

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ordering the same number in 2016.

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Body

VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ordering the same number in 2016.

The new agreement, disclosed by Boeing at the Farnborough air show, spans 80 Max 10s and 20 Max 8s. The airframer puts its list-price value at \$12.7 billion.

Boeing

VietJet will become the largest Max 10 customer in Asia once the deal is completed, Boeing notes. It adds that the privately owned Vietnamese low-cost carrier will use the Max 10 "to satisfy surging demand on high-density domestic routes" and to serve "popular destinations throughout Asia".

Nguyen Thi Phuong Thao, the airline's chief executive, states: "These new airplanes will fit perfectly into our growth strategy, providing the efficiency and range for VietJet to expand its route network and offer more international destinations for our customers and expand alliances across Asia-Pacific."

Boeing says that, as part of the agreement, it will partner with VietJet to "enhance technical and engineering expertise" and train pilots and technicians in Vietnam. The airframer adds that it will "support VietJet in improving management capabilities at the airline and in the country".

In 2016, VietJet finalised an order for 100 high-capacity 737 Max 8 jets.

Boeing says the follow-on deal will be reflected on its orders and deliveries website once finalised.

Get all the coverage from the Farnborough air show on our dedicated event page

JOURNAL : Farmers Weekly

The Cereals event returned to its regular southern haunt at Chrishall Grange, Cambridgeshire this week. Farmers Weekly's machinery team picked out a few of the latest machines on show.

Weaving GD8000T drill

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Weaving's GD drill has proved to be hot property on the zero-til scene since its launch in 2015 and, with more than 300 now working across the UK, the company has set its sights on the 8m market.

See also: NAAC farm contractor charges 2018/19

The extra wingspan has required a complete redesign of the drill's running gear, including a chunky chassis that runs underneath the hopper, a link-arm hitch and massive low ground pressure tyres on the back, although it can still fold to 3m for transport.

There are also double metering units and distribution heads to keep the slanted disc coulters fed from the 4t hopper. Currently it's only geared up to handle grain, but a split version will be launched later.

Spacings between the 48 low-draft coulters are set at 16.7cm, although the added bulk means it will want 280hp up front.

The drill is built at Weaving's Evesham base and a standard spec model is expected to list at about £89,000. However, that figure will climb if it's ordered with Avadex, fertiliser or slug pellet applicators.

Amazone Hektor plough

Following its buyout of ailing cultivations maker Vogel and Noot, Amazone has added another plough to its ever-growing line-up.

The semi-mounted Hektor is based on the old V and N model of the same name, but has had a number of upgrades, particularly to the headstock.

Here, Amazone engineers have reworked the turnover mechanism and improved the damping so the plough turns over more smoothly. Apparently this was a particular weak spot on the previous model. It's also rated to 360hp.

Furrow width adjustment is manual from 15 to 19in and the standard shearbolt version can be specced with six, seven or eight furrows.

Those on stonier ground also have the option of hydraulic auto reset, although this isn't available on the biggest model.

Buyers can choose from eight different mould boards and there's tool-free setting of both the working depth and pitch. At the rear, a wide depth/transport wheel with hydro-pneumatic suspension comes as standard.

The Hektor, along with the rest of the Amazone plough range, is being built at the former Vogel and Noot factory in Hungary.

This includes the maker's in-house developed Cayron, which was originally put together in Leipzig.

List price of the eight-furrow Hektor model pictured is £42,940.

Househam Harrier

After a troublesome six-year existence, Househam has replaced its mid-ranking Merlin sprayer with a fresh-faced Harrier machine.

This follows on from the launch of the new flagship Predator at Cereals last year, which signalled the **end** for the Merlin and coincided with customer comments stating that the Merlin bore little resemblance to the machine that was released in 2012.

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Tipping the scales at 8,500kg unladen, the machine has a single-piece chassis with oscillating A-frame axles on the front and rear, which has significantly improved the ride and weight distribution, we're told.

Running the same 240hp MTU six-pot engine that was in the outgoing Merlin, it has a choice of boom widths from the twin-fold 24m to larger 36m units.

There are three tank sizes with the smaller 4,000-litre coming in fibreglass while the larger 5,000- and 6,000-litre tanks are stainless steel.

A new cab, fitted out with much of the same technology as the Merlin, includes the TMC screen and auto section control through the Field master terminal and the option of Househam's own or Norac boom levelling.

Built at the Househam HQ in Lincolnshire, it is available to order now starting at about £160,000.

JOURNAL : Farmers Weekly

Bus and bin lorry technology is being used on an Aberdeenshire farm to shave 20% off its red diesel bill and eke extra power from existing machines without tampering with the engine.

The retrofit hydrogen electrolyser comes as a bolt-on, suitcase-sized box and can be plumbed into the air intake on pretty much any vehicle, including tractors, telehandlers and 4x4s.

It uses basic physics to split distilled water into its constituent parts – oxygen and hydrogen – by running an electric current through it via two probes. This oxyhydrogen is then fed into the intake alongside the standard flow to alter the characteristics of the air in the combustion chamber.

In doing so, it produces a cleaner and quicker combustive explosion that has been proven to cut nasty emissions by more than 80%.

This isn't enough to provide a sole source of power on its own – it has to run alongside a standard diesel (or petrol) combustion engine – but, because the hydrolysis process happens on the move, there's no need to organise storage or transportation of the second fuel.

See also: Converting 4x4s to red diesel – how to stay road legal

High-tech buses

Dave and Nicola Barron were the first farmers in the UK to fit the system to an agricultural vehicle.

Their family farm at Nether Aden, near Mintlaw, Peterhead, is one of nine businesses taking part in a trial run by the Scottish government looking into the options for reducing agricultural carbon emissions.

Mr Barron first came across the technology on Aberdeen's bus fleet and felt it offered a good opportunity to significantly reduce emissions caused by his machinery fleet.

But, while the council's fleet runs on pure hydrogen, the bolt-on system offered by Barnsley-based Water Fuel Engineering is simpler and cheaper because it's designed to work alongside a conventional engine rather than eliminate its use altogether.

The hydrolyser was fitted to Mr Barron's JCB telehandler in September last year – and then on his New Holland TS115 tractor a couple of months ago – with grants for the cost supplied by the Scottish government.

How does it work?

Gas is produced on-the-go, meaning there's no added responsibility for producing, distributing or storing the hydrogen.

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The simple kit mounts on the telehandler's chassis (just above the hydraulic oil sight glass) and includes an electrolyser, control unit and water reservoir, which must be topped up periodically.

It works by running an electric current through distilled water to produce oxy-hydrogen gas, which is collected in a test tube that can be seen bubbling from the cab. This then filters into the engine's air intake to supplement the supply of diesel at a rate of about 6%, which, in turn, transforms Mr Barron's run-of-the-mill Loadall into a hybrid vehicle.

Adding the gas accelerates the engine's combustion process, causing a cleaner, faster and more efficient burn of the diesel mixture. This extra efficiency helps to reduce fuel use.

If the box stops working for any reason, the machine will revert to conventional diesel power.

Results

Extensive trials have shown stacks of benefits. The headline figures include fuel savings that have ranged from 11% to 29% and a reduction in emissions of up to 80%.

However, the clean-burning nature of the system means there are other advantages that can add a healthy cost saving to a farm's annual bill. For instance, diesel particulate filters will need to be replaced less frequently on modern tractors and oil change hours can also be extended.

That's because mixing oxy-hydrogen with the diesel produces an earlier and more mechanically efficient explosion at the piston. Because of the better burn of the diesel mix there's also an argument that engines with the system fitted will no longer need AdBlue additive.

Mr Barron saw fuel use on his JCB drop from 6.84 litres/hour to 5.92 litres/hour after the kit had been fitted.

This equates to a 13.5% fuel saving, though it is expected to get closer to 25% as the company has since increased the electrical current being used to produce the hydrogen, which, in turn, will improve diesel efficiency.

And with the farm's telehandler clocking up around 1,000 hours/year – a 920-litre fuel saving – he will trim at least £500/year from his red diesel bill. And if AdBlue is removed it would cut another £500 from the farm's annual running costs.

Mr Barron also reports a noticeable increase in usable power, which has meant increasing working speeds and less time spent in the field.

Making the bills stack up

The major stumbling block for most interested parties is likely to be the price.

The Scottish government stumped up £7,500 for Mr Barron's first kit (he paid for the second himself), but Water Fuel Engineering has since altered its pricing to make the system more accessible for other farmers by structuring it to match the potential fuel savings.

It can now be retrofitted to any tractor or loader for about £1,500 followed by monthly fees of £110, which the company says should still allow farmers to benefit financially from the fuel savings.

The kit has a life expectancy of 20 years and has since been fitted to a Land Rover Defender in Aberdeenshire, which is now achieving 24% fuel savings on white diesel.

Investment costs are also tiny compared to a full switch to hydrogen power. Hydrogen fuel costs about £10/litre and the machines are very expensive to buy, plus the fuel tanks are heavy and the fuel must be stored carefully.

12V alkaline electrolyser

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Operating voltage 12V to 14.2V

Consumption Up to 21amps

Gas production Up to 5 litres/minute

Dimensions 250mm x 200mm x 200mm (wxhxd)

Hydrolysis performance

Carbon dioxide 64% reduction

Carbon monoxide 85% reduction

Hydrocarbons 53% reduction

Opacity (soot) 52% reduction

Fuel use 35% reduction

Farming for a Better Climate initiative

Dave and Nicola Barron are taking part in a Scottish government-backed scheme that encourages farmers to consider their carbon footprint.

The programme has been running for six years and currently has nine focus farms dotted around Scotland. Each farm is carbon audited and is encouraged to trial new farming systems and monitor the effect they have on efficiency and profitability.

Fitting the JCB's hydrolyser was just one of the initiatives Mr Barron has integrated into his mixed farming system.

He has also increased his spring cropping area to cut fertiliser use, aims to dry all of his grain in a carbon-neutral fashion using a biomass boiler and solar power and has incorporated green manures into his cropping plans.

He is also keen to explore the potential of storing hydrogen gas as part of a farming co-operative.

FARM FACTS: Nether Aden, Mintlaw, Aberdeenshire

Area: 210ha

Crops: Spring barley, winter barley, whole crop, winter wheat, grass

Livestock: 140 suckler cows

Machinery:

Tractors – New Holland TS115 and T6.180

Telehandler – JCB 526

Combine – New Holland TX32

Implements – Kuhn Accord 3m, 24m Berthoud Racer sprayer

JOURNAL : Farmers Weekly

Growers in England who had crop drilling plans disrupted by bad weather must apply for a derogation to the three-crop rule before 30 June, warns the NFU .

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Snow, ice and heavy rain across Europe in March and April prevented access to land for many growers and this meant they could not fulfil EU greening rules on crop diversification.

See also: UK arable growers win three-crop rule exemption

The diversification regulation, or so-called three-crop rule, means at least three different crops must be grown on farms with more than 30ha of arable land.

On farms where the arable area exceeds 10ha, two or more different crops must be grown to qualify for greening payments.

Back in the spring it quickly became clear that low temperatures and soil conditions meant it was impossible to carry out the necessary fieldwork.

A number of EU member states applied for the rule to be suspended and Scotland, Northern Ireland and the rest of the UK followed suit.

To qualify Defra had to submit data on rainfall, rain days and temperatures to the EU Commission. While it was accepted the derogation could apply for the whole of Scotland and Northern Ireland, England's farmers were required to submit an application based on their own location.

The derogation does not entirely suspend the diversification rule, warned NFU senior BPS adviser Richard Wordsworth.

"Where the requirement was three crops, the derogation will allow two without jeopardising payments, as long as the application is lodged by the 30 June deadline," he said.

Mr Wordsworth encouraged farmers who were prevented from drilling spring crops to act immediately.

"The application process is not at all onerous and does not require pages of form-filling," he said.

To help growers understand the process, the NFU has drawn together a Q&A to provide advice to potential applicants.

What you need to know about the three-crop rule derogation

What parts of England does the wet weather derogation apply to? It applies across the whole of England.

Does the derogation apply to all farmers who need to undertake greening? No, the derogation only applies to the rules for crop diversification and only to those farmers who would normally be required to have a minimum of three crops – in other words, those who have more than 30ha of arable land on their claim form. Farmers who have been affected by the wet weather can apply to the RPA for a derogation to allow them to have two crops instead of three.

Does the derogation need to be applied for? Yes. Farmers affected must apply to the RPA to take advantage of this derogation. Derogation requests can either be made by email or by telephone, and must be received by the RPA by 30 June 2018. Send emails to ruralpayments@defra.gsi.gov.uk using the subject line "Wet weather derogation request".

What information needs to be included? The following information should be provided in the body of the email:

SBI and name of the business making the request

A list of the affected land parcels

What crops you intended to plant

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If you are unable to email this information to the RPA, requests can be made by calling 03000 200301.

You will need to provide the RPA with all of the above information.

Am I required to do anything else to take advantage of this derogation? It is important to keep evidence of your original cropping plans, as this may be required during an inspection.

Why doesn't this derogation apply to those farmers that are only required to have two crops (10-30ha of arable land)? The regulation does not allow for a derogation in this situation. However, there are force majeure and exceptional circumstances provisions that may also be applicable. Further information can be found on p109 of the 2018 BPS handbook.

JOURNAL : Farmers Weekly

Actor Brian Blessed launched a foul-mouthed tirade against farmers who support badger culling to combat bovine tuberculosis.

The expletive-loaded outburst happened after he was booed by guests at a 200-strong dinner held to coincide with last week's Pig and Poultry event.

The actor had been booked by farm business ABN to host the dinner, held at the Coombe Abbey hotel on the outskirts of Coventry.

See also: Expert advice: What happens if my herd fails a TB test?

Dressed as a Tudor king, he was asked what laws he would bring in if he were monarch.

Mr Blessed said he would ban badger culling to combat bovine TB in cattle – prompting boos from farmers at the dinner, according to the Sun.

You're all c***s

He replied: "You're all c***s, I hope you all die of TB," before storming out, yelling it had been a "s*** idea" for him to host the pig and poultry farmers' dinner, it reported.

One guest, who asked not to be named, told the paper: "It was after dinner and the booze had been flowing.

"Brian used the C-word before flouncing out. His views on animal welfare are well known and he wasn't going to back down, even in a room full of farmers."

'Worth the ticket'

"But a few there have said it was worth the price of the ticket just to see Brian go off on one."

Mr Blessed's agent Stephen Gittins told the Sun it was well known he was a "protector of badgers".

"Brian and the likes of Brian May are very supportive of ending the culls. If someone was to ask him his position on badger culling, I'm not surprised he said he was against it."

JOURNAL : Farmers Weekly

An initiative to make the nation's school dinners 100% traceable from farm to fork is being launched by BBC Countryfile star Adam Henson on Friday (11 May).

The project, called "Please Sir! Feed Me Truth" aims to address how the nation values food provenance and to reconnect the next generation of consumers with where their food comes from.

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See also: How a group of beef farmers took over their supply chain

Using traceability technology, Mr Henson hopes every school in the country will take up the scheme and commit to making their supply chains transparent.

Mr Henson said: "The appreciation and understanding of food starts with children simply knowing how and where the ingredients on their plate were produced. But they don't."

"They have no idea. Every school dinner has a story to tell - a journey. It leaves a footprint. We need every child to explore it and be inspired and learn from it."

Retail chain Midcounties Cooperative are funding an educational resource that will arrange field trips and school visits to give children first-hand experience of the journey food makes to arrive on their plates.

Food industry least transparent

The project is being run by Happerley, a farmer-founded not-for-profit which goal is to enhance food supply chain transparency in the UK.

"The food industry remains one of the least transparent and we are not told the origins of most of the ingredients in our food," said farmer and Happerley founder, Matthew Rymer.

"Children are particularly susceptible to buying into brands and clever marketing because they do not know or understand better."

Mr Rymer added, "By working through the food chain to deliver the full story of the ingredients that make their school dinners, our hope is we can create a seismic change in understanding for the future that impacts positively on their health and nutrition, the environment and sustainable food production."

JOURNAL : Farmers Weekly

Establishment is widely recognised as the main challenge when it comes to growing a successful crop of oilseed rape, get it wrong and yield potential is compromised from the start.

With its small seed size, oilseed rape is particularly susceptible at the seedling stage, when poor seed-bed conditions, unpredictable weather and pest pressures can turn a risky situation into crop failure.

Crops which establish quickly and get off to a good start in mild autumn conditions are better able to withstand these pressures and are far more likely to reach their full yield potential.

See also: Oilseed rape growers urged to take action against clubroot

Yield potential

That yield potential is anything up to 9t/ha, suggests the team behind the Adas YEN competition, which saw the 2017 winner achieve a yield of 6.4t/ha.

Their findings show top-performing farms often see yields in excess of 5t/ha, although the average oilseed rape yield in the UK is closer to 3t/ha.

Their work also shows seed number and seed weight determine oilseed rape yield. To maximise seed number, the canopy has to be managed to reach the right size at flowering so it will go on to produce the optimum pod number.

Establishment, along with seed rate and nutrition, are the key factors in achieving this.

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To get good crop establishment, growers must look at soil conditions before they focus on any agronomic considerations, as the crop is more likely to establish successfully in a well-structured soil.

Soil conditions should also dictate the time of drilling, rather than calendar date. This is illustrated by the range of sowing dates used by the YEN entrants, from 6 August to 15 September, with the average sowing date being 23 August.

Analysis by Bayer shows the UK oilseed rape crop is drilled about two weeks earlier than five years ago. Sowing dates in the third week of August are now the most popular.

Seed-bed conditions

As with most crops, the aim is to create a seed-bed with a fine tilth. A useful rule of thumb is the smaller the seed, the smaller the aggregate needed around it – there is research to show percentage establishment falls dramatically as aggregate size increases.

Good seed-to-soil contact is important for best results, as it allows moisture to get through the seed coat and give good germination. In dry conditions and on heavy soils, soil aggregate size influences the potential for this.

Where soil structure is good, it can usually be drilled without any further action. However, some soils will need some help, as compaction inhibits oilseed rape root growth and limits its access to moisture and nutrients.

Any restructuring done for oilseed rape should have benefits for future crops, helping to spread the cost of the operation.

A good soil structure that allows water infiltration will also reduce the risk of any herbicide run-off and help to protect watercourses – something becoming increasingly important for preventing restrictions on their use.

Assessing soil structure should start with the previous crop, or just after harvest, explains Philip Wright, independent consultant at Wright Resolutions, who suggests the following steps:

Dig down with a spade to look at soil profile

Identify where there is a compacted layer

Plan the timing of restructuring to suit soil moisture – if it's too wet, it won't work

Cultivate to the appropriate depth to deal with any problem

Dig down afterwards to check results

"It's all about providing the optimum conditions for crop growth," he explains.

"With oilseed rape, you are placing the seed at a precise depth, which you can't do with a cloddy seed-bed or where there's a compacted layer.

"Remember too that residue management can affect establishment, especially if surface trash is poorly distributed."

Sowing depth

A consistent sowing depth is more important than the actual depth – with the season and conditions also playing their part. For most conditions, seed should be sown at a depth of 2-3cm, and no deeper than 5cm.

Variable sowing depth means there is likely to be patches of delayed or failed growth, having a detrimental effect on growth and creating management issues throughout the season.

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Consolidation is also important, as it helps to retain moisture, ensures good seed-to-soil contact and assists with slug control. It also ensures optimum performance where soil applied herbicides are used.

In dry conditions, seed should be sown as soon as possible after cultivations to minimise soil moisture loss, followed by rolling.

Drilling date

Winter oilseed rape is mainly drilled between mid-August and mid-September in England, with crops in Scotland going in from mid-August to early September.

High yields can be achieved from drilling at any of these times, but a significant yield reduction is more likely with crops drilled after mid-September.

Based on average temperatures in England, crops sown in August will take about 10 days to emerge, while those sown in September will take 14 days. Oilseed rape needs 90C days for germination and 140C days for one pair of leaves.

Seed rate and plant population

Seed rates should be geared to achieving about 25-35 plants/sq m for both hybrid and conventional varieties.

The seed rate necessary to achieve this target will depend on the percentage plant establishment – which in turn depends on the conditions and slug pressure. Predicting plant establishment is difficult, but rates tend to range from 50-80%, with 70-80% being typical in most seasons.

The practice of allowing some margin for uncertain weather and pest pressures has resulted in a wide range of seed rates being used on-farm.

In general, conventional varieties are sown at 50-120 seeds/sq m, while hybrids go in at 50-70 seeds/sq m. Where 70-80% establishment is being achieved, the optimum seed rate is 35-40 seeds/sq m.

However, there is scope to reduce seed rates, believes Pete Berry of Adas, as the crop has good ability to compensate for lower plant populations and is less likely to lodge in these conditions. Thick crops are at risk from weaker stems, poor light penetration and higher light reflectance – which may reduce yields.

In contrast, going too low with seed rates risks there not being enough pods or seeds to produce a reasonable yield.

“It’s interesting to note the two top performers in the YEN competition both achieved very high yields from low plant populations.

“One of them sowed 30 seeds to get 15 plants/sq m, while the other sowed 45 seeds to get 30 plants/sq m.”

Increasing row width

Establishing oilseed rape in rows wider than 30cm apart has become more common in recent years.

Adas work suggests row width can be increased up to 48cm, without affecting yields. Going from 48cm up to 72cm did reduce yield potential.

Where seed rates higher than 60 seeds/sq m are used, there is potential for a high degree of plant crowding and competition within the rows.

Wider rows also leave an amount of soil unprotected, increasing the risk of weeds germinating and soil run-off.

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In wider rows, the optimum plant population is lower than that for crops sown in traditional row spacings. With some systems, growers now work to a target plant number/linear metre, to get the right population for high yields.

JOURNAL : Farmers Weekly

Farmers should avoid cutting corners when it comes to buying grass seed and should use the Recommended List to ensure they are selecting the best varieties possible.

That was the message from independent grassland adviser Chris Duller at the Royal Welsh Grassland event last week (16 May).

"[Grass] will hopefully be in the ground for 5-10 years. Don't cut corners when it comes to buying a top-quality seed mix," he warned.

See also: 12 varieties added to grass and clover recommended lists

Be clear on the job you want it for

About 75% seed currently sold in the UK is sold as cut and graze off the shelf, Mr Duller explained. The problem with this tactic was it compromises performance, he added.

"If you end up with a mix trying to do everything you will end up making compromises. Be clear in your mind what it's going to do."

For example, he said grazing required denser swards whereas grass for cutting would need to be more open.

"For some farmers, a cut and graze mix will suit [those taking only one cut], but there's advantages to being more specialised."

Beware of fillers

Mr Duller also warned farmers about using mixes containing "fillers" or cheaper varieties that had fallen off the Recommended List.

"Beware of fillers if they have been taken off for a good reason; because they have been out-classed in terms of yield or have changed in terms of disease resistance or quality.

"Saving money by buying varieties [that are poorer] makes no commercial sense."

Instead, he encouraged farmers to challenge their seed merchant and find out more about the variety in question.

Picking the best varieties off the list

When choosing varieties to add to their "shopping list" he advised farmers to go through the list with a highlighter and pick out the ones with 5%+ gains against others, not 2-3%, because 5%+ would make the most difference on farm.

For example, he said AberGain had the highest grazing value of 78.6 which equated to an extra 7% more grass than average.

"Remember, one point increase in D value is worth a 5% improvement in animal performance."

JOURNAL : Farmers Weekly

Farmers are pushing up costs by spending too much money on buying new machinery, an AHDB survey has revealed.

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The survey, carried out in partnership with Strutt & Parker, looked at machinery costs across the levy board's 21 monitor farms and revealed a huge variation in machinery costs a hectare.

Total machinery costs varied from £113/ha to £290/ha across the farms which ranged in size from 97ha to 1,278ha.

Economies of scale

Despite this size difference there was no benefit from economies of scale, according to the AHDB's knowledge exchange manager in the East Midlands, Harry Henderson.

"We expected to see the larger farms able to spread machinery investments across their wider hectareage and realise their economies of scale," Mr Henderson said.

"But this wasn't the case. Some of the largest farms had the highest costs and so are simply spending too much on buying new machinery," he said.

See also: Farmers advised to allocate machinery spending better

The variation was also not linked directly to different soil types.

"Because the farms stretch from Cornwall to Moray and have all types of soil, we also expected to see units with heavier land having the highest cost.

"Again we were able to rule that out with farms on so-called boys' land having some of the higher costs while some of the smallest farm businesses on heavier land were running at the lowest cost," Mr Henderson said.

Bad weather

He noted some farms justified purchasing larger machinery because the ability to carry out operations more quickly could offset any risks of bad weather.

"While wet springs and catchy harvests mean many farmers are keen to have increased drilling or harvesting capacity, farmers need to look at this policy in terms of cost to the business."

Heavier, larger machines can also lead to deep compaction which can take years to correct," Mr Henderson pointed out.

Mr Henderson suggested farms with higher costs should review their buying policy.

It is important farmers don't succumb to machinery envy and compete with the neighbours for having the biggest kit, he said.

"Farms with the biggest newest and shiniest machinery are not necessarily the best run farm businesses," Mr Henderson stressed.

Usage review

The AHDB recommended the first step in cutting costs was to review their tractor usage and to keep what they already had in the shed for longer.

"Trade-in values will be lower but keeping the machine and riding out the steep depreciation curve until it has flattened out is still cheaper than early replacement.

"Depreciation is a real cost and even having to spend more on repairs, new tyres or a gearbox can be cheaper than buying a brand new machine," Mr Henderson said.

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In the longer term, a planned replacement policy, a review of the whole system and appropriate machinery purchase according to the operation were all important factors.

Farmbench

"Farmers should also use AHDB's Farmbench to help assess their machinery and business costs," Mr Henderson said.

Farmbench is one of the tools for farmers to help manage resilience to risks and to cope with volatility. It is a free to levy payer service for farmers to analyse their own cost structure and then compare costs with other local growers.

"It's a very powerful tool to see where your business might be poorly performing in comparison to others and need some attention."

He added joining a benchmarking group was even more valuable.

"Figures for each farmer in the group are still anonymous but meetings can discuss how to tackle them and share knowledge and tips on how to get the most from machinery," he added.

Machinery costs range (£/ha)

Overall

£113

£290

Depreciation

£4

£120

Repairs

£20

£62

Ploughing

£40

£97

Combining

£41

£97

Diesel

£28

£86

Source: AHDB/Strutt&Parker

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JOURNAL : Farmers Weekly

Plans to require all cattle keepers in Scotland to tag cattle with EID tags are to be announced at the Highland Show next week.

The current timeline will mean all newborn calves will have to be EID tagged by 1 January 2020, with discussions continuing about how to roll them out to the rest of the national herd.

It is likely that all cattle leaving a holding will need EID tags by 1 June 2022 – meaning youngstock will already have them by this stage and only adults will require retagging.

See also: How a large Luing beef herd is managed on the Scottish isles

The change, which is still subject to the passage of legislation in Holyrood, will play a big part in making paper records for cattle a thing of the past, says ScotEID director Bob Yuill.

“Retagging will be kept to an absolute minimum,” he promised, but said that farmers need to recognise that there is a cost – both financial and administrative – to running the old and new system in parallel for longer than necessary.

Tag manufacturers price a pair of cattle EID tags at about £2 more than conventional tags, but costs will be kept down by the EID number being the same as the visible number, meaning there will be no obligation on farmers to purchase EID readers if they do not want to.

But Mr Yuill said there will be significant benefits from embracing the benefits EID tags have to offer. These include reduced workloads during TB testing, with cattle able to be identified electronically rather than the dangerous work of scraping dirt off tags on cattle that are stressed and aggressive.

It will also mean an end to animals having to be destroyed at abattoirs rather than enter the food chain if they arrive for slaughter with the wrong paper passport, and it is likely to be simpler to move cattle between farms with the same holding number.

EU deadline approaching

All EU member states were ordered in June 2014 to start preparing their cattle traceability systems for compatibility with EID technology, with a deadline for compliance set by the end of 2019.

Scotland is significantly further ahead of England and Wales, as they are close to completing the backend software required to manage an EID-based movement service.

In contrast, work at Defra on the Livestock Information Program – the replacement for CTS Online – has not even begun, with pre-consultation discussions still taking place, according to NFU chief livestock adviser John Royle.

The proposed multispecies database would allow real-time movement recording of all livestock and bring about huge savings for farmers, markets and abattoirs by eliminating paper records and reducing the number of on-farm inspections, he says.

But despite the relatively short time left to deliver a large IT project, he is bullish about the prospects of the system being ready in time, saying there are comparable systems in other industries that deliver traceability of goods that can hopefully be adapted.

Scottish farmers wishing to learn more about the changes can visit the ScotEID stand at the Highland Show on Avenue 7 between NFU Scotland and the SRUC.

JOURNAL : Farmers Weekly

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The new season UK ammonium nitrate market kicked off a good £40/t higher than last year, with limited June and July tonnages being snapped up as soon as they were offered.

CF issued a price which put June deliveries on to farm at £220/t late last week, with July at £7/t more.

Heavy uptake meant the book was closed on these two months within a day or so, even though prices were about 10% higher than the trade had been expecting.

See also: 6 ways arable farms can reduce business risk

The long winter and late wet spring delayed demand from the grassland sector and some arable areas until relatively recently, resulting in a background of very low stocks and pent-up demand, according to traders.

CF's list price put another £6/t on to the price for August deliveries, putting product on farm at £233/t. However, with fewer farms wanting to take delivery during harvest, by midweek the August delivered to farm price had slipped to £230-£233/t.

The trade expects another month's prices to be released in about a week to 10 days.

There is relatively little imported material available and where it is on offer, prices are just under the level of UK product by £1-£3/t. Urea offers are also few and far between, at £245-£255/t for July-September deliveries.

Prices have increased as traders have been reluctant to commit to cargoes on a rising market.

JOURNAL : Farmers Weekly

The UK pig industry reduced its antibiotics use by 28% in 2017, meaning that in the past two years, use has more than halved.

The latest reduction brings the use level to 131mg/PCU, which is a continuation of the cut made between 2015 and 2016, when it was reduced by 34% to 183mg/PCU.

The data has come from the electronic medicine book for pigs (eMB-Pigs), which now represents 87% of pigs slaughtered in the UK.

The news was welcomed by industry leaders. Professor Peter Borriello, CEO of the Veterinary Medicines Directorate (VMD), congratulated the pig sector on the "impressive reductions".

"These achievements are the result of high-level collaboration across the industry to deliver on a challenging and rigorous ongoing plan to reduce and refine antibiotics use, while maintaining the health and welfare of pigs," he said.

Ruma targets

News of this reduction comes just seven months after antibiotics use targets were set by the Responsible Use of Medicines in Agriculture Alliance (Ruma) for each livestock sector.

See also: Sector-specific antibiotic targets and what they mean for farmers

The pig industry's 2020 target is a use level of 99mg/PCU, a 60% reduction from 2015 levels.

The 2017 figure of 131mg/PCU is 3mg/PCU above the target of 128mg/PCU, but Gwyn Jones, chairman of Ruma, says: "These latest results prove the targets the pig sector set itself are both challenging and proportionate.

"Each year will be progressively harder to achieve and for this reason our foot must stay firmly on the pedal."

Tackling endemic disease

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Ruma antibiotics reduction targets for pig industry

2016 – 171mg/PCU

2017 – 128mg/PCU

2018 – 115.5mg/PCU

2019 – 104mg/PCU

2020 – 99mg/PCU

The National Pig Association's senior adviser, Georgina Crayford, said the figure demonstrates the continued hard work and commitment of farmers, veterinarians and advisers.

"We knew it would be challenging to meet the agreed reduction targets, but the pig sector is rising to that challenge and making progress every day," she said.

"Nonetheless, the pig industry's efforts will not stop here. There is further work to be done to reduce antibiotics use, such as improved collaboration between farmers to tackle endemic disease."

The electronic medicine book for pigs

The eMB, an electronic version of the paper medicines book, was developed by the VMD and AHDB Pork.

All Red Tractor Pork members have been required to record quarterly antibiotics information on the eMB – which is available to all UK producers and supported by all the levy bodies – since 11 November 2017.

JOURNAL : Farmers Weekly

Police are appealing for help to track down the driver of a red tractor who helped emergency services at the scene of a fatal crash in Cornwall on 14 May.

The accident happened on the A390 near Gunnislake in the east of the county, where a 74-year-old local man was taken to Derriford Hospital but later died of his injuries.

See also: Yorkshire farmer cleared of careless driving charge

"Police are appealing for a specific witness following a fatal collision on the A390 at Gunnislake, Cornwall, on Monday 14 May 2018," said a spokesman for Devon and Cornwall Constabulary.

"Emergency services were called to the scene at about 9.10am to reports that a Vauxhall Meriva and a Fiat Punto at had collided on the A390 at St Ann's Chapel.

"The driver of a red tractor travelling in the direction of Gunnislake stopped and assisted at the scene."

Officers from the serious collisions investigation team based in Bodmin are appealing for the tractor driver to contact Devon and Cornwall Constabulary by calling 101 or emailing 101@dc.police.uk quoting log number 146 of 14/05/18.

JOURNAL : Farmers Weekly

Arable businesses earned more from both in-hand and contract farming agreements (CFAs) for 2017 crops compared with 2016.

Farmer returns in Savills' annual arable benchmarking survey rose by about 75% for in-hand businesses, to £137/ha, while CFAs returned £226/ha to the farmer, a 53% rise on 2016 results.

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However the figures also show fixed costs rising and representing a bigger share of crop price, despite the rise in market prices.

See also: How can I recruit good farm staff?

“Given the uncertainty associated with Brexit, we are focusing on reducing costs and preparing businesses for change,” says Andrew Wraith, Savills’ head of food and farming.

Machinery expenditure should be focused on first for most arable units, he says, with the benchmarking exercise and recent farm business reviews showing there is still a massive range of costs in this area.

“You always have to look at each farm on its merits so there are no formulas but everyone should be asking ‘could we do this differently?’,” says Mr Wraith.

Full joint-venture machinery and labour sharing is an option but there are many other variations which could help reduce arable production costs before such a step is taken, he suggests.

Questions to ask include:

Are we carrying an element of “insurance” kit to allow us to cover all eventualities?

Could some operations be covered by hiring or contractors?

How do our internal costs compare with what a contractor would charge for a stubble-to-stubble operation? Nine times out of 10 this is a cheaper option, says Mr Wraith.

Does kit we are considering buying need have to have all the bells and whistles or would a good straightforward piece of second-hand equipment do the job?

The Savills arable benchmarking survey covers 20,000ha. Within this farms have an average combinable crop area of 325ha.

Harvest 2017 – contract farming returned more to farmer than in-hand operations (£/ha)

Combinable crop gross margin

643

633

Total income

643

633

Machinery costs

88

Depreciation

97

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Energy

80

Labour

156

Contractor charges

85

407

Total machinery, power, labour

506

407

Farmer return (margin after machinery, power and labour costs

137

226

Source: Savills Research

JOURNAL : Farmers Weekly

Dairy **co-op** Arla has increased its conventional milk price by two euro cents, equivalent to 1.92p/litre for manufacturing litres from 1 July.

The rise takes the price paid to the **co-op**'s 2,400 UK producers to 30.5p/litre for litres with a constituent content of 4.2% butterfat and 3.4% protein.

See also: Where are milk prices headed in rising dairy markets?

For ease of comparison, the rise equates to a 1.8p/litre price injection for liquid litres with a constituent content of 4% fat and 3.3% protein, taking July's price to 29.31p/litre.

Arla cited lower than anticipated European milk production a result of adverse weather in the spring coupled with strong demand, particularly from Asia driving stronger dairy commodity prices.

"I am confident this will be welcome news to our farmer owners, who have been experiencing challenging weather conditions, which have dampened milk volumes from farm," said Arla Foods amba board director, Johnnie Russell.

Mr Russell added: "I am pleased to say that the overall outlook for the coming months remains positive."

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This week also saw the processor announce it would see a change of leadership at the top of the UK arm of the business.

UK managing director Tomas Pietrangeli announced on Tuesday (19 June) he would be leaving the business to be replaced by senior vice-president of sales for Arla Foods UK, Ash Amirahmadi – a figure believed to be popular among the company's UK-based farmer owners.

Expert analysis: Peter Meehan, INTL FC Stone

The recent strength in European dairy commodity prices has ground to somewhat of a halt over the past few weeks.

Improved milk collections and an apparent softening of demand saw spot butter prices fall 1.5% over the past two weeks.

Spot skim-milk powder (SMP) prices also stagnated over the past week amid fears of international trade wars, steady supplies and strong stocks weighing on market sentiment.

On the supply side, lower milk collections in April for the UK, France, the Netherlands and Ireland were more than offset by strong increases for Germany, Italy and Poland.

Further to this, New Zealand and US milk collections for May also showed strong numbers.

On the demand-side, EU dairy exports were somewhat muted in April with cheese exports seeing their lowest April since 2015, while butter exports were also lower.

SMP exports meanwhile remained reasonably strong. The Global Dairy Trade auction in New Zealand was also lower this week, down 1.2% posting its seventh negative event in nine.

The past two weeks have also seen EEX butter and SMP futures' prices ease, with butter futures down 5.7% on average since the start of June, driven by the same fundamentals that are leading the spot market lower.

JOURNAL : Farmers Weekly

The NFU has written to the UK competition watchdog to express concerns about the planned £10bn merger between Sainsbury's and supermarket rival Asda.

The Competition and Markets Authority (CMA) invited comments from third parties about the effect the merger could have on competition in the UK, before a formal investigation can begin.

The deadline for responses was Monday (4 June).

See also: Small suppliers hit hardest by Asda-Sainsbury's merger

On 30 April, Sainsbury's and Asda announced plans to create the UK's biggest supermarket chain, equating to about 31% of the supermarket sector.

Sainsbury's promised the tie-up would result in price cuts of 10% for consumers, raising fears their suppliers would take a hit.

Competition fears

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In a letter to the CMA, NFU director general Terry Jones expressed concern over the merger arguing it could hurt competition and consumers' interests.

Mr Jones said: "Farmers and growers form the foundations of grocery supply chains – providing the British public with safe, traceable and affordable food for all incomes.

"The consolidation of retail buying power has been of great concern to our members for many years.

"If buyers working for this enlarged business abuse its market power and make unreasonable demands on suppliers by transferring excessive risk and unexpected cost to suppliers, which in turn damages their ability to innovate and invest, then ultimately this will impact on choice and availability for shoppers."

Supply chain impact

According to reports, the NFU understands ministers at Defra and the Department for Business, Energy & Industrial Strategy have called for the CMA to consider the impact on the supply chain – and especially on small suppliers.

The NFU has welcomed these calls and it has asked the CMA to outline how they will reflect this in their investigation.

"The NFU will be examining this proposed merger very carefully," added Mr Jones. "We will be undertaking our own modelling to examine the effects it could have on farm businesses and their offering to the public.

"Officially registering our interest in this merger with the CMA is an important first step."

The CMA plans to publish the third-party responses later this summer, before a formal investigation can begin "in the coming months".

If it is approved by regulators, the Asda-Sainsbury's merger will surpass market leader Tesco, which has about 25% of the market share.

JOURNAL : Farmers Weekly

A full farm dispersal sale took place on Saturday 12 May in Middleton Tyas, North Yorkshire, and attracted a huge crowd of potential buyers from across the UK.

However, many sale-goers left empty-handed as the well-maintained machinery priced many buyers out of the running.

Unsurprisingly, the farm's 2010 Claas Tucano 320 combine made the most money. The German machine was well specced with a self-levelling 5.4m Vari header and a paltry 640 hours on the clock allowed the bidding to run up to £64,000.

See also: Tips for buying a set of second-hand triple mowers

The pick of the tractor fleet was a 2011 Deutz Fahr Agrottron M640, which found a winning bidder at £43,000 and looked good value, having only amassed 1,312 hours.

A firm tractor favourite on Creaking Tree farm were a brace of Valtra 8550s. The slightly newer 2003 model, with 3,590 hours on the ticker, made £27,000, while the older mid-90s offering had 3,064 hours and made slightly less at £22,200.

The newest machine up for sale was a miniature Manitou MT625 loader, which was only registered in 2012 and had a barely-run-in 602 hours on the clock. It made a respectable £25,800.

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Pick of the implements was an Opico 525XE corn dryer, which made £11,600, and a Simba 4m X-press fell at £7,000.

JOURNAL : Farmers Weekly

Controlled by an app, a French technology company has built three highly accurate robots that are cultivating, drilling and caring for a 50ha crop of maize, completely autonomously.

The project – called Challenge Centeol – is taking place in Burgundy, headed by AgreenCulture, and bears some similarities to the Hands Free Hectare project, run by Harper Adams in the UK, which is now in its second year.

AgreenCulture's primary focus is to reduce soil footprint and care for the soil, while maintaining yields and reducing inputs.

See also: Video: Crop emerges in second year of Hands Free Hectare project

The three Centeol robots each weigh a tiny 300kg and have been created and built by the team at AgreenCulture, along with partners including machinery firm Kuhn, seed specialist Dupont Pioneer and technology engineering firm Ausy, among others.

The robots, which have Fendt-like bonnet styling, run from diesel engines and all sit on twin tracks, meaning ground pressure is kept to a minimum.

Workload

The project began in October 2017, when a specially adapted tool was attached to the robot, which took soil samples every five meters to help reduce inputs when drilling and fertilising.

Two robots then used a specially built strip cultivator so only the soil the seed would be planted in was moved. The robots were all fitted with their own RTK systems working to 10mm precision, from maps already in place or ones they produced themselves.

In April 2018, all three robots worked simultaneously in the same field. The first one dropped fertiliser in the cultivated strips and worked from soil analysis maps to add the correct amount for the varying soils, before its two siblings followed behind with drills.

Planting speeds of about 8kph has been achieved. However, because of the wet weather experienced in southern France this spring, the progress has been slow and the drilling is yet to be completed.

Future plans for the crop will be a dose of post-emergence nitrogen about a month after drilling, before three further inter-row weeding operations by two robots in the run-up to harvest.

The weeding takes the place of any further chemical control methods.

There are five different tools that attach to the tracked robots, which have a 24-hour autonomous run time, which means the only human-controlled job will be harvesting the crop later in the year.

JOURNAL : Farmers Weekly

Shoppers back British food, but even a small price rise will cause them to switch to imported alternatives, an AHDB survey has revealed.

The survey for the AHDB's latest Consumer Focus report looked at shopper sentiment towards "Brand Britain" and questioned whether there were any generational differences.

See also: Farming in grave danger from US trade deal, warns Ed Balls

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Almost 70% of shoppers wanted to see more British produce in stores, and three in four would buy more home-grown food if it was better value.

A total of 78% believed Britain needed to be more self-sufficient in food and not rely on imports so much.

Fickle shoppers

But the findings showed just a 10% increase in the cost of a home-grown product would cause one in three shoppers to abandon their principles and buy a cheaper import instead.

The revelation suggested that maintaining price competitiveness would be key for the UK agricultural sector in a post-Brexit world, the AHDB said.

"To-date there is little to suggest a wave of patriotism has helped bolster sales of all things British since the EU referendum and relying on 'Britishness' alone is not the answer," it warned.

Among the other key findings was a stronger commitment to British food from older shoppers who said they tried to buy British whenever they could.

Even so 74% of people over the age of 55 said increasing food prices were their biggest concern when it came to financial circumstances.

Therefore, any positive sentiment towards buying British will only count for so much as shoppers try to manage ever-tighter household budgets, the AHDB concluded.

Younger shoppers surveyed, were less likely to find "Britishness" compelling as a driver of purchase – highlighting the need for industry to look at how best to sell Brand Britain to this sector of society.

Quality and health

Younger generations were more likely to base their buying decisions on better quality, with health being a top priority. Convenience and time-saving were also important to this age group, the AHDB said

Report author AHDB retail insight manager Sukhvinder Gill suggested the focus on price was likely to intensify.

"The UK shopper is price conscious and increasingly so, given the current economic climate which is putting pressure on household budgets," Mr Gill said.

"Sentiment towards buying British remains fairly strong. But this is against a backdrop of almost four-fifths of shoppers in an IGD poll stating that rising living costs were of concern to them.

"With real incomes only recently returning to marginal growth, the focus on price and, indeed, quality is likely to intensify in the foreseeable future," he added.

Post-Brexit world

And the levy board's chief market development officer Christine Watts warned: "This evidence to-date serves only to highlight the uncertainty of what might happen in the future.

"In a post-Brexit world we can see that simply featuring the Union flag on products is not enough and so industry needs to demonstrate the other attributes they provide to meet consumer requirements around quality, provenance, supporting local farming and so forth."

Ms Watts added: "It is also clear from this report that price is a key purchase consideration and remaining competitive will be crucial for home producers and growers. The concern we all have in the industry is that if the price gap gets too big, consumers will simply look for cheaper alternatives from abroad."

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JOURNAL : Farmers Weekly

Throughout the 2018 show season, we'll be bringing you regional coverage of the UK's best-loved agricultural and countryside shows.

These events showcase the best of British farming and food, while also serving as a great social occasion and an opportunity for consumers and the public at large to learn more about the agriculture industry.

See also: Zwartbles and Dairy Shorthorn dazzle at Balmoral Show 2018

Balmoral Show

The brilliant Balmoral Show celebrated its 150th anniversary from 16-19 May at Balmoral Park, Lisburn, Northern Ireland. About 115,000 people attended the four-day spectacular.

Visitors were treated to plenty of sunshine, with temperatures hitting highs of 19C on the final day.

It was all too much for Monree Spot 3, who needed a power nap after winning the Saddleback class and claiming the interbreed reserve rosette for Diane Ruddock, Donaghcloney, County Armagh.

See also: A beginners guide to careers in agriculture

Dairy interbreed history was made when Ballytrain Bloom 30th became the first Dairy Shorthorn to win the championship.

Big names were out in force at this year's show. Bainbridge farmer and Ulster and Ireland rugby hooker Rory Best made an appearance, pictured here with Helen Davies of Shearwell Data.

Princess Anne and secretary of state for Northern Ireland Karen Bradley also came along.

Trueman genetics were to the fore in the beef ring, with both the interbreed champion Limousin and commercial champion reserve coming from Trueman sires.

With a bumper turnout of sheep entries this year, everyone wanted a look at the catalogue.

If you've got an agricultural show taking place in your area and think it should be covered by Farmers Weekly, let community editor Oli Hill know by emailing oli.hill@reedbusiness.com

JOURNAL : Farmers Weekly

Barley varieties that are tolerant to a key viral disease could help farmers reduce yield losses when growing barley without neonicotinoid seed treatments.

Two breeders are investigating barley varieties in the UK that can tolerate barley yellow dwarf virus (BYDV), which could reach farms in the next couple of years.

The disease, which is spread by aphids, can result in significant yield losses, especially with early infections leading to plant death.

See also: How a neonic ban will affect beet and cereal growers

Bird-cherry and grain aphids, which both spread the disease, can be successfully managed by the use of neonicotinoid seed treatments.

However, this autumn will be the last time farmers will be able to use them as the EU extends a ban on three neonicotinoid pesticides to cereals and sugar beet.

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While bird-cherry aphids are still well controlled by pyrethroid sprays, there are resistance problems in grain aphids.

Therefore, varietal tolerance could have a future role in barley, with varieties already being grown in France, where BYDV is a bigger problem.

Varietal tolerance is especially valuable when considering that later drilling, which can help reduce BYDV risk in wheat, is not an option for barley.

There are already tolerant varieties and Will Compson, sales and cereals manager at KWS, says the company is releasing Amistar commercially in Autumn 2019 on a limited basis with pilot growers.

So how does Amistar work? KWS barley breeder David Harrap explains that it contains a tolerance gene. This means plants will still get infected, but will tolerate the virus and grow normally.

"The YD2 gene has been around since the 1960s and was commercially available, but died a death as there was no interest," he says.

However, growing concerns over the future of neonicotinoid seed treatments have brought an acceleration of work to introduce BYDV tolerance, especially in the past two years.

Variety performance

John Miles, KWS product development manager, says that in trials Amistar has been impressive, giving similar yields to Tower.

The variety is in its second season of strip trials in higher BYDV risk areas from south Wales to East Sussex.

He highlights one trial in East Anglia where there was a 10-15% loss of yield in a standard variety because of natural infection. Amistar lost just 0.5% in the same area, in what he describes as a medium risk year.

Mr Harrap points out that you can still get leaf yellowing, but with no significant effect on yield.

However, Mr Miles says farmers may still need to manage aphids.

"You still get the virus circulating, as the gene does not break the lifecycle," he says. "Therefore, farmers may still need to manage aphids to reduce the risk of virus spread to neighbouring crops of wheat and barley."

Looking ahead, Mr Miles believes tolerant varieties will appeal to farmers on high risk sites such as the south coast. He suggests that for the first few years, they may be used as a tool on headlands, as aphids come in from the headlands.

It could also have a role in buffer zones around watercourses, so farmers can make more use of no-spray zones

Variety pipeline

There are more varieties in the KWS pipeline, including two-rows, and Mr Harrap believes there will be a substantial move to BYDV tolerance in coming years.

"It will be a trait that we will see more of in pretty much everyone's breeding programmes."

There is little risk of resistance developing in the aphid population, he says, so it will be around for some time.

Fellow breeder Limagrain is trialling a six-row with BYDV tolerance that is already being grown on the continent, from its Belgian breeding programme.

The variety, Rafaela, is vigorous and early to mature, making it an ideal entry to oilseed rape, says arable technical manager Ron Granger.

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Cereals product manager Les Daubney says that in trials last year, it performed as well as other six-rows, sitting at the bottom end of the hybrids.

The company is still testing its performance and it should be commercially available from next autumn, in time for when Deter is no longer available.

"Breeding efforts have accelerated and two-rows are about one or two years away from entering national list trials," he says.

JOURNAL : Farmers Weekly

Welsh farmers will only receive the Basic Payment Scheme (BPS) subsidy in its current form until 2019.

The Welsh government has announced what it terms as a "gradual and multi-year transition" from the existing BPS to new schemes.

See also: FW poll on how government should phase out direct payments

Cabinet secretary for rural affairs, Lesley Griffiths, insists she wants to avoid a New Zealand-style "cliff edge" removal of subsidies and has confirmed the transition period will run until 2025.

Farmers can rely on receiving two further direct payments from the current scheme – in 2018 and 2019 – but in 2020 a gradual five-year phasing in of the new structure will kick in.

BPS timetable at a glance

July 2018 Welsh government will announce preferred options for future subsidies

2018 and 2019 BPS payments to continue in current form

2020-25 Transition period to new payment structure

Ms Griffiths suggested the BPS was not the best tool for delivering support for food production and said future direct financial support would instead be given in return for "economic activities" and "public goods production".

What this actually means for farmers won't be known until July when the government announces its preferred options in a consultation document.

"There are clearly important links between the production of food and public goods so the support must be complementary," said Ms Griffiths.

"Many land managers will be able to produce both, but support for food production must not undermine our natural environment."

Farmer concerns

The proposed two-tiered support mechanism has caused some concern in the industry, with NFU Cymru calling for a single framework.

The union's president, John Davies, said food production and the delivery of environmental goods and services were not "mutually exclusive" and urged the government to carry out an economic impact assessment of every proposal being considered.

"Measures that support and incentivise productive agriculture can also positively impact on our environment," he said. "This is why we have advocated a single integrated policy framework with elements supporting productivity, the environment and financial stability."

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But Mr Davies approves of a long transition period until 2025. "This is crucial not just for farming businesses, but for the rural economy that relies on thriving farming businesses, and for our food processing sector who need guaranteed supply to ensure their plants can run efficiently," he said.

Funding

How the new arrangements will be funded is unclear because Westminster has not provided any detail or commitment to farm support beyond 2022.

Ms Griffiths was critical of this failure and has written a joint letter to Defra secretary Michael Gove seeking "urgent clarity".

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JOURNAL : Farmers Weekly

The battle among tenants to secure land and farms is fierce as supply remains thin in the rental market in England and Wales.

Seasonal and long-term lets are oversubscribed, with reports of strong rental values as a result.

The level of demand was exemplified last month when more than 50 application packs were requested for a small grassland farm in the north of England being let on a five-year farm business tenancy (FBT).

Similar scenarios are being seen elsewhere and the clamour for land is leading some tenants to agree to "unsustainable" rents.

See also: Farmland buyers search for non-agricultural income streams

The Tenant Farmers Association has warned applicants not to overstretch themselves.

Chief executive George Dunn said he was only aware of a handful of tenancies on offer this year. That included Norfolk County Council's four farms, which were launched in February and received 39 applications.

"I suspect that even if there had been only one unit available, it would have attracted around the same number of applicants," he said.

"Strong demand is a feature throughout the country. The fact that it is a slim market does tend to encourage individuals to bid levels of rent that are far in excess of what would be sustainable in terms of the finance of the business."

Craig Brough, associate director at H&H Land and Property, said average prices for seasonal grass lets have increased.

His firm has seen tough competition for longer-term opportunities too, evidenced by a five-year FBT on 135 acres of grass he let earlier this year amid strong interest.

"What is really significant is the level of applications from young farmers wanting to start up their first tenancy.

"With so many more applicants than there are farms or land to let, it is so important for those applying to rent a farm to ensure they make their business plan stand out among the crowded field.

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"To even make it as far as the interview stage you must spend time, take advice and present a well-prepared business plan that is sustainable and realistic."

Values and duration

Baileys and Partners director Ed Bailey said negotiations held over farm rents in Wales were not necessarily increasing, despite strong demand.

Landlords' agents, he said, argue that the market supports relatively high rentals for marginal land, while tenants say uncertainty surrounding future support mechanisms give reason to support static or falling rents.

"Such differences in opinion normally fuel intervention by third-party rental determination, but the market appears still to be opting instead to settle by reaching compromise," Mr Bailey said.

On tenancy duration, CAAV secretary and adviser Jeremy Moody said average lengths have risen in the past two years.

"I think there is a slight shift towards longer tenancies, which experience tells us is what happens during times of turbulence relating to support mechanisms," he said.

Removing seasonal agreements from the equation, Mr Moody said the average FBT duration is about six years.

On the market now

One of the few large estates currently offering a six-year FBT is the Beachborough Estate, north-west of Folkestone in Kent.

Tenders must be submitted by 1 June to BTF Partnership for the 743-acre farm, which has 441 acres of arable land and 302 acres of woodland.

Berrys has about 80 acres of land available to rent on a short-term grazing licence at Battlefield, Shrewsbury.

The mowing and grazing land is in one block with six enclosures, and has good road access off the A53.

Matthew Anwyl, managing partner of Berrys, says the long winter and forage shortage will heighten interest.

JOURNAL : Farmers Weekly

Nottinghamshire farmer Trevor Needham is successfully using beef cattle to improve the health of his hungry sandland soils, lifting cereal yields in the process.

Bringing grass leys into the rotation has resulted in valuable savings in fertiliser use over the 1,800ha that Mr Needham farms, producing high-value carrots as well as cereals, oilseed rape, sugar beet and permanent pasture.

Mr Needham, general farm manager for the Howard Farms business based at Little Morton Farm, near Retford, explains why having such healthy soils is important to the farm.

"Without good soil profiles, profits will be hard to achieve and being a sandland farm, we're very conscious of having damaged soil structures through irrigation and root cropping," he says.

The inclusion of cattle began in 2003 and by 2012, they became integral to the arable rotation. Now more than 1,400 cattle are deployed, including followers, fatteners and a suckler herd of 400.

Farm Facts

Area: 1,821ha

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Principal crop is carrots. Other crops grown are winter wheat, winter barley, spring barley, oilseed rape, sugar beet, rotational grass and permanent pasture

20 full-time employees

Fifth generation of Howard family now farming at Little Morton Farm

Home to 23 John Deere tractors

Where grass leys have been introduced into the arable rotations, there has been a significant rise in earthworm numbers and improvement in soil structure, especially from the second year onwards.

Why cattle?

Mr Needham says the whole farm is now in HLS (High Level Stewardship) environmental agreements and that cattle had seemed the most suitable option for improving soil health.

"We've looked at other options, but we don't feel sheep bring tremendous benefits, in terms of grass growth, as they tend to overgraze," he says.

"For small animals, they can do a tremendous amount of damage on a long-term pasture, whereas cattle are far gentler with the grass. We use short rotation paddock grazing so the grasses remain strong and robust. They just fit all systems that we want at the moment."

Rotations

The most profitable crop grown on the farm is carrots. Howard Farms is a major player in the UK carrot industry, focusing on the Chantenay brand.

It functions in a one-in-eight to one-in-ten-year rotation, depending on rental and stewardship requirements.

In between carrot crops, the focus is on putting nutrition and structure back into the soil, allowing it more time to recover, to give the next crop of carrots a stronger chance of producing profitable yields.

"Normally we're working on a three- to four-year grass ley period and we're pretty confident that will sort out any grassweed problems," he says. "Ideally, we'll tend to grow two straw crops, prior to the carrots," he says.

Advantages

Mr Needham says he believes cereal yield have probably risen by up to 2.5t/ha since cattle arrived on the farm. He also highlights further benefits of using less bagged fertiliser and utilising organic manure produced by the cattle.

Pros

Soil health improvement

Ability to stretch the rotation

Utilises labour better during winter, as staff are given stock duties (feeding, fencing etc)

Cons

When they get out of fields!

Often receive noise and smell complaints from public and there's also a danger of animals escaping on to fast moving roads

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Through HLS, the requirements mean you can't always do the things you want to, to move the business forward

The cattle create 500-600t of manure each year, with a further 1,000t of pig manure bought in annually. Being able to spread it across the land has helped to make the soils more resilient, and has reduced the use of inorganic fertilisers.

Previously, sugar beet grown on the light land at Little Morton would suffer from a drought period in August, but since applying manure in front of crops, droughts have been avoided as the manure helps the soil retain moisture.

Mr Needham admits that one of the biggest problems with organic manure is the transport cost and that application is not as even across fields, compared with a fertiliser spreader.

Setting-up costs

Cost is a key factor that will put many growers off the idea of introducing livestock on to their land, with funds needed for items such as fencing, feeding and supplying water to each field.

Mr Needham says the HLS schemes helped with the set-up costs, providing subsidies towards all the water pipes, troughs and fencing, although he highlights that enterprises need to stand on their own feet and not rely on subsidies.

He has been able to introduce catch crops, based on cereal/legume mixes, to provide a late autumn bite for the cattle and keep growing plants to help improve soil structure rather than leaving bare stubble.

Mike Green, environmental stewardship manager for the agrochemicals giant BASF, believes the Howards Farm business has been successful in introducing cattle and sees environmental schemes, such as HLS, as important to farmers.

"Trevor has looked at the primary crop, carrots, and the barriers for making it more successful, realising that both the fertility and structure of soils needed improving. They've decided to bring in cattle and I think they've done a pretty good job," he says.

"It's important not to enter them solely for the extra money and subsidies, but instead focus on the long-term effects to your business and how a new enterprise will fit in to your current farming strategy," Mr Green says.

JOURNAL : Farmers Weekly

Sustained demand for UK beef, combined with a reduction in prime cattle throughputs, have firmed prices further.

There was a 3% drop in prime cattle slaughterings to 31,600 head for the week ending 15 June compared with the previous week. The figure is also down by 2% on the same week a year ago.

See also: Tight supplies predicted to preserve Scots meat prices

Allied to reasonable demand, the GB all-prime average price strengthened by a further 1.33p/kg compared with prices a week earlier, to average 370.26p/kg, said AHDB Beef and Lamb.

The main driver for the price rise and fall-off in throughput were steers, which saw slaughterings decline by 6% week-on-week and R4L specification average prices rise by more than 4p to average 384.5p/kg.

The latest increase means cattle prices have risen by 16p/kg in the past four months.

However, the AHDB said values had started to narrow year-on-year against the strong uplift seen in summer 2017 and could come under more pressure as throughput recovered with grass-finished cattle coming on stream.

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In contrast to steers, R4L heifers slipped by 1p to 381.3p/kg, and R3 young bulls fell by less than a penny to stand at 365.9p/kg.

However, the market for cows has remained robust this week, bolstered by demand for manufacturing-type beef and the continuing overall high for prime cattle.

Despite a throughput rise of 700 head to 10,100 for the week, the overall average cow price rose by 3p to average 267.2p/kg.

The demand for manufacturing beef has also driven a rise in imports over the first four months of 2018 compared with the same period in 2017. Total imports of fresh/frozen beef reached 91,000t, up 6% on January to the end of April 2017.

Imports from France in the first four months of 2018 showed the largest proportional rise at 88% against year-earlier statistics, to total 1,200t. The vast majority of imported beef (70%) came from Ireland and this also rose by 6.5% to 65,000t in the first four months of 2018.

However, while the UK imported more beef from certain countries up to the end of April, the period also saw a rise in exports of home-grown product against those four months in 2017.

AHDB analyst Tom Forshaw said fresh/frozen beef exports up to 30 April totalled 38,700t (+17%).

"Ireland was the biggest export destination for the UK, commanding over 30% of the market share of exports," Mr Forshaw said.

In the first four months of 2018, UK total fresh/frozen beef exports to the republic totalled 13,500t (+33%).

"The reason for the uplift was cattle supplies in Ireland have tightened, which could support demand for UK beef," Mr Forshaw forecast.

The value of total UK fresh/frozen beef exports also increased, to total £144m (+21%) in the first four months of 2018.

JOURNAL : Farmers Weekly

Understanding the financial and physical performance of your business is vital to make accurate management decisions and maximise profitability.

Benchmarking for the first time can be daunting given the array of information available, but Sentry's rural business advisor Alec Smith says even relatively simple measures will reveal worthwhile information that may prompt more detailed analysis.

"Don't get hung up on detail or worry about getting everything 100% right straight away. The important thing is to start somewhere and work up from there," he says.

Benchmarking tips

Keep it simple to start

Be honest and open to advice

Apportion costs correctly

Look at results over several years

Compare your results with others

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Mr Smith highlights six key areas for arable farmers to focus on:

1. Seed, fertiliser and sprays

A traditional measure of variable costs on arable farms, this is a good way of checking expenditure on the main crop inputs is not too high.

Figures are generally easy to collate and costs can be calculated on an area basis (as below) or a tonne by dividing costs by average yield.

“Our costs were lower than many in 2017, which is mainly due to our buying strategy rather than using less. Benchmarking isn’t just about saving costs, but ensuring costs are proportional to output,” says Mr Smith.

See also: Key cross compliance and greening dates by region

Comparing costs on a field-by-field basis also helps evaluate whether poorer areas are costing too much for that level of output and whether it may be better to put another crop to use, such as environmental stewardship.

2. Fungicide cost/tonne

Another way of checking key input costs are in balance with output is to calculate total fungicide spend on a tonnage basis.

The average across Sentry’s wheat area last year was £11.40/t, but the top 25% spent £9.60/t.

Breaking information down to a block of land or individual field basis helps identify whether expenditure is proportional to yield.

“Some farms use the same fungicide strategy across one crop, but ideally it should be tailored to yield potential,” says Mr Smith.

3. Labour and machinery costs/hectare

Labour and machinery costs can be the hardest to tackle, but must not be overlooked.

All aspects should be included, which for labour includes the cost of full/part-time staff, and a value for any family labour.

Machinery costs depend on the farming system, but typically include spares and repairs, fuel, depreciation, hire charges, service agreements, tax and insurance.

Average labour costs on Sentry farms in 2017 were £140-145/ha, with the top quartile nearer £110/ha.

Average machinery costs were £250/ha (see chart), down to £220/ha for the top performers.

4. Enterprising

For accurate benchmarking data, costs should be attributed to the appropriate enterprise to ensure nothing is missed or overestimated.

For example, if machinery or labour is used across arable and livestock enterprises, a representative proportion of that item’s total cost should be assigned to each enterprise.

Or, if contract **harvesting** 200ha alongside 200ha of your own land, only half of the combine costs would be attributed to the farm’s land, with the remainder against the contracting.

5. Look for data trends

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Given the seasonality of farming, it is dangerous to base assumptions or decisions on just one year's data.

Equally, it can be easy to make excuses for poor performance in a single season, so several years of data – at least three, preferably more – are needed before underlying trends can be seen and acted upon.

6. Input balance

One measure Sentry uses to compare its farms is to rank total variable costs and output with an 'input balance' percentage.

Costs are calculated for every farm on a per hectare basis, then each one is ranked from 0 to 100, with 0 representing the highest cost and 100 the lowest.

Output (yield x price) is also ranked, with 0 representing the lowest and 100 the highest.

Adding the two figures together should total close to 100% if expenditure and output are in balance (ie, high input, high output or vice versa).

A low figure indicates a potential problem - eg, costs are too high or output too low for that level of spend.

Benchmarking at Sentry

Sentry covers 16,300ha of arable land and has been benchmarking since 1988.

The company now uses the AHDB Farmbench service to collate data before analysing its own results, comparing them across Sentry farms and with the rest of the industry.

Farmbench is an online benchmarking system that allows farmers to enter whole-farm or enterprise-specific business data that can then be compared against others through aggregated and anonymised results.

It uses three broad performance indicators: financial information (eg, sales, costs and margins), technical data such as fertiliser use, and production data (eg, crop yields). Criteria can be on an area or tonnage basis.

Results are fed back to growers through discussion groups or individual reports.

Sentry average costs, harvest 2017 (£/ha)

Seed (inc home-saved)

Fertiliser

Sprays

Winter wheat

67.60

169.30

242.30

Spring barley

74.10

133.50

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142.40

Winter oilseed rape

76.00

188.00

207.80

JOURNAL : Farmers Weekly

The financial benefits of no-tillage farming are set to be outlined by agricultural accountant Gary Markham later this month. They will show that clear savings can be made in agrochemicals, fuel and working capital.

Using the results from some 12 arable no-tillage farms in East Anglia, he has recorded the financial results from their no-till approach compared with conventional farming from the 2017 **harvest**.

He will be presenting his findings at the second day of the Groundswell event in Hertfordshire in late June, and give his views on whether no-tillage is financially viable.

See also: Farm's self-imposed insecticide ban leads to healthier crops

Mr Markham has been benchmarking this group of 12, who have been practising no-tillage crop establishment for several years, and comparing them with the 40,000ha of conventionally farmed land which he manages financially.

Variable costs

Big savings in agrochemicals from a no-tillage approach helped bring variable costs down sharply for the group of 12, with the major cost savings coming from a lower spend on herbicides compared with conventional establishment techniques.

Fixed costs were clearly lower, with machinery capital per hectare showing a large reduction due to using a one-pass direct drilling compared to minimal tillage or ploughing methods, with some showing savings of as much as one-third.

Less machinery use led directly to big reductions in fuel used, with the diesel costs of the no-tillage farms showing savings of nearly 50%.

No financial account was taken of the increase in soil health and other environmental benefits which may have come from using no-tillage farming.

Annual event

The hosts for the third year of this annual event will be brothers John and Paul Cherry, who run a 1,000ha farm in north-east Hertfordshire, just south of Baldock.

The farm gave up ploughing in favour of minimal tillage in the year 2000, prompted by the desire to save on diesel, metal fatigue and time, and then just over a decade later took the plunge and went fully no-tillage.

They saw their chalky boulder clay soils were more workable and earthworm numbers and soil organic matter increased. They also stopped using insecticides three years ago and increased cattle numbers and expanded their herbal leys.

This all chimes with Michael Gove's enthusiasm for no-tillage techniques and promoting the "public good" that these methods can bring in terms of more sustainable healthy soils, according to the Defra secretary.

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Gary Markham is director farms and estates for Land Family Business

Groundswell 2018

The two-day event is focused on no-tillage techniques, soil regeneration and the value of livestock in arable and mixed farming systems. It features high-profile speakers and field-scale direct drilling demonstrations. The third annual event will be held on 27-28 June 2018 at John and Paul Cherry's Lannock Manor Farm, Weston, Hitchin, Hertfordshire SG4 7EE.

JOURNAL : Farmers Weekly

The number of anaerobic digesters in the UK is being forecast to rise by up to 13% as the guaranteed price paid for energy generation is set to increase to its highest level since 2016.

Legislation set to make its way through Parliament on 22 May will pave the way for the restoration of tariffs of up to 5.6p for each kilowatt hour of renewable heat generated.

This is an increase of 2.3p on the current renewable heat tariff price for biomethane injection-type digesters that produce a flammable gas from breaking down organic wastes such as slurry or purpose-grown energy crops.

See also: Grants available for farm energy storage and distribution

The gas is then burned to produce renewable heat or to generate electricity, with nutrient-rich fertiliser also generated as a by-product.

There are currently 308 operational agricultural anaerobic digesters in the UK, and the Anaerobic Digestion and Bioresources Association (Adba) is forecasting the price rise could tempt as many as 40 more units online in the next two years.

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New plants that are eligible for the increased price will then be able to lock in that tariff level for 20 years.

The price rise has been on the agenda since early 2016, but the snap general election called by Theresa May severely delayed the passage of the law change required.

Charlotte Morton, chief executive of Adba, said: "AD is already reducing gas imports by 2% and has the potential to reduce them by as much as 16%.

"With emissions from heat accounting for one-third of all UK greenhouse gas emissions and no clear government strategy yet identified for decarbonising heat, it's imperative that the government commits to long-term support for green gas beyond 2020."

JOURNAL : Farmers Weekly

Weather conditions during **harvest** in the Scottish Borders are increasingly unpredictable – the only certainty being that virtually every tonne of grain will need to pass through a dryer. And that's a costly process.

But more and more growers across the north of the UK are looking at ways of trimming those costs with all sorts of novel solutions using the latest state-of-the-art tech, common-sense and a bit of initiative.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

With a wind turbine and two biomass boilers on their farms in the Scottish Borders, the Hodge family is familiar with renewable energy and the potential revenue it can generate.

But bringing in income through subsidies is only one side of the story – the bigger long-term opportunity lies in the savings to be made on energy bills, says Andrew Hodge.

See also: How to renovate a Master batch grain dryer

Farm Facts

Firm of Thomas Hodge, Rulesmains, Duns, Scottish Borders

Farmed area: 648ha

Cropping: Winter wheat 170ha, spring barley 120ha, winter oats 73ha, winter barley 73ha, oilseed rape 60ha, spring beans 16ha, rotational grass leys 101ha, permanent pasture 65ha

Stock: 100 Angus suckler cows, 60 Simmental X suckler cows, plus 350 followers and bought-in store cattle

Soil: Light sandy loams and areas of heavier clay loam

Machinery:

Tractors – JD 7930, 7820, 6155-R, 6930, 6810, 6610 and 6430

Loader – JCB 535-60

Combine – Claas Lexion 750 with 6.7m (22ft) header

Sprayer – 2500-litre Kelland Agribuggy with 24m booms

Baler – McHale F660

Drier – 20t Opico Magna with biomass burner

Renewables: 15kW wind turbine, 90kW and 70kW biomass boilers

Staff: Andrew, Jill and Emma Hodge plus one other full-time and two part-timers at busy times

“Four years ago we installed a 90kW biomass burner here on the home farm to provide heat for the main farmhouse, office, workshop and bungalow,” he explains.

“At around £65,000 for the whole installation, it was a big chunk of cash to lay out, but we could see the savings we’d be making on our fuel bills and the income we’d be getting from the RHIs, so we took the long view and bit the bullet.

“There was only one problem: the system would only be working at capacity for about six or seven months of the year. When things warm up through the summer we don’t need the heat in the buildings.”

However, on the farm there was another big user of heat energy when everything else was running cool – the grain dryer.

Switching from gas

At the time, the Hodges were using a gas-fired 12t Opico GT dryer, but with more arable acres it was struggling to match the capacity of the farm’s larger Claas Lexion 650 combine and it was due for a change.

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Having had decent reliability from the Opico dryer and good back-up from local dealer John Thorburn just a couple of miles away, Mr Hodge was keen to stick with what he knew and ordered a 20t Opico Magna. A diesel-burner, it offered the flexibility for the next trick up Mr Hodge's sleeve.

"I had a plan to site the new dryer in the building next to the biomass burner and rig up some sort of heat exchanger to warm the air going in.

"We had used Renew Green Energy from Galashiels to install a second woodchip boiler to heat the three houses at our other farm and they really knew their stuff, so we got them to design a system for the dryer."

In simple terms, what is effectively a massive radiator is positioned just outside the grain drier shed.

Hot water from the system's buffer tanks flows through it with electronic valves used to redirect the flow from the buildings' circuit into the heat exchanger.

Connected by steel ducting to the intake, the dryer fan draws ambient air in through the radiator fins, bringing it up to about 50-55C, so the diesel burner is required to kick in much less often.

Keeping things simple

The beauty of the set-up is that the dryer itself is virtually unmodified. The computer controller prompts the burner to kick in on high flame as required and then to throttle back to low flame as it normally would (the only link between the dryer and boiler being a signal to shut off the water pump when the burner cuts out).

The key difference is that the burner now spends much more time on its low setting, with the biomass boiler providing the lion's share of the background heat.

"With the dryer spending more of its time on low flame, we're seeing a 20-30% saving on our diesel bill.

"With our quantity of grain to dry – about 3,000t/year – that's well worth having. Together with the RHI payments it generates, that makes the £8,000 we spent on the set-up easy to justify."

The only downside is that the dryer cooling cycle now takes longer than before because the intake air is still drawn through the heat exchanger for that phase of the operation.

Although water is not pumped through the radiator when the dryer goes into cool down mode, it takes a while for all the heat to dissipate out of the core. In reality it's no problem – the burners just need to be shut down 10 minutes earlier than before.

Despite that, throughputs are pretty impressive – drawing out 6% moisture, the 20t Magna will deal with five batches in a 24-hour period.

What about the feedstock?

For the last three seasons the business has bought in timber from a local woodland management company, stacking it up to dry for a year before having it chipped by a specialist contractor.

However, last winter the Hodges had some of the 60ha of woodland at Rulesmains Farm thinned out and now have a 10-year felling and replanting plan in place to provide a long-term supply of feedstock for the two biomass burners.

Each one has a large reception hopper capable of holding 8-9t of woodchip. Once dry it's not dense at all – the load in a 14t grain trailer only weighs around 4t.

With the bigger boiler at the home farm running flat out, one hopper load will generally last three to four weeks.

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Self-feeding, the burner chamber is stocked by a sweeper auger in the bottom of the bin that helps to avoid any issues with the material bridging and blocking.

"With our woodland and wind here in the Borders it makes sense to make use of the natural resources we have at our disposal," says Mr Hodges.

"We had the biomass boiler sitting there doing very little through the summertime, so it made sense to make a relatively small investment to get it working for us drying grain.

"The next step is to look at ways of getting the other burner at our other farm paying its way year-round. Without grain storage on site, we're thinking of converting a silage trailer with a mesh floor to dry woodchip."

JOURNAL : Farmers Weekly

A teenager has been diagnosed with the 18th century disease, cowpox after feeding cattle on a farm on the Wrexham-Cheshire border.

The unnamed 15-year old contracted the believed-to-be extinct disease when he was bitten by a calf he had been feeding, grazing his skin.

See also: Buyers guide: 6 options for calf housing compared

He developed pus-filled lesions on his hands, arms and feet before receiving treatment at the Countess of Chester Hospital where he was diagnosed with the rare disease.

This is a very rare occurrence according to the Endell Vet Group's Keith Cutler, who says he hasn't seen a case of cowpox in almost a quarter of a century.

Tips on how to handle a cowpox

The risk of getting cowpox remains very low, however, as a precaution it is best to:

Avoid contact with animals with suspected or confirmed cowpox, especially so if you have a suppressed immune system

Wear gloves and observe strict hygiene precautions when handling any affected animals

Avoid being in contact with cats and rodents on farms if possible

If you suspect you may have cowpox, go to your GP and explain carefully the likely nature of exposure (for example, you work on a farm with livestock)

Source: Public Health Wales

"It's strange to hear about cowpox at all, let alone in a calf," says Mr Cutler.

"The disease used to be occasionally seen in dairy cows where roughly circular scabby lesions would appear on teats which would become reddened and inflamed before scabbing over and becoming brown and crusty."

However, Mr Cutler says improved parlour hygiene and udder cleanliness had all but eradicated the pox virus decades ago.

Hygiene reminder

"There's no need to be overdramatic about this but now is a useful time to remind dairy farmers about the importance of maintaining high parlour hygiene standards.

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"Farmers should always wear the right personal protective equipment such as waterproof trousers and always wash hands before eating or touching your mouth," he adds.

The incident, which the boy fully recovered from after six weeks, occurred three months ago, but only recently came to light after the boy's doctor alerted colleagues at a recent medical convention.

What happened to cowpox?

Cowpox was prevalent in milkmaids in the 18th century, who would catch the disease from the infected teats of dairy cows.

The introduction of industrialised farming methods saw an end to hand milking, effectively eradicating the cowpox in Europe.

However, the disease does have a presence in the UK, carried by rodents and stray cats and is most prevalent at the end of the summer and early autumn.

In 1796, English doctor Edward Jenner recognised dairy farmers and milkmaids had developed an immunity to the much deadlier smallpox virus, which killed one in five carriers.

Dr Jenner developed a smallpox vaccine from the fluid of a milkmaid's infected cowpox lesion, in the process creating modern-day vaccinations.

JOURNAL : Farmers Weekly

Suffolk grower Andrew Colchester has taken a big step towards banishing blackgrass on his farm by radically changing his cultivation strategy and beefing up his herbicide programme.

He had seen the pernicious grassweed take a firm hold on his farm during the past decade, hitting his yields. He realised a dramatic change was needed last autumn.

On one trial field he abandoned his plough, delayed his winter wheat drilling and used a comprehensive herbicide spray policy and now he is hard-pressed to find any blackgrass this spring.

"We can't just rely on chemicals, as we have tried this over the past 10 years and it does not work," he tells Farmers Weekly.

New approach

Therefore, he gave his usual plough and power harrow approach a break this season for his chosen 7ha field and went for a light cultivation, drilled it with winter wheat on 16 October and held his breath.

See also: Autumn wheat drilling delayed to battle blackgrass

In hindsight, it was probably the worst season to try a new approach, as his late drilling was followed by one of the wettest winters on record. This stressed his wheat plants, but now, well into a warm spring, they have recovered.

"I am looking for blackgrass, but I can't see any and I am more confident that I am not going to see it this season," he says.

Mr Colchester farms 75ha at Church Farm, Thrandeston, north Suffolk, two miles south of Diss, on sandy clay loams that can run to heavier land, where the blackgrass flourishes.

Establishing cereals

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He is a third-generation farmer, taking over the land from his father in 1991, and his traditional approach to establish winter cereals is a plough-press followed by a power harrow-drill combination, with everything in the ground before his birthday on 28 September.

But as he contemplated spraying off some of his winter wheat last summer because of a heavy blackgrass infestation, he knew he had to change, and change quickly.

So with the help of Hugo Pryce, local agronomy manager at agrochemical giant BASF, he decided to take radical steps on his chosen field, as part of the group's trial arable weed control programme.

The wet weather at **harvest** 2017 meant the combining of the previous spring barley crop and the baling and carting of straw had left the field badly damaged by machinery.

Low soil disturbance

So a disc-tine-roller low-soil-disturbance cultivator was used to level the field on 9 September. The stubble was left to green up and then sprayed off with glyphosate three to four days before drilling with a low-soil-disturbance disc drill.

A comprehensive herbicide programme, costing up to £80/ha, was used on the trial field, including pre-emergence chemistry aimed at controlling blackgrass.

One expert brought in to advise on this arable weed control trial was independent soils and cultivations specialist Philip Wright.

His first comment was that there was too much ploughing on the farm, as the key to improving soil structure and also controlling blackgrass was low-disturbance operations.

Use of plough

He advises to plough only once in every four to five years, because if the plough is used every year, growers are resetting their soil structure each year and bringing up buried blackgrass seed.

The Sumo disc-tine-roller cultivator operated at a depth of 175-200mm, and was ideal to loosen the ground, but not bring blackgrass seed to the surface. The Weaving disc drill worked well due to its low-soil-disturbance characteristics.

If another winter cereal is planned after the wheat, Mr Wright advises following the same route as before, and the first cultivation can even be omitted if the **harvest** is dry and the stubble is in good condition.

"This has been encouraging for soil structure and encouraging for grassweed control, so it is a win-win situation," says Mr Wright.

Church Farm, Thrandeston

Previous cropping

Spring barley

Drilling date

16 October 2017

Variety

Shabras

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Seed rate

190kg/ha

Herbicides

Pre-drilling: 2.5 litres/ha glyphosate 360 + Companion Gold (drift retardent)

Post-drilling: 15kg/ha Avadex (tri-alleate)

Peri-emergence: 4.0 litres/ha Trooper (flufenacet + pendimethalin) + 0.2 litres/ha Hurricane (diflufenican). Delivering 240g of flufenacet, 1,200g pendimethalin, and 100g diflufenican/ha

Usual farm standard is 2 litres/ha Trooper + 0.3 litre/ha Herold (flufenacet + diflufenican) delivering 240g flufenacet + 600g pendimethalin and 60g diflufenican/ha.

Herbicide treatments

BASF's Hugo Pryce says the combination of this low-soil-disturbance machinery and delayed drilling works well with a comprehensive herbicide treatments including tri-alleate, flufenacet, diflufenican and pendimethalin.

"With moist seed-beds in the autumn, the herbicides worked well and there was no blackgrass seen in November," he says.

Mr Pryce had looked to put on an additional 120g/ha of flufenacet in the late autumn, but this was found to be unnecessary due to the lack of blackgrass.

In the early spring, the crop was inspected to see if a contact graminicide was needed, and despite the odd blackgrass plant being found, it was decided that it was not economic to treat.

Ruth Stanley, herbicide specialist with BASF, says early grassweed control is essential to get on top of troublesome blackgrass.

"The best time to kill a weed is pre-emergence, so I would use the best products then," she says.

Rotation

Mr Colchester's rotation is based on one or two winter wheats followed by a break crop, which can be sugar beet, potatoes or oilseed rape and then into spring barley.

Sugar beet was introduced into the rotation in the past two years and the intention is to grow less oilseed rape or drop it entirely and grow more sugar beet.

Blackgrass is beginning to spread across the farm and is becoming more difficult to control.

JOURNAL : Farmers Weekly

No one enjoys the faff of getting a padlock unlocked in subzero temperatures, usually you'll have to take your gloves off to find the keys in your pocket and then give the padlock a cuddle to thaw the key slot.

An addition to your security armour is a Bluetooth padlock, from Masterlock, which claims to solve these issues by using a simple app to unlock the padlock.

See also: Ultimate guide to farm security kit

The key-free lock can be opened from the comfort of your car by a simple swipe up on the touchscreen device, meaning you can send someone else out in the cold to push the gate open.

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There's also the option to grant others access with a one-time code that expires after four hours, with each padlock costing £89.99.

JOURNAL : Farmers Weekly

Since estate manager Toby Hogsbjerg made the radical decision to completely switch to Clearfield oilseed rape varieties, the estate's rapeseed crops have yielded almost 1t/ha more.

A serious charlock problem meant yields across Swinbrook Farms in the Cotswolds, Oxfordshire, had dropped to just 2.5t/ha from the 200ha of oilseed rape grown each season.

Clearfield hybrid rapeseed varieties, which are tolerant of the herbicide active imazamox, were the only viable option for continuing with rapeseed on the two estates that make up Swinbrook Farms, but Mr Hogsbjerg was initially sceptical of the technology.

See also: Novel herbicide to cut the risk of growing oilseed rape

He was also wary of increasing the complexity of the spraying regime at the farm by growing both herbicide-resistant rapeseed and normal varieties with differing needs.

To minimise the complexity, all of the rapeseed cropping area at the 440ha Wilcote Estate, one of the two estates that make up Swinbrook Farms, was planted with a Clearfield variety three seasons ago.

Actives

Vulcan – acetamiprid

Centurion max – clethodim

Cleranda - imazamox + metazachlor

Cleravo - imazamox + quinmerac

Astrokerb - aminopyralid and propyzamide

Benefits

The benefit of being able to hit broad-leaved brassica weeds such as charlock, runch and hedge-mustard became apparent in just one season.

Without the competition from the weeds, crops at Wilcote yielded 0.5t/ha more than at the 560ha Swinbrook Estate.

The following season the weed problem reached a critical point at this second estate, when half a field of rapeseed had to be mowed out to get on top of the charlock problem.

Last season was the first growing 100% Clearfield across the whole farm, and the results are encouraging - Swinbrook achieved 3.4t/ha, while Wilcote managed 3.6t/ha.

While last year's crop has yet to be sold in a pool, Mr Hogsbjerg expects to achieve an average gross margin of £470/ha, based on a price of £320/t.

With Clearfield varieties delivering lower yields than those on the Recommended List, and being fairly expensive to grow, many farmers choose to limit their use to the fields with the biggest weed problem.

But the severity of the weed problem at Swinbrook means it is actually more profitable to grow 100% Clearfield varieties.

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Mr Hogsbjerg admits these yields aren't great, but are a huge improvement on the 2.5t/ha the farm was achieving five or six years ago when crops were failing due to charlock.

"Rape yields improve year-on-year. They are still not where they should be, but we have no charlock and crops are establishing."

Without the competition, crops are better developed, as they are intercepting more light. This season he is expecting to yield about 4t/ha.

Along with the weeds, Clearfield herbicides are also clearing up rapeseed volunteers, which is in turn bringing down the erucic acid levels of the crop, which have been a problem in the past.

Previous approach

A close rotation of rapeseed of just one in two, or one in three, combined with mild winters lacking the necessary frosts to kill off weeds, allowed the charlock and runch situation to get out of control.

In the past Mr Hogsbjerg always grew DeKalb varieties, using bifenox under an extension of authorisation for minor use to hit the charlock.

But while chemical control works well with a good frost, the resilience of mature charlock means it needs two doses to kill it, and if the weather turned, the second dose was often missed.

This allowed the charlock to go to seed and means that in many of the fields, the charlock situation is such that Mr Hogsbjerg could not rely on frosts to clear up.

Current crop

This season the oilseed rape drilling was completed by 28 August. It was min-tilled as shallow as possible into wheat stubble to also incorporate sewage sludge using a Horsch Sprinter fitted with 5in Dutch openers.

It was rolled once or twice depending on conditions, and a pre-emergence spray missed unless there was a major issue with weeds.

The crop then received a standard post-emergence of Vulcan or Centurion Max for grassweed control.

Mr Hogsbjerg uses two of the post-emergence Clearfield herbicides available - Cleranda and Cleravo – to tackle a range of broad-leaved weeds and grassweeds, and also take out rapeseed volunteers.

These tend not to need to be followed with Astrokerb unless there is a major issue with poppies.

This herbicide programme is achieving 95% control of weeds, he says, and a complete rotation round both estates should ultimately solve the weed problem.

Rotation change

Alongside moving to herbicide-resistant varieties, in the past three years the rotation has been broadened as the farm tries to find other crops that will be profitable.

At the Swinbrook Estate the rotation now consists of wheat, barley, rapeseed, wheat, and then spring wheat or beans. Wheat, rapeseed, wheat and spring beans are grown at Wilcote.

Although yields are increasing and weeds are being eradicated, the switch to Clearfield varieties has not been entirely plain sailing.

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Last season Mr Hogsbjerg grew Clearfield Imperial at Wilcote and Veritas at Swinbrook. While Veritas was meant to have the highest potential of the two, the crop was disappointing, at it was slow to get growing in the spring.

This year he has switched to Impersario at Wilcote and Imperial at Swinbrook.

As a result of the disappointing crop, Mr Hogsbjerg is conducting a field-scale on-farm trial of Clearfield varieties in order to select the ones that will give the highest yields.

He is looking for vigour in autumn and spring and the earliest harvest, and says that while Clearfield varieties weren't great in the past, they have been improved.

Six Clearfield varieties are being trialled in hectare plots – Imperial, Phoenix, Pleurax, Veritas and two unnamed pioneer varieties.

Of the six trials, Pleurax has the earliest vigour and is the most likely variety to be sown next year.

JOURNAL : Farmers Weekly

Wales has seen a 13% rise in new herd incidents of bovine TB despite a raft of new disease controls.

In the 12 months to March 2018, figures release by Defra show there were 785 new herd incidents compared with 696 in the previous year.

The sharpest rise was in Clwyd – an area classified as Intermediate (North) within the Welsh government's new TB zones – where there were 64 new herd incidents compared with 45 over the previous 12-month period, a rise of 42% for that area.

See also: Defra to extend badger cull to low-risk area

Farmers in the region, including milk producer Dei Davies (pictured), are concerned by that big increase.

He has never had a case of TB and suggests that more must be done to protect herds. "It is very worrying that it seems to be getting closer. Not enough is being done to address the issue in wildlife," said Mr Davies, of Moor Farm, Flintshire.

"We are clear and don't want to do anything to upset the eco balance of that, but in areas where that is not the case more needs to be done. The wildlife controls seems to be working in England.

"Badgers are the disease carrier that people worry about, but there has been an outbreak of TB around Denbigh where there are a lot of wild deer, which is worrying."

Rising incidents

All regions of Wales have experienced a rise in new herd incidents, apart from upland mid-Wales where the number was static at 64.

Farmers have also lost more animals from their herds. The number slaughtered in the 12 months to March 2018 was 10,226, an increase of 3%.

In total, 5.7% of registered herds were under TB restriction during that period, up from 5.1%.

The issue was raised in the Senedd on Wednesday (13 June) by AM Nick Ramsay whose Monmouth constituency, which falls in the High East TB region, experienced a 23% rise in new cases.

He too wants to see more done to control TB in wildlife.

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"It's one thing to deal with the rates of infection within livestock – that's got to be done – but also within the wider wildlife reservoir and in the wider environment, as well," he said.

In October 2017, the government introduced new measures for tackling TB, including more cattle testing and tougher rules around moving and selling cattle for farmers in high-risk areas, such as Pembrokeshire, Carmarthenshire and along the border with England.

The government urged caution regarding the latest figures.

"It is important to take caution when observing short-term trends in TB statistics and we need to allow time for any impacts to take effect before we draw any meaningful conclusions," a spokesperson said.

New bovine TB herd incidents

12 months to end March 2017

12 months to end March 2018

Year-on-year change

Wales

696

785

13%

England

3,858

3,683

-5%

Scotland

36

39

8%

JOURNAL : Farmers Weekly

The new Agriculture Bill setting out the policy framework for supporting UK agriculture post Brexit is due to be published next month and is unlikely to include any plan to cap payments to larger farmers.

The surprise announcement was made by Defra secretary Michael Gove, giving evidence to the cross-party Environment, Food and Rural Affairs (Efra) committee in Westminster on Wednesday (13 June).

See also: Cereals campaign aims to put arable farming top of political agenda

It had previously been suggested the bill would not see the light of day until the autumn, leaving little time for proper scrutiny before the UK leaves the European Union in March 2019

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But Mr Gove told the Efra committee the aim was now to publish the bill “before the summer recess” and civil servants were scrutinising the 44,000 responses to the Health and Harmony consultation to decide what it should contain.

Capping to be lifted

Asked by committee chairman Neil Parish whether these responses were having any effect, Mr Gove revealed he was already reconsidering capping as a result.

“Right at the very beginning, I’d argued that one of the inherent unfairnesses in the BPS system was that it allocated money on the basis of size of agricultural holding to people who were already very wealthy,” he said. “I thought the right thing to do was to have some form of cap.

“But one of the things that has come through very strongly in the evidence from people across farming is that they would prefer there to be the same percentage reduction for all farmers who are in receipt of BPS. A strong argument has been made and we are discussing it with officials in the department.”

Conservative MP Julian Sturdy suggested a straight cut for all farmers would have a bigger effect on smaller-scale farmers, who are much more reliant on subsidies than larger-scale farmers, especially tenants.

But Mr Gove stressed that, while no definitive decision had yet been made, the message about capping was coming from both large- and small-scale farmers.

Conversations

He referred to conversations he had had just this week with County Durham upland sheep farmers, who favoured everyone taking a small slice off their BPS payments.

“Their argument was that everyone has to recognise that change is going to come, so therefore a small reduction for everyone means that nobody can be under any illusions that they have to think about what that change might be,” he said.

Mr Gove also suggested there could be some lower threshold, below which no BPS money would be taken during a transition phase. It was also possible that larger farmers could face slightly bigger BPS cuts than smaller farmers, though he was keen to avoid overcomplicating things.

Conservative MP Caroline Johnson questioned whether cutting BPS for all would restrict the involvement in any new agri-environment scheme to larger farmers, who had the resource to go through the application process.

But Mr Gove rejected this suggestion. “There are some farmers – for example, some large tenant farms – where the business is in receipt of a significant BPS payment, but is not a supremely well capitalised or extremely profitable business. So it is not automatically the case that a large BPS payment correlates to someone who is wealthy.”

Countryside Stewardship not fit for purpose

Defra's delivery of the Countryside Stewardship scheme has been weak and this is undermining confidence in both current and future schemes, Mr Gove told the Efra committee.

“One of the biggest problems we have is that the imperfect delivery of Countryside Stewardship means that people who would otherwise be undertaking environmental enhancement are not in the scheme and are wary of joining future schemes as well,” he said.

According to Efra committee chairman Neil Parish, this was absolutely fundamental to the government being able to deliver its environmental objectives.

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"If we are going to take the farming community with us, they are going to need more confidence than they have at the moment in the agencies' ability to deliver," he said. "Yet there is very little confidence on the ground because of the time and complexity involved, and the fact they don't hear from the agency for months."

Mr Parish suggested existing agri-environment schemes (such as Entry Level Stewardship and Higher Level Stewardship) should be extended until the government's new Environmental Land Management Scheme was up and running, effectively by-passing Countryside Stewardship.

Mr Gove revealed there were changes on the way soon that would ease some of the problems.

He also acknowledged the input of the CLA with its recent Land Management Contract proposal. While insisting this might not be the exact model Defra comes out with, the ideas it contained were "very useful".

JOURNAL : Farmers Weekly

More than 100 food and farming organisations have joined forces to call for a Brexit deal that works for UK agriculture.

The UK Food Supply Chain Manifesto sets out key principles they believe can help ensure Brexit is a success for the supply of food in the UK.

It has been drawn up by organisations representing farmers producing the raw ingredients and their suppliers, right through to manufacturers and retailers.

See also: Farm support phase-out must be fair for all - NFU

Published on Monday (28 May), the document sets out the need for positive outcomes on trade, labour, regulation and domestic agricultural policy.

Manifesto principles

The manifesto calls on the government to:

Maintain free and frictionless trade with the EU, and secure the benefits of existing EU preferential trade arrangements, at least until government can replace them with acceptable alternative arrangements

Ensure ongoing access to an adequate supply of permanent and seasonal labour

Continue to promote food production through agricultural policy alongside our existing high environmental, health and animal welfare standards

Ensure businesses operate under an efficient and proportionate regulatory system that is centred on scientific evaluation and that incentivises innovation and competitiveness.

It was signed by representatives from 105 organisations and sent to prime minister Theresa May – as well as other key cabinet ministers.

Organisations

Signatories include the NFU, Country Land and Business Association, National Association of Agricultural Contractors, and the Tenant Farmers Association.

NFU Scotland, NFU Cymru and the Ulster Farmers' Union are also signatories.

Farm suppliers include the Agricultural Industries Confederation, Agrii, CF Fertilisers, Elsoms Seeds, KWS, Limagrain, Procam, Ses VanderHave, the Wynnstay Group and Yara.

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Speaking on behalf of the signatories, NFU president Minette Batters said it was vital Brexit did not undermine the UK's food production and supply sectors.

Ms Batters warned: "A Brexit that fails to champion UK food producers, and the businesses that rely on them, will be bad for the country's landscape, the economy and critically our society.

"Conversely, if we get this right, we can all contribute to making Brexit a success for producers, food businesses and the British public."

Benefits of success

Doing so would improve productivity, create jobs and establish a more sustainable food supply system, said Ms Batters.

The food and farming sector was worth at least £112bn to the UK economy and employed about four million people – meeting 61% of the nation's food needs.

Farmers and food producers provided high-welfare, traceable and affordable food while caring for three-quarters of the countryside and supporting tourism worth £21bn.

Ms Batters said: "When it comes to the nation's ability to produce food, we believe it is critical the different elements of Brexit are carefully considered by all government departments."

The prime minister had herself spoken about the importance of supporting the sector – and the 105 organisations would be looking to ensure the government's objectives achieved this.

JOURNAL : Farmers Weekly

Farmland could be abandoned in the Scottish Highlands and Islands because of the challenges posed by Brexit, warns a report.

Scottish farmers and crofting communities are likely to face major upheaval because of the UK's decision to leave the European Union, says the study.

The report looks at the likely effects of different Brexit scenarios on the economy, local communities, wildlife, the environment and sectors such as tourism.

See also: 9 recommendations to help improve landlord-tenant relations

It concludes that existing trends such as declining agricultural activity, land abandonment and a shrinking agricultural workforce could all be accelerated by Brexit.

These trends will have negative effects on environmental land management – as well as on sectors such as food and drink and tourism, it suggests.

Targeted support

Future policy and funding will need to respond to these challenges and reflect the distinctive needs and contributions of the region, says the study.

The report was commissioned by the Highlands and Islands Agriculture Support Group (HIASG), which comprises five local authority councils and RSPB Scotland.

It is calling on the Scottish government to ensure that future farming, land management and rural development policy after Brexit is properly targeted to support local communities.

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HIASG chairman Douglas Irvine, who is also economic development manager for Shetland Islands Council, said the government should give farmers and crofters time to adapt to change.

Vulnerable

"This report is a wake-up call and shows how important farming and crofting is to the economy, people and environment of the Highlands and Islands, but also how vulnerable it is," he said.

"The challenges faced here look set to increase rather than diminish."

The work was carried out by consultants Andrew Moxey of Pareto Consulting and Steven Thomson of Scotland's Rural College (SRUC).

It was presented at an event in Edinburgh attended by Scotland's rural cabinet secretary Fergus Ewing on Monday (14 May).

Mr Ewing said the report highlighted the distinctive challenges of farming in the Highlands and Islands, both in terms of the land and those available to work it.

Biggest challenge

"It confirms what I have been saying ever since the Brexit referendum – that Brexit is going to be the biggest challenge that the industry and rural communities has faced for generations.

"It is therefore vital that the special circumstances of the Highlands and Islands are not ignored, and that their unique social, economic and environmental conditions remain supported."

Just over two-thirds of Scotland's high nature value farmland is located in the Highlands and Islands region, where agriculture is mainly extensive, small-scale farming and croft-based.

Tourism

The region has a high share of sites designated for their national and international environmental importance – making it a destination for tourists as well as wildlife.

Vicki Swales, head of land use policy for RSPB Scotland, said traditional farming and crofting practices had helped to create a region of enormous environmental importance.

The Scottish government should ensure that the environmental land management carried out by farmers and crofters was properly supported and rewarded.

A recent public poll showed overwhelming support for farmers being paid for managing their land in ways that were good for wildlife, water quality and the environment, said Ms Swales.

She added: "The Highlands and Islands are well placed to benefit from such an approach."

JOURNAL : Farmers Weekly

British farming productivity rose by 2.9% to its highest-ever level in 2017 after sharp increases in crop and livestock outputs, Defra figures reveal.

The data also shows the increased output, combined with higher prices, pushed up total income from farming (Tiff) by £1,683m to £5.7bn.

Broken down, the Tiff figure for each person engaged in entrepreneurial labour - generally farmers and partners in farming businesses - rose by 41% between 2016 and 2017 to £29,794 a year, Defra said.

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The department said a strong harvest in 2017 had been a major driver for the higher productivity, with a 7.3% increase in the volume of all crops produced.

See also: Tax implications of changing to a company structure

Outputs in the livestock sector also rose, with meat up by 0.5% and other meat products increasing by 4% on 2016 levels.

Overall the average increase in volumes for farming was 3.6%.

However, within the figures there were huge hikes in volumes for certain crops.

Barley volumes jumped by 13.2% between 2016 and 2017, while oilseed rape rose by 23%. The biggest increase was seen in sugar beet, where volumes were up by 58%.

Milk volumes were also up 4% on the previous year, while the main increase in the livestock sector was for sheepmeat at 2%.

This compares with a far smaller overall rise of just 0.7% in the volume of inputs used across all farming sectors. The major falls were in fertiliser use – down by 2.4% - and animal straight feeds, which fell by 2.5%.

Total factor productivity up by 2.9%

Total factor productivity is a measure of how well inputs are converted into outputs, giving an indication of the efficiency and competitiveness of the agricultural industry.

Between 2016 and 2017 volume outputs increased by 3.6% while inputs increased by just 0.7%. The calculated difference between the two figures at 2.9% is the figure used to show how productivity has changed.

The increased productivity recorded shows farmers are producing more with less, which suggests they are using smarter, more efficient methods and embracing innovation, Defra said.

The NFU said the performance was further evidence that the sector needed to be properly valued by the government post-Brexit.

NFU deputy president Guy Smith said: "This is positive news for the farming sector and very clearly demonstrates the significant contribution agriculture makes to the wider economy.

"As the NFU prepares to submit its consultation response to the government on a future farming policy, these newly released figures provide further evidence that a new agricultural policy must allow farm businesses to be productive, profitable and progressive."

But Mr Smith said the figures should be treated with some caution because the increase in incomes was achieved on the back of low profits in previous years.

"It is important to remember that this rise comes after three years of falling profits and margins, and increased price volatility for many across the industry.

The NFU is concerned whether this performance can be sustained in future years," Mr Smith said.

"In addition to the effects of the recent wet weather, the cost base of the industry has been rising. Some farm commodity sectors are also witnessing price falls from the highs seen in 2017. The milk price, for example, has fallen nearly 8% in the past three months," he added.

"Lower farmgate prices will feed through to a lower bottom line for 2018 and it would be reckless to draw from these figures that farming is entering a period of sustained profitability.

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"In order to put farmers in the best position to continue producing food for the nation, this sort of volatility needs to be addressed in future agricultural policies. The NFU believes that with the right government policies, Britain's farmers can continue this impressive performance."

JOURNAL : Farmers Weekly

Sugar beet hauliers were "groomed" to expand their businesses without any guarantees of bigger contracts to **harvest** and transport the crop, suggests a report.

The allegation was made by operators during an independent assessment of the British **Sugar** Industry **Harvesting** and Haulage Scheme – and how it might be improved.

The scheme was set up by British **Sugar** in 2010 to provide **harvesting** and transport services to **sugar** beet growers – but has faced criticism from farmers and hauliers.

See also: How to avoid losses from cercospora beet disease

Jointly funded by British **Sugar** and NFU **Sugar**, the Douglas assessment looked at each stage of the scheme to identify where greater transparency would benefit growers and hauliers alike.

Areas of concern

The assessment report outlines areas of concern – including grooming, poor relationships and some ill-feeling and mistrust between British **Sugar** and hauliers.

Some operators were allegedly encouraged to increase haulage capacity so they could transport more beet – but then allocated low or no tonnage as their rates were deemed too high.

"Selected operators claim to have been encouraged to invest significantly and to grow their capacity, without guarantees of tonnage," says the report.

But the report says it found no evidence of any wrongdoing within the scheme's operation and any allegations appeared to be anecdotal only and without factual evidence.

It also points to a "lack of understanding" among the wider community of growers and hauliers in relation to the tender process for contracts with British **Sugar**.

Reconciliation needed

The Douglas report recommends reconciliation with "groomed" hauliers to prevent the perception of British **Sugar** ditching operators solely on price.

And it says repeatedly negotiating year-after-year with multiple hauliers should be avoided as it creates conflict, particularly with long-standing contractors who are later eliminated.

British **Sugar** says it will now implement improvements to the scheme ahead of the 2018-19 **sugar** beet **harvest** – and says it will communicate these changes to growers in due course.

British **Sugar** managing director Paul Kenward said: "I take the recommendations of the Douglas report very seriously and we are committed to implementing them."

The scheme had the potential to drive further efficiencies and yield improvements and British **Sugar** would continue to work with NFU **Sugar** to deliver a better scheme, he added.

Transparent future

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NFU Sugar board chairman Michael Sly said growers had maintained for some time the scheme had focused on cost reduction at the expense of value to the industry.

"Talking with growers there are plenty of examples of fragmentation..., which not only goes against the core aims of the scheme, but has been a real financial and logistical burden.

"To remain competitive in the post-quota world, our industry must focus on maximising yield potential from farm to factory."

It was pleasing that British Sugar had committed to making improvements and work with NFU Sugar to make further changes for it to operate more transparently, said Mr Sly.

Principles for improvement

In addition to reforming the haulage scheme, NFU Sugar and British Sugar have also agreed three principles it must operate to and will now work together to make the changes.

The principles are:

Maximise value to the industry Focusing on maximising yield potential from farm to factory and continuing to drive efficiencies

A well-run and operated fairly scheme Organised appropriately and operated transparently, with clear, open, honest and timely communication

Encourage and reward Define, communicate and reward best practice

JOURNAL : Farmers Weekly

Butter prices have hit a record seasonal high after milk production grew at a slower rate than buyers anticipated.

In the 13 months since March 2017, UK wholesale butter prices have reached record seasonal highs every month, according to AHDB Dairy.

Although they remain well short of the overall peak of more than £6,000/t in August and September last year, the price for April hit £4,660/t.

See also: Dairy wholesale markets stable as poor weather continues

That is an increase of £935, or 25%, on year-earlier figures, when prices were at about £3,725/t in April 2017.

AHDB senior analyst Patty Clayton said there was concern in the market about supply levels, with stocks still tight and milk production growing at a slower rate than anticipated.

"Earlier in the year there was an expectation milk supply would increase," said Ms Clayton.

"But this hasn't been the case - mainly because of the poor start to the growing season.

"This is causing a nervousness among the buyers and pushing up prices as they compete for stocks."

In April, an AHDB report suggested deals had been struck where product was still needed to fulfil the orders, forcing buyers to venture into the spot market.

The effect on prices was marked and they rose quickly from £4,200 to hit the record average for the month.

As well as the questions over future supply, a further driver for the rising price has been stronger consumer demand for fats.

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Several studies questioned the link between saturated fat and heart disease and food trend analysts suggested that consumers had returned to using butter because of a popular belief that it was a healthier alternative to margarines.

JOURNAL : Farmers Weekly

A large-scale weather scare in a major producer can often trigger an upturn in grain prices on the back of a tangible risk to grain supplies. At other times it can be a collection of "what-ifs?"

While recent weather events in some parts of the world have been significant enough to fall into the first category, the majority are far from done deals, with plenty of time for conditions and growth to catch up.

The combination has been enough to unsettle markets, however, with grain prices rising accordingly despite the ongoing strong stocks and supply situation.

See also: Business Clinic: How can I recruit good farm staff?

Although the US experienced a slow start to corn and spring wheat plantings due to heavy snow, followed by rain, the situation has now improved and it is generally the hot and dry conditions in some regions that are causing concerns.

Indeed, dry conditions causing historically poor crop ratings in US hard red winter (HRW) wheat in the southern plains has been one of the main market drivers recently.

Stuart Shiells is UK trading director at Cofco International

During the recent Kansas Wheat Quality Crop Tour, yield estimates were put at just 37 bushels/acre (bpa) against last season's final yield of 48bpa – a drop of 23%.

With most of the HRW crop now reaching critical growth stages, better weather could still have a big effect on final yields.

In fact, following the mid-May USDA report, a lack of fresh bullish data, combined with more favourable weather forecasts for key regions, has been enough to take markets sharply lower.

Too late to reverse yield losses in Brazil

Another area exerting a strong influence on prices recently has been the Safrinha corn crop in Brazil, where dryness has caused some analysts to cut total corn production estimates to as low as 82m tonnes from the USDA's earlier 92m tonnes.

Although rain would help stabilise the crop, it's now probably too late to reverse yield losses.

At the same time, the market is keeping a close eye on Australia, where a similar lack of rainfall could affect planting prospects.

Russian rain limits Black Sea losses

Some areas of the Black Sea region have also experienced dryness, but recent showers have stopped this becoming a real issue. With Russia being the world's cheapest source of wheat, it will continue to be a big market driver in the coming season.

Although some damage to 2018's global production potential has been done, the general feeling is that the effects of this are already priced into the market.

If all the worries in different countries deliver their full consequences, prices could have further to rise, but the reality of this happening is historically remote.

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At the same time, there are signs that prices are already starting to slip as the current stories play out and lose their hold.

The bottom line is while there is hope that prices can move a little higher, it will take something new and significant like a major weather event in the Black Sea region to really drive the market further.

Effect on the UK

The price rally has been a welcome diversion against a backdrop of a wet, cold spring and late planting woes.

While the poor start to the year has triggered concerns over spring-sown crops, the recent warm weather has done much to help growers catch up. Winter wheat crops are generally looking strong.

Across the EU, crops look good too and with a good chance Russia's production might not be the record breaker it was last year, export opportunities to take up the slack could be forthcoming.

Unfortunately, the UK is unlikely to benefit much from this, with current production estimates putting 2018 in the same range as last year, resulting in a very small exportable surplus.

A summary of the current main price factors and their probable influence

Red: Factors putting downward pressure on prices – accounts for 20% of current market influence

Canadian wheat area forecast at 10.2m hectares compared with 9.06m hectares last season, plus a record wheat crop of 20m tonnes could be produced in Argentina. Brazil could produce 117m tonnes of soya beans, helping to offset any shortfall in the Argentinian crop.

Amber: Watch this space – 50%

A lot of weather stories need to play out across the world. While any one of these is unlikely to unsettle the bigger picture, a few adverse results together could. Australia's problems with high temperatures are the latest to come under the spotlight.

Green: Factors exerting upward pressure on prices – 30%

Drought problems in the US southern HRW wheat belt, a slow start to US corn and spring wheat planting and less-than-perfect conditions in South America will continue to underpin the market until conditions improve.

Cofco International UK is the new name for Nidera UK.

JOURNAL : Farmers Weekly

New proposals from the European Commission promising significant cuts in CAP spending from 2021 onwards have underscored the value of Defra's promise to UK farmers that support payments will be maintained at current levels until at least 2022.

Agriculture is a significant loser in the long-term EU budget plans for 2021-27 unveiled by the commission on Wednesday (2 May), with funding for the CAP set to be cut by 5% compared with the current 2014-20 funding period, according to the commission's calculations.

See also: Eight Farmers Weekly awards finalists give their diversification tips

This contrasts with Defra's promise to "maintain the same cash total funding for the [agriculture] sector until the end of this parliament [2022]".

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As things stand, therefore, UK farmers face the prospect of unchanged subsidy payments for at least the first two years after Brexit, while their continental counterparts face reductions.

The reduction in CAP funding is due in large part to the loss of the UK's net contributions to the EU budget after the Brexit transition period finishes in 2020.

To soften the political effect of the changes, the cuts will fall more heavily on agri-environmental and rural development measures in Pillar 2 of the CAP than on direct aid payments (Pillar 1).

Unveiling the plans, EU agriculture commissioner Phil Hogan promised no EU member state would see its national budget for direct aid payments reduced by more than 3.9% – and some countries, especially in eastern Europe, will see increases.

CAP payment cap

But Mr Hogan also confirmed earlier leaks suggesting that under the new CAP, payments per farmer will be capped at 60,000 (£52,000). The detailed proposals on changes to the CAP are due to be officially presented on 1 June.

The total CAP budget for 2021-27, adjusted for inflation, will be about 365bn (£322bn), compared with 382.5bn (£337bn) for the EU (excluding the UK) in 2014-20.

But the axe will fall especially heavily on Pillar 2, where seven-year spending totals are going to be about 15% lower than in 2014-20 – much to the annoyance of environmental and countryside campaigners.

The commission also wants member states to make significantly higher contributions to co-funded programmes in Pillar 2 than at present.

The whole financial package will be the subject of fierce and complex arguments between member states over the next 12 months or so, and there could be significant changes to the plans before they are finally agreed next year.

JOURNAL : Farmers Weekly

Growers will be able to vary their arable crop inputs using just an iPad thanks to a new low-cost app.

Users of Hutchinsons' Omnia precision agronomy tool will be able to transfer variable-rate field data with just a click of a button from the office straight to a tractor in the field, removing the need to use memory sticks.

This means fields will be able to be drilled, fertilised and sprayed taking into account Omnia's field performance and cost-of-production mapping tools.

See also: How a Hampshire farmer is managing contrasting soils

By connecting straight into the machine's controller, the app allows growers to use the existing variable-rate capabilities of their fertiliser spreaders, drills and sprayers without the need to unlock or update the controller, which can be an expensive option.

Simplicity

While the app is primarily aimed at small- to medium-scale growers who have not yet invested in auto-steer technology, instead making use of the iPad's own built-in GPS system, the ease at which data can be transferred to the field is expected to appeal to all growers.

Precision technology manager Oliver Wood said the driving factors for Hutchinsons in developing the app were to create an affordable and simple way of accessing variable-rate technology.

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"The data transfer element of the process has always been a challenging area for farmers, so we have done anything we can to make it easier," he said.

While the app is compatible with a wide range of machinery via its connect box, it can only be used with Hutchinson's Omnia technology, and will cost an additional £300 per year.

JOURNAL : Farmers Weekly

A key seed-borne disease of barley appears to have overcome the azole chemistry found in seed treatments used in the winter barley crop.

Outbreaks of loose smut have been reported in treated crops this year from across the UK. The problem has also been confirmed in France.

The seed industry is waiting to see if the disease will also be seen in spring barley.

See also: Top tips on tackling pests when establishing OSR

While not confined to a single variety or region, the widespread problem has occurred regardless of the barley seed treatment used – all of which contain azole chemistry.

Looking for loose smut

Infected barley plants are easy to spot, as masses of spores (or smut) replace the entire barley head and then infect the open flowers of healthy plants by wind or rain dispersal.

The spores, which are released as soon as the ear emerges, then germinate and infect the developing grain, staying there without showing symptoms until the next growing season.

The fungus develops in the growing plant, but only becomes apparent when the plant reaches maturity in the following year.

The blackened ears are an alarming sight, but the disease may only be present at low incidence levels.

As a result, Bayer has confirmed it is investigating the causes, the results of which will be shared with the industry as soon as they are available.

Barry Barker, national arable seed manager with Agrii explained azole chemistry was included in seed treatments to improve the control of barley diseases and, up until this year, has always given good control of loose smut.

"In our case, Raxil Star and Raxil Star Deter are the treatments. We were alerted four weeks ago to some unexpected loose smut infections, with the majority of problems that we've seen being found in the variety Glacier."

Four growers

Agrii's Glacier seed came from four different growers and went through three processing plants, with the seed treatments being applied at the correct rate and in the right conditions, he reported.

There are also reports of the disease being found in other winter barley varieties, including the hybrid barley Sunningdale and the winter malting type Flagon, and where the seed treatments Redigo Deter and Celeste Trio have been used.

Our advice is to get out in the field and look for any signs of the disease and to test seed for loose smut Barry Barker, Agrii

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"Fortunately it won't have a big effect on yields this year because infection levels are below 0.5%," commented Mr Barker. "We don't yet know whether the seed treatments have given no control or are only giving partial control.

This autumn

"The bigger question for growers is what they should do this coming autumn, especially if they are planning to home-save some seed. Our advice is to get out in the field and look for any signs of the disease and to test seed for loose smut."

The EU minimum standard for loose smut infection in seed is 0.5% while the higher voluntary standard, which the UK operates to, is 0.2%.

"Either way, growers are likely to see it in the field until new chemistry comes along," pointed out Mr Barker.

"There are seed treatment products based on other chemistry in the market, but they are not approved for use in barley."

He stresses there is nothing the industry could have done to prevent this occurring. "We are looking for confirmation on the type of resistance at play so that we can work out the best strategy for this coming autumn.

"It does mean that some barley seed stocks could be limited."

JOURNAL : Farmers Weekly

All four farmer finalists in the industry's first yield competition fought off strong competition in what was a record beet-growing season and very high-yielding year.

The four finalists of the Beet Research Organisation's (BBRO) Beet Yield Challenge are Guy Hitchcock of Hitchcock Farms in Suffolk, Will Jones from Salle Farms in Norfolk, GR Mawer and Son from Grimsby and Mark Means of JS Means in Norfolk.

The overall winner is set to be revealed at the Royal Norfolk Show at the end of the month.

See also: How to manage disease in sugar beet crops

Of the 28 fields entered from all four factory areas, the average yield in 2017 was 97.4t/ha.

This represented 73.5% of estimated potential yield – something the BBRO described as phenomenal and due largely to favourable early summer weather, which drove rapid crop canopy development.

Grown on a range of soil types with different cultivation practices, drilling and lifting dates, the crops entered in the challenge provide a unique barometer of UK sugar beet production and have helped to highlight some key focus areas, said Simon Bowen of BBRO.

"It came as no surprise to us that attention to detail at each key stage of production is what separated the good crops from the very good crops.

"This applies right from primary soil cultivation through to delivery at the factory," Dr Bowen said.

Dry start

Given the very dry start to the 2017 growing season, soil management and seed-bed production were challenging and resulted in delayed emergence and some patchy establishment – which is where between 12-17% of potential yield was lost.

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"It reinforced the importance of seed-bed quality and achieving the recommended 100,000 established plants/ha. All of the highest-yielding crops, including the four finalists, had plant populations in excess of 100,000/ha."

But the stand-out feature and base for high yields in 2017 was the very rapid canopy development in May and June, revealed Dr Bowen, with those crops that reached higher crop cover scores by 21 June having the greatest yields.

"We had higher-than-average rainfall in early summer, which helped, as soil moisture is key at this stage.

"Attending to crop needs in this rapid-growth phase is also important, so adequate nutrition proved essential. Checks to growth from herbicides and bird and pest damage were kept to a minimum in the best crops," Dr Bowen said.

BBRO Key focus areas

Seed-bed quality – establish a uniform 100,000 plants/ha

Seed rates – higher seed rates help compensate for difficult early conditions, but are not a substitution for good seed-beds

pH levels – sugar beet is sensitive to pH, with an indication of higher yields from higher pH levels

Early canopy growth – very rapid canopy development in May/June in a high-yielding year

Weed control – early identification of weeds allows tailoring of herbicide programmes

Foliar disease – yield-limiting factor, third spray paid in later-harvested crops

Harvest date – select the right crops for later harvesting

Manure benefits

An effect of organic manures on this key early growth stage was noted, with the average yield of crops receiving manures being 106t/ha, compared with an average of 93t/ha where no manure was applied.

Protection from foliar disease also played a role in the results, with vigilance for the first signs of disease helping with optimum spray timing and product choice. While most crops received two fungicides, a third spray was cost-effective for later-harvested crops.

"Where the number of sprays was tailored to expected harvest date, there was an impact on yield," Dr Bowen said.

Later harvest dates gave higher yields, but highlighted a tendency for crops to achieve a lower percentage of their potential, he noted.

"The longer the crop is left in the ground, the wider the range of variables it is subjected to. Again, it's down to detail – selecting the right fields, varieties and agronomy programmes can all make a difference with later-harvested yields."

Results from the Beet Yield Challenge

Adjusted yield range

(t/ha)

Percentage of crops

70-80

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7

80-90

25

90-100

29

>100

39

Percentage of potential yield achieved

Percentage of crops

<60

7

60-70

32

70-80

39

>80

21

JOURNAL : Farmers Weekly

High-yielding, low-input oilseed rape varieties suitable for an integrated farm management approach are the aim of breeder DSV's triple layer concept, which was unveiled at Cereals 2018.

The new concept will form the basis of the company's future breeding strategy, as it concentrates on producing varieties with the yield and performance stability growers will increasingly need to overcome complex challenges.

See also: Advice on achieving high OSR yields with good establishment

Those include restrictions on pesticide and fertiliser use, climate change and seasonal stresses, said DSV's Alex Doering, who added triple layering will be combined with the company's existing variety characteristics of strong early vigour, good compensation powers and open plant architecture.

"Having developed these characteristics in our post-neonicotinoid breeding initiative, we are now bringing in additional layers of disease resistance and yield protection traits," he said.

"It should allow us to develop a 'drill and forget' production system for oilseed rape, so that costly agronomic intervention becomes a thing of the past," Dr Doering added.

Triple layer

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The term triple layer refers to a combination of disease resistance trait and physical characters found in the company's latest development hybrid varieties – all three of which are under test in the UK and expected to become candidates later this year (see 'Triple layer varieties', below).

If successful, they are likely to be the first commercially available varieties to combine all of these traits.

The first layer is multi-gene resistant to phoma and light leaf spot, while the second and third layers bring in verticillium wilt tolerance and pod shatter resistance.

"It allows the varieties to be grown with fewer inputs and in a range of conditions, making them easy to manage and giving consistent results," added Dr Doering.

The company is also working on turnip yellow virus resistance, with a portfolio of resistant varieties showing good yield stability in a number of European countries.

In addition, it is hoping to develop the first multi-layered Clearfield variety and has clubroot-resistant varieties in the pipeline.

Triple layer varieties

Currently in National List year two, the three varieties that have the triple layering (turnip yellows virus, pod shatter and phoma resistance) are:

WRH530 (Award)

WRH532 (Dazzler)

WRH527 (Darling)

JOURNAL : Farmers Weekly

Farmers can get a glimpse of a pest and disease forecast service set to be launched in autumn 2019, offering a 10-day prediction of key pests and diseases.

A prototype is running on the Crop Monitor website, giving farmers a feel of what the tool will offer.

The existing Crop Monitor platform, which is free for farmers, is a valuable source of pest and disease alerts for growers and agronomists, said Guy Thallon, Fera's strategic business development manager.

See also: 5 pea and bean pests for growers to look out for

It brings together in-field leaf assessments from selected sites and Met Office weather data plus AHDB and Rothamsted aphid data.

However, autumn 2019 will see the launch of a local forecasting element for more than 40 pests and diseases of wheat, barley, oilseed rape and potatoes, in conjunction with Crop Health and Protection.

Moray Taylor, Fera disease expert said it would include septoria, yellow and brown rust fusarium and eyespot in wheat, light leaf spot, phoma and alternaria in oilseed rape and for barley, mildew, net blotch and rhynchosporium.

Subscribers will be able to check out their nearest site to get a local forecast and the service will initially be for 100 locations across the UK.

Further developments are in the pipeline including new spray window forecasts to help farmers predict spray days. Dr Taylor said it was undergoing further development and validation.

To access the forecast, go to the Crop Monitor website and click on the York location.

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JOURNAL : Farmers Weekly

The Cereals event returned to its regular southern haunt at Chrishall Grange, Cambridgeshire this week. Farmers Weekly's Machinery team headed down the drills and cultivation isle to pick out some highlights.

Brocks Campaign drill

Making its Cereals debut in the working plot area was the huge Campaign drill built by Essex machinery dealer Brock.

The orange-livered unit was launched last November at the firm's open day and is available in widths from 8-13.3m – ideal for controlled traffic operations.

See also: Cereals 2018: sprayers and spreaders

A monster 5,500kg hopper has a 50:50 split to allow seed and fert to be drilled together and has hydraulic folding lids to keep the rain out.

There's also a nifty diesel-powered heater to remove any moisture that has worked its way into the hopper overnight to avoid seed becoming damp and bunging up the pipes.

Key to the drill's design is the two central flotation wheels that bear the weight, leaving the following tine arrangement (spaced at 150mm centres) free to follow ground contours and deal with wetter conditions.

Top-spec Streamline models have Topcon software on-board for auto shut-off on headlands and automatic calibration, while LED lights are standard too.

A swing out mini-auger helps remove left over seed from the hopper.

An 8m model should need 280hp and will cost close to £127,000.

Horsch Serto disc drill

The trend for later drilling has prompted Horsch to introduce a wide disc drill that can cover the ground as quickly as possible.

Called the Serto SC it boasts a 6,000-litre hopper, working widths of up to 12m and drilling speeds of 20kph, meaning it should be able to deliver on that promise.

There are no cultivation elements to the drill (other than a set of disc wheel track eradicators) so it's designed to work in a conventional plough-based or min-till situation.

In these conditions, the full-width tyre packer consolidates the ground before the heavy-duty double-disc coulters deposit the seed.

These have hydraulic pressure adjustment from 5 to 150kg per unit, with colour-coded shims for fine-tuning the settings. The coulters are also mounted on a parallel linkage for better contour following.

Unlike many double disc units with a leading disc to cut a slot, the Horsch units are mounted in line to force a more pronounced opening. An adjustable press wheel at the rear then pushes soil over the seed.

The hopper itself is split into two 3,000-litre sections with separate metering, meaning two types of seed or seed and fertiliser can be applied. There's also a microgranular applicator on board.

The 12m machine pictured needs about 300hp on the front and has a list price of £160,000. There's also a smaller 10m version that comes in at about £135,000.

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Lemken Azurit

Taking centre stage on the Lemken stand was the Azurit 9 precision maize drill, which made its first UK appearance at the Lamma show.

This techy piece of kit places the seed in two rows at alternate spacings, with the added bonus of being able drop a line of fertiliser between the seeds. Lemken also says it will maintain accuracy at speeds of up to 18kph.

Manual depth and pressure control for each seeding unit is available too, as well as a tramlining feature and Isobus connectivity.

The machine can also be connected to the rear of the firm's Solitair cereal drill when the toolbar has been removed. This allows the Solitair's standard 3t hopper to be used for fertiliser, while the 200kg Azuirt hopper can hold the maize seed.

The Azuirt is available in 3m, 4m and 6m-wide guises with the option of 50cm, 75cm and 80cm-row spacings. The eight-row version is likely to be the most popular in the UK and this has a list price of £62,312.

Landquip Stack and Jack

To put an end to jacking up kit off a wobbly section of wooden blocks found around the yard, Landquip has come up with the Stack and Jack.

This adjustable-height piece of lifting gear has a 15t bottle jack at the top and four interlocking steel sections that can be added or removed to get you to the correct height.

To prevent slippages when in use, the sections are locked in place with a pin and the whole unit is mounted on a trolley, making it easy to shunt around. When the front of the trolley is lowered the rear wheels lift off the ground for added stability.

It's available in various combinations of sections, but the full 250mm to 1,750mm system pictured costs £699.

Sahco Geacut 600

For those with bulky cover crops to knock down before direct drilling, parts supplier Spaldings is offering the Geacut 600 from Sacho Land Solutions.

This 6m folding implement has three serrated rollers that can thunder along at speeds of up to 30kph to help reduce the bulk of the crop to more manageable levels.

At these speeds, there's a considerable shock impact between the outer wings and the frame, so large rubber doughnut-style bushes have been fitted to absorb it.

In standard form, the Geacut weighs 5,210kg but water ballasting can push this up to 7,020kg to provide extra cultivation on heavy soils or to penetrate through particularly dense vegetation.

As well as cover crop bashing, Spaldings says it can be used on long maize or oilseed rape stubbles. The full-width steel blades can also be replaced when they're worn out.

It has a list price of £28,000 and apparently a 150hp tractor should be adequate to pull it.

Agrimaster R250W hedgecutter

Alongside the 8m GD drill, Weaving was showing off several more modestly sized items from its Italian-built Agrimaster stable.

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The first is a cheaply priced Golden R250W hedgecutter that uses a joystick in the cab to provide proportional movements of the trimmer's hydraulic functions via cables, much like an old loader tractor control.

The basic design does away with any unnecessary electronics and is perfectly suited to running on a sub-100hp tractor.

Base spec models cost just £9,800 and come with a rotor reverse function, parallel arm, head float and power slew.

The company was also showing what it reckons is the first fully offset flail mower – the Blade N260.

This means the tractor doesn't have to run on the grass while mowing, which helps to produce a more consistent cut.

A hydraulic break-back mechanism offers some protection from immovable objects too, and sprung suspension helps with self-levelling.

There's just one width – 2.6m – and it pivots backwards to lock into transport mode. The asking price is £5,800.

JOURNAL : Farmers Weekly

Limagrain has such high hopes for its soft feed wheat candidate, Skyscraper, that it is making up to 4,000t of seed available for this autumn.

Described as a breakthrough variety, Skyscraper is the highest-yielding wheat candidate on 109%, so the company's decision to accelerate seed production by a year means farmers have an opportunity to try the high-performing variety before it is fully recommended.

See also: Kent grower's second wheat crop measures up to first

Breeder Ed Flatman said Skyscraper combines very high yields with desirable agronomic characteristics and end market opportunities, putting it in a league of its own in the feed wheat sector.

Skyscraper – disease resistance on a scale of 1 (least) to 9 (most)

Mildew: 7

Yellow rust: 8

Brown rust: 6

Septoria: 5.9

Eyespot: (4)

Orange wheat blossom midge: resistant

"It's a barn-filler, but not a high-input variety," he said. "It will give some of the hard feed wheats a run for their money and could end their 10-year dominance."

Those agronomic characters include orange wheat blossom midge resistance, good all-round disease resistance ratings (see 'Skyscraper – disease resistance on a scale of 1 (least) to 9 (most)', right) and equivalent maturity to Diego (0), while consistent yield performance has been seen across regions and seasons.

A taller type at 90cm in height, Limagrain research done on Skyscraper to date suggests it has similar standing power to other feed varieties, with the company anticipating it will get 7 ratings for resistance to lodging with and without plant growth regulators (PGRs).

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"We've had two seasons with PGR timing issues and some of the 2017 lodging data should be viewed with caution," said arable technical manager Ron Granger. "It was an erratic year, which made it difficult to target spray programmes."

Skyscraper – Summary

Very high yield of 109%

Soft milling feed candidate variety

Provisional "good" distilling rating

All-round disease resistance

Early maturity

Orange wheat blossom midge resistance

As with other Limagrain varieties, Skyscraper will respond to a split PGR programme based on chlormequat and a "sniff" of Moddus, he advised, with either Cerone or Terpal a sensible precaution on high-fertility sites.

A Santiago/soft wheat cross, its pedigree explains its high-tillering capacity and semi-prostrate winter growth habit, as well as its rapid spring development.

"We suggest drilling it from the third week of September onwards, not in the very early drilling slot," added Mr Granger.

In terms of grain quality, Skyscraper has a Hagberg of 216, a specific weight of 77.7kg/hl and a grain protein of 12.5%.

More importantly, after two years of official testing, it has been given a provisional good rating for distilling, making it of potential interest to growers in the North.

Limagrain data also suggests Skyscraper does well in the second wheat position.

JOURNAL : Farmers Weekly

The Cereals event returned to its regular southern haunt at Chrishall Grange, Cambridgeshire this week. Farmers Weekly's Machinery team delved into the sprays and sprayers ring in search of the latest crop protection kit.

John Deere R4050i

Flying up and down the sprays and sprayers demo area was the flagship John Deere 4050i self-propelled unit, with a larger 5,000-litre tank, carbon-fibre boom and a few new tricks up its sleeve.

A fresh transmission has been built by Deere and, although it does bear similarities to the old one, there's now a cruise control feature on the joystick and independent wheel slip control. This is designed to direct power to the wheels with the most traction and will hopefully avoid it getting bogged down in wet holes.

See also: A pick of the latest kit on show at Cereals 2018

This new single-range hydrostatic transmission is now standard on all JD's self-propelled models.

Also standard (and an option on trailed machines) is PowrSpray, which uses two centrifugal pumps to handle huge water volumes.

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A 1,200 litres/min filling pump pulls clean water into the tank. Due to the speed of filling, Deere has added a pause feature, which stops the tank level rising and allows the operator to add the chemical through the induction hopper.

Cleverly, the rinse water for the hopper comes from the paused pressurised external feed. This way, there should never be a rush to get all the chemical in before the tank is brimmed and cans are washed with clean water, as opposed to mixed chemical solution from the tank.

The second spraying pump is 1,000 litres/min and can reach 0-8bar in under three seconds. This two-pump design also means the filling pump handles the clean water and the spraying pump takes care of the chemical solution.

There are also two new boom levelling options that use either two or three sensors across the width to keep things running straight.

Litetrac boom spreader

Peterborough-based sprayer maker Litetrac has added a pneumatic boom spreader to its line-up.

The in-house-built machine comes with a 950kg stainless steel hopper – although extensions are available to increase this – and it's available with 12m or 24m aluminium booms. These can also have up to 24 individual section controls.

To give a smooth ride on rough ground, the central frame and hopper are air suspended. This suspension system also allows the unit to self-level.

The machine was originally designed for use in the field trials sector, but the firm says it's suitable for broad-acre arable units as well.

Prices vary according to size and spec, but most will come in between £35,000 and £40,000.

Dammann DT2800H S4

Featuring Dammann's usual bright colour scheme, the self-propelled DT2800H S4 sprayer has a totally new cab that the company says gives operators oodles more glass area and room inside. It has also scrapped the odd-looking car-like grille styling from the previous unit.

The bones of the cab are made by Dietec in Germany, but the fitting and construction for everything inside is completed by the in-house team at Dammann's Hamburg factory.

Customer research highlighted that staring at crop reflections all day was draining, so the new full-length front window can be darkened at the bottom to reduce glare and movement from the crops.

The cab is now standard on all of the firm's self-propelled models and has slight tweaks to the sliding door opening and the option to have multiple screens arranged on the right-**hand**-side of the driver.

Muller provides the hardware for the spraying screen, which is now attached to the seat and moves with the operator, while there are LED lights all round and plenty of room for a large hound on the cab floor.

The model on the stand at Cereals costs about £246,000.

Fendt Rogator 655

The Rogator sprayer made its Cereals debut in Fendt colours, almost a year after Agco revealed the extent of its rebranding exercise that has all but killed off Challenger products in Europe.

The 655 model on stand is the biggest in a range of three and comes powered by a 242hp six-cylinder sourced from the company's engine division, running through a CVT gearbox.

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Top-spec tank capacity is 6,000 litres (the smallest is 4,000 litres) and maximum width of the aluminium booms is 36m.

Other details to note include an empty weight of 12,500kg, 3.6m wheelbase and 6.28m turning circle.

JOURNAL : Farmers Weekly

Wheat growers should focus on 10 varieties for this autumn's drilling which could save them £40/ha in fungicide costs, and cut the risk of big yield losses in a high-disease season.

Improved resistance to wheat's biggest disease threat, septoria, means growers can choose to grow these varieties, such as Siskin, Graham and Sundance, which can save on fungicide spray costs compared with the likes of Santiago, Diego and Barrel.

Bill Clark, fungicide expert at crop consultant Niab, said growing these varieties should allow growers to use only one SDHI and moderate rates of azoles, compared with two SDHIs and higher azole rates for disease-susceptible varieties.

"Growers can save about £40/ha on fungicide costs by changing varieties, and also reduce risks in a high-disease year," he told Farmers Weekly at the 2018 Cereals event, held at Chrishall Grange in Cambridgeshire.

See also: Why growing a Group 3 wheat may pay off next season

Mr Clark said growers could make quite a saving in a high-disease year by growing Graham with a fungicide cost of £98/ha, compared with Santiago at £135/ha, while in a low-disease year Graham would have a fungicide cost of £63/ha compared with Santiago at £110/ha.

He list the top 10 varieties from the AHDB Recommended List with good disease resistance as Dunston, Zyatt, Moulton, Motown, Sundance, Illustrious, Graham, Freiston, Crispin and Siskin.

These all show good resistance to septoria and so low yield responses to fungicide regimes, which may be as little as 1.41t/ha for Dunston compared with untreated crops.

Fungicide programme

These varieties should only need a reduced fungicide spray programme where a T0 is usually not required, a T1 is of a moderate-dose azole plus a protectant fungicide such as chlorothalonil, a T2 of a moderate rate of azole-SDHI plus a protectant and a T3 of a moderate-dose azole.

There is a moderately disease-resistant group of varieties, including those – such as Revelation, Skyfall, Costello, Gleam, Elicit and Bennington – wthat show a moderate response to fungicides of between 1.82-2.02t/ha.

The disease-susceptible group of varieties would include Santiago, Reflection, Cordiale, Leeds, Barrel, Lili and Diego, where the fungicide response is up to 3.77t/ha as in the case of Santiago.

These would have a full fungicide programme of a T0 consisting of an azole plus protectant, a T1 of a high-dose azole-SDHI plus protectant, a T2 of a high-dose azole/SDHI plus protectant, and a T3 of a high-dose azole.

JOURNAL : Farmers Weekly

A conventional winter barley delivering hybrid yields plus a potential Group 2 wheat with an untreated yield 33% above control varieties are among the latest KWS varieties up for recommendation this autumn.

Two-row barley

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The latest two-row barley variety Gimlet offers a step up in yields with a treated yield of 107% and the joint highest untreated yield, which KWS barley breeder David Harrup said looks really promising.

“In the arms race of conventionals versus hybrids, it brings conventionals back up to that of the hybrid Bazooka, but with a lower seed cost.”

See also: Why growing a Group 3 wheat may pay off next season

Its strong resistance to wet weather diseases is the reason for its good untreated yields and it also has five to six more grain sites per ear than other KWS two-row varieties.

Another feature is the high yields are being achieved without pushing maturity, being harvested one-to-two days earlier than Glacier.

And while it is a little taller at 97cm, it has a good lodging score (3%) and stood up well last season.

Group 3 wheat

Moving to wheat, Firefly is a potential Group 3 offering a yield of 106% in the East and West, which is up with Elicit and Barrel.

It also has a good septoria resistance of 6.3, which is similar to Elicit, which combined with a brown rust rating of 7 and 9 for yellow rust results in a good untreated yield, said KWS sales and cereals manager Will Compson.

However, one key advantage is its good grain quality, offering a Hagberg of 253.

Group 2 wheat

The third variety, Extase is from the KWS French breeding programme, which is attracting attention in France. The variety is also performing well in Denmark and soon arrive in the UK, says Mr Compson.

One notable feature he highlighted is its very good disease resistance, resulting in an untreated yield of 146% in the first year of National List trials and 136% in the second year.

“The fact [Extase] maintained this level in two trying years means it is something special,” he said.

This is 20% ahead of the best and 33% ahead of the controls. It is due to a combination of having the top yellow rust rating of 9, a 7.3 for septoria and also being strong on mildew and brown rust.

Pushing for septoria resistance can lead to poor grain quality, but good grain quality has been maintained. Another valuable trait is its early maturity, being close to Cordiale and Gallant.

“With the loss of actives, varieties like Extase will be in vogue for the future,” said Mr Compson.

JOURNAL : Farmers Weekly

Growers are being urged to invite MPs on to their farms this harvest as part of a major campaign to highlight the importance of the cereals sector to the UK's food and drink industry.

Launched by the NFU on the first day of Cereals, the Your Harvest campaign aims to raise the political profile of the arable sector – and emphasise its contribution to the economy – as the government prepares to publish its Agriculture Bill detailing its policies for farming after Brexit.

See also: A pick of the latest kit on show at Cereals 2018

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It comes amid concern that the government's determination to deliver a "green" Brexit risks failing to recognise that farmers are primarily food producers and businesses in addition to their role as stewards of the countryside and the rural environment.

'Brilliant story'

The future for the cereals sector – including farm support, productivity and pesticides – was among the key topics for the two-day Cereals event, being held on Wednesday and Thursday (13-14 June) at Chrishall Grange, Duxford, near Cambridgeshire.

NFU combinable crops chairman Tom Bradshaw said: "The arable sector has a brilliant story to tell and never has there been a more important time to tell it. We all have a responsibility to show how we grow the crops which form the bedrock of the UK's food and drink sector."

Inviting politicians on farm could be an excellent way to build relationships with MPs, said Mr Bradshaw. It could also help press home the point that farmers provide the raw materials for a UK food and drink industry worth £112bn and employing nearly 4 million people.

Inform thinking

"Setting aside a couple of hours to host a visit during a busy time such as harvest when there's lots to see is definitely worthwhile," Mr Bradshaw said. "It will give you the opportunity to inform their thinking on key issues for the arable sector – and make it a day to remember."

Mr Bradshaw, who farms near Colchester, Essex, said the campaign goal was to promote a positive perception of the industry. "The future of agriculture and of the cereals sector in particular is in the hands of politicians. Being too busy to influence your MP is no excuse."

It was vital that the government and MPs recognised the economic value generated by farmers in addition to the environmental benefits provided. "The arable sector is the cornerstone of agriculture in the UK – producing livestock feed in addition to food and drink ingredients."

Without a viable arable sector, the UK would have to import more food. This would have a knock-on effect for the food and drink sector and would effectively export food and drink manufacturing to countries where costs and standards were often lower.

Campaign goals

A framework that ensures UK farmers can produce food on a level playing field. If competitors can produce grain to lower standards with a lower cost of production, British farmers could be unable to compete post-Brexit.

A science-based approach to regulating crop production – not political. Integrated pest management – including the targeted use of pesticides – can help drive a productive future. Crop production is complex and the government must recognise this.

A straightforward environmental land management scheme open to all farmers – and with fair rewards for environmental enhancement. A scheme that complements the practicalities of food production and supports productivity.

The ability to increase the use of productive arable land so it delivers both food and non-food goods and environmental services. Doing so will help ensure future generations can benefit from British agriculture.

Source: NFU

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JOURNAL : Farmers Weekly

From April 2019, all farming businesses will need to keep an electronic record of all business transactions on approved record-keeping software in order to be able to make VAT returns.

For businesses that do not already use accounting software, this will require investment in software, training to use it and a working internet connection.

There will be no changes to the way that VAT is calculated, or to deadlines for submitting returns online.

See also: Business Clinic: Tax implications of changing company structure

The changes are the first step in a longer-term plan to make all tax submissions electronic, but the rules will initially only apply to VAT, and therefore to businesses that have a turnover of more than £85,000.

It is anticipated that income and expenditure records will have to be submitted electronically by April 2020 for the calculation of income tax.

Figures from HMRC show there is a £12.6bn shortfall between the amount of VAT that is being collected and the estimate of what should be received and officials say this is part of a strategy that will help them narrow this gap by reducing record-keeping errors as well as tax evasion.

Chartered accountant Anne Cianchi, Making Tax Digital project consultant for Farmplan, highlighted five key facts businesses need to be aware of:

1. There will no longer be the option to use a paper-based record-keeping system to calculate the amount of VAT owed before submitting a paper return or manually entering calculations on the HMRC website. However, paper records can still be kept, providing information from the invoices is entered into the electronic system.
2. Farms using electronic spreadsheets, such as Microsoft Excel, will also have to invest in specialist accounting software or bridging software (a tool to transfer data from one place to another) as, after the change, they will be the only products capable of sending and receiving data from the website.
3. HMRC have already made it clear there will be no free software provided by them for users to make VAT submissions.
4. There are currently no software packages that have received HMRC approval for VAT submissions, as companies still have to submit the packages for testing, which will not be complete until later this year. As these changes have long been signalled, it is expected that many of the common accounting software providers such as Xero, QuickBooks, Sage and Farmplan will win approval.
5. Only one submission will be allowed for each individual VAT registration number. This means companies that keep multiple sets of accounts for different businesses - for example, a farm and a diversification enterprise – will need to combine them into one figure for a VAT return. HMRC have made it clear that if the figures are combined from different sources this needs to be done electronically, so bookkeepers should ensure any software they purchase is capable of doing this.

Are you concerned about the changes? Get in touch with the business desk at Farmers Weekly to highlight any issues that you think are failing to be addressed. Contact Andrew Meredith on andrew.meredith@reedbusiness.com

JOURNAL : Farmers Weekly

The government's pursuit of new trade deals in search of lower food prices seriously risks undermining UK farmers and domestic food quality, according to a new Brexit study.

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The report, published by the Green Alliance in partnership with the Food and Nature Task Force, examines how UK agriculture and trade policy will interact after the UK exits the European Union.

Currently, the UK imports about half of its food – and 70% of this comes from EU countries, where it is largely produced to the same environmental and welfare standards as within the UK.

See also: Trade minister grilled on agri-food post Brexit

But if the government fails to reach a good trade deal with the EU and instead unilaterally opens the UK to agricultural imports, food imports from countries outside the EU are likely to rise dramatically.

Non-EU imports of chicken could expand by 17 times, butter by 26 times and cheese by five times, the report states.

These changes pose significant risks to UK food and farming, including:

Lower standards for UK agriculture: Allowing low-standard imports to compete with the UK's high-standard farming will force UK farmers to lower their standards to remain competitive. It could result in them ploughing up field margins or using more pesticides and fertilisers to maximise yields, increasing water pollution.

Lower food standards: Food imported into the EU is four times more likely to exceed legal pesticide residue levels than food produced here.

A bigger environmental footprint: Beef is more than twice as expensive to produce in the UK as in Brazil, but the environmental effect of Brazilian beef is nearly three times higher, mainly due to deforestation. Importing more beef from Brazil would increase the environmental footprint of UK food.

To avoid these risks, the authors say the government must develop a trade policy that supports high-quality food and environment standards – and that all imports should meet at least the same standards as UK-produced food.

'In the dark' on trade

Commenting on the report, NFU president Minette Batters said the country “remains in the dark about what the government's overarching approach to trade will be”.

She added: “We still await a convincing explanation as to how the tension between protecting our own high standards of production and pursuing a cheap food trade policy will be resolved.”

JOURNAL : Farmers Weekly

British farmers could be sending beef to China by 2021 after the country lifted a 22-year ban on beef imports.

The move, which is likely to help carcass values by increasing demand for cuts not favoured by British consumers, is still subject to negotiations on market access, which are expected to take three years.

See also: Trading with China: Opportunities for livestock producers

China took in almost 700,000t of the meat last year, and is now the world's second-largest beef importer after the US.

As recently as 2010 it took in just 23,000t, but consumer demand is soaring for the meat, seen as a leaner, healthier alternative to pork.

Termination of the UK ban, which was put in place at the time of the BSE crisis, comes after a successful inspection visit in April 2018 by Chinese officials.

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Last year, Chinese consumers purchased more than £560m worth of British food and drink and the AHDB suggests that beef could add £250m of additional value in the first five years of trading.

Phil Hadley, AHDB international market development director, said he was delighted with the lifting of the ban. He drew a parallel with British exports of pork to China, which began in 2012 and had grown to a £74m market just four years later.

"Today's news follows years of collaboration between the AHDB, government and industry to make this a reality and we now look forward to seeing UK beef exported to the country for the first time in over 20 years," he said.

"We will now begin the work on the export protocols and approvals to allow commercial shipments to begin."

JOURNAL : Farmers Weekly

All the money spent on the CAP in England should be transferred to a new "public money for public goods" scheme in England – and possibly more, if farmers are to be incentivised to take part.

That is one of the key demands from the CLA, which has issued its detailed proposals for a Land Management Contract (LMC) to replace the Basic Payments Scheme following a post-Brexit transition.

See also: Gove unveils clampdown on farm pollution

The LMC concept was first mooted by the CLA in July last year. The idea is to give farmers a menu of ways they can manage land to deliver public benefits.

They will effectively sign a contract with government, and receive payments based on what they contribute, rather than the amount of land they own.

These ideas have now been fleshed out in a report from the CLA called The Land Management Contract – Design and Delivery in England, which it describes as "positive, progressive and pragmatic".

The LMC should not be the only tool, says the CLA, but should be one part of a wider policy "to boost profitable farming and forestry through improved productivity, competitiveness and resilience within a thriving rural economy".

But a new contract with government should also be used to deliver things such as clean water, carbon storage, enhanced public access, biodiversity, heritage and sustainable farming practices.

Proper funding

The paper emphasises that, while a new public goods scheme based on LMCs would present significant opportunities for environmental improvement, "these benefits will only be delivered if the new scheme attracts farmers and land managers by making good business sense".

"This will require the government to commit to transferring, over time, at least the current CAP spend into the new public goods scheme, to ensure sufficient incentive."

In England, the spend under the CAP is £2.2bn/year.

"For a long time, the CLA has advocated a policy that incentivises land managers to deliver public goods like creating new habitats for wildlife, action to improve soil quality and delivering high standards of animal welfare," said CLA president Tim Breitmeyer.

"This policy will succeed if it sits alongside a clear plan for supporting profitable food production, through a transition period and for the long term.

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“This means sufficient investment into the scheme, whilst avoiding unnecessary complexities and burdensome red tape. It also means long-term guaranteed payments, so that farm businesses can have the certainty that is crucial in planning for a resilient future.”

What the Land Management Contract looks like

The CLA sets out four key elements:

A universal LMC – available to all, with a menu of options to choose from, with payments based on a points system

A universal capital LMC – one-off payments for infrastructure improvements that deliver public benefits

An enhanced LMC – to encourage more complex land management, with collaboration. This would be open to tender and involves one-off and ongoing payments

Landscape scales restoration projects – aimed at improving large areas of degraded landscape

<https://infogram.com/copy-land-manageent-contracts-1h9j6qm3mlwv4gz>

JOURNAL : Farmers Weekly

The government has been cautioned against making major changes to the inheritance tax (IHT) system on the ground it could lead to major upheaval for farm businesses.

But the Country Land and Business Association has called for small changes to the administration and interpretation of inheritance rules – in particular asking for IHT relief to be available to farmers and landowners who have diversified into furnished holiday lets.

The demands appear in the association’s official response to a review of the IHT framework being carried out by the Office of Tax Simplification.

See also: Inheritance tax review forces succession plan changes

The main points the CLA makes are:

The current IHT reliefs of agricultural property relief (APR) and business property relief (BPR) are vitally important to the agricultural industry so working farms do not have to be broken up following a death.

Farmers are already facing significant change through the replacement of the CAP with a new domestic agricultural policy and major changes to the inheritance regime at this time of uncertainty will make it impossible for individual farming businesses to plan.

The deadline for settling any IHT liability (currently six months after death) should be realigned so it is the same as the deadline for submitting the relevant IHT paper work (12 months after death).

Furnished holiday lets are not considered as trading for IHT purpose, even though they are deemed a trade for income tax and capital gains purposes. This is not helpful when many farming businesses have diversified into the tourism sector to build non-agricultural income streams.

Relief from IHT should be available for any business that undertakes economic activities in order to support diversification.

If IHT relief is not available to anyone letting out land then the availability for land for tenant farmers could disappear as landowners take ground in-**hand**. All let land should qualify for 100% relief (currently pre-1995 AHA land is granted a 50% rate and farm business tenancies get 100% relief).

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CLA president Tim Breitmeyer said: "Brexit will bring significant and fundamental change for many land-based businesses across the countryside. In order to respond, many will need to invest to increase profitability, productivity and accelerate growth.

"This includes more farm businesses seeking new income streams from activities like tourism that sit alongside their core farming business. It is important those who do this are not penalised by current inheritance tax rules.

"Also, as government policy clearly identifies a switch to encouraging more public good activities on rural land as a core policy objective, it must ensure landowners who respond do not get penalised by the inheritance tax system.

"For example, land dedicated to environmental schemes must benefit from the same reliefs as agricultural land."

JOURNAL : Farmers Weekly

Claas has added smaller models to its Volto tedder and Liner rake ranges, making them suitable for farms still keen to run their own machinery and maintain control over part of their silage and haymaking.

The new four-rotor Volto 55 has a working width of 5.2m and can spread two swaths from a 3m mower. Its Max Spread system uses tines angled by 29deg to produce a longer sweep, collect more crop and encourage the material to flow between the rotors in a straight line to reduce crop damage.

Claas says the end result of this is a wider and more even spread pattern with fewer lumps and quicker drying.

The drive system incorporates a finger clutch at the pivot points that allows the arms to be folded hydraulically by up to 180deg for transport.

Each of the 1.5m diameter rotors is fitted with six 10.5mm tines and the spreading angle can be adjusted by between 12deg and 16deg without needing tools.

The starting price is £7,610 and options include a guide wheel and edge-spreading guard.

See also: One-pass Wecan reseeders reduces workload for Devon contractors

Elsewhere, the new single-rotor Liner 320 completes the company's range of compact rakes and has a working width of 3.2m.

As with larger Liner models, the rotor drive is completely sealed and continuously lubricated. The rotor is fitted with eight tine arms, each with three 9mm diameter spring tines that are clamped in place using a cotter pin.

Working height is adjusted using a lockable hand crank and, as standard, it's carried on a single axle fitted with 16/6.5-8 tyres. A tandem axle is available as an option.

JOURNAL : Farmers Weekly

German manufacturer Claas has introduced a free monitoring systems within its Telematics software.

The new remote service function will allow dealers to remotely monitor machines, analyse error messages and book in maintenance intervals to avoid delays, we're told.

See also: Contractor tackles logistics with workforce management tech

Launched in time for this year's cereal harvest, the service is available on all Lexion and Tucano combines, Jaguar foragers and large Xerion and Axion tractors built since October 2017.

The service is free, but still requires the customer's permission to ignite the software and can be functional for the first five years of the machine's life.

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JOURNAL : Farmers Weekly

A County tractor, dating to 1981, has sold at an auction for a record £94,500.

East Anglian-based auctioneer Cheffins said the sale of the Ford County 1474 Long Nose had broken the record for the highest price paid for a classic tractor in the UK.

The tractor had been expected to fetch between £60,000 and £70,000.

See also: Ultimate guide to buying a tractor 2018

It was sold as part of a landmark auction of classic Ford and Fordson tractors on behalf of well-known enthusiast Paul Cable and was purchased by an Irish collector.

The Paul Cable collection went under the hammer on Saturday 12 May, near Potters Bar, Hertfordshire.

Following a 50-year career in farming, Mr Cable decided to retire and sell his collection, creating one of the most significant on-site sales for machinery of this type for many years.

The sale comprised 38 sought-after Ford classic tractors and piles of implements and spares.

Rare examples

Amassed over 14 years, many of the tractors on offer were some of the rarest examples of their type to have hit the market, including uncommon Fordson County derivatives such as the Super-4, Super-6 and a 1957 Four Drive.

The second-highest-value tractor on offer on the day was a County 1184 dating back to 1981, which sold for £56,700 to a farmer from Lincolnshire.

A 1961 Doe Triple-D sold for £44,100 and was purchased by a buyer from Scotland. Similarly, a low-houred 1979 County 1174, which operated at Stansted Airport, sold for £43,050, more than double its lower estimate of £20,000. It headed to Ireland.

"The prices achieved at this astonishing auction far exceeded our expectations," said Cheffins chairman Bill King.

"With a huge crowd of enthusiasts from throughout the UK and particularly Ireland, there was strong bidding throughout, with several record prices being achieved."

JOURNAL : Farmers Weekly

Bepco Group, an online supplier of parts and accessories for tractors and machinery, is introducing a range of combine parts to run alongside its current product selection.

The range covers more than 1,000 replacement parts suitable for Claas Lexion, John Deere's CT and CTS series and New Holland CR and CX combines.

These are part of a wider range of more than 23,000 **harvesting** parts stocked in warehouses across five countries available with next-day delivery.

See also: Searchable online parts store slashes time and effort

Parts included in the range are various shafts, fingers, knife heads, sprockets, concaves, sieves, rasp bars, knotters and guides.

More than 30% of the range is produced at Bepco's new production facility in Poland where each part is manufactured in the same material as the original with all dimensions quality tested, we're told.

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JOURNAL : Farmers Weekly

The first few hours of a calf's life determine how that animal will go on to perform throughout its lifetime.

Calving by two years old is now deemed a prerequisite on dairy farms, but dairy heifers that fail to grow adequately won't meet this all-important target.

Independent nutritionist Hefin Richards says, "Until she's a cow, she is a cost. So we have to bear in mind how quickly we can realistically get to that point. In the UK as an industry we are calving at 28-29 months, so there's huge scope for bringing this down. Heifers that calve by 24 months are cheaper to rear and produce more milk throughout their lifetime".

Below, we summarise the guidance on how heifer calves should be fed in the first few hours, weeks and months of life, up until weaning, to ensure they hit vital targets.

Colostrum management

Choosing a powder

Feeding the calf up to weaning

Targets

Milk mixing protocols

Supplementary feeding advice

Colostrum management

Colostrum is a true "superfood" and if fed correctly, it can provide the calf with immunity to fight off disease challenges.

However, calf rearers have a short window to ensure antibodies are absorbed to their full potential, said Mr O'Sullivan. He explained how much should be fed and how quickly:

Quantity: 10% of bodyweight.

Quickly: Three litres in the first three hours of life. The absorption of immunoglobulins drops significantly six hours after birth.

Quality: Measure colostrum with a refractometer. Aim for more than 22% on the Brix scale for Holsteins and more than 18% for Jerseys. At least 80% of your colostrum tested should be good quality. If it isn't, it could indicate problems with dry cow and transition management.

Cleanly: Bacterial count of less than 100,000 colony-forming unit (cfu)/ml. Total plate count and faecal coliforms below 10,000 cfu/ml. If it doesn't meet cleanliness standards, absorption rates can drop by 50%.

Safely: Colostrum, if frozen, should be thawed at no more than 80C for 15 minutes. A higher temperature will denature the antibodies.

Quantify: Bloods can be taken in the first week of life to check the volume of colostrum antibodies that have been absorbed into the calf's bloodstream. Ask your vet to take some samples and monitor the results.

Choosing a milk replacer – what to look for

Skim or whey-based powders?

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Skimmed milk powders are typically about 80% casein and 20% whey. The casein forms a clot in the abomasum and is digested like whole milk – slowly over time.

In comparison, whey-based milk powders are digested much more quickly and in the absence of casein, do not form a clot. They are a by-product of cheese production.

Traditional thinking was that skim was “gold standard”, but we’ve moved on from this, said Mr Richards.

“High-quality whey-based powders perform very well, and may encourage earlier dry feed intake.”

What to look for on the label

Protein: Protein levels must support accelerated growth and tissue development in dairy calves in early life. Proteins should be milk-based for the best performance. Beef calves can be fed lower levels of protein to support more flesh than frame growth. Required level: 20-27%

Fat and oil: These will generally be made up of vegetable fats such as soya bean, palm oil and coconut. Too high a level of vegetable fats will increase the risk of scour. Required level: 16-20%

Fibre: This is a good indicator of the protein quality. Required level: Products that contain more than 0.15% contain higher milk protein. More than 0.2% means they are more heavily weighted in lower-quality plant protein sources.

Ash: Indicates the overall level of minerals. Required level: Less than 8%.

Top tips: What to check

Is the calf milk replacer you chose backed up with research and published data?

Has it been manufactured to a high standard?

Will it be consistent? Each batch must be formulated in the same way.

Is it palatable and do calves drink it well?

Feeding the calf up to weaning

What quantities to feed up to weaning?

To obtain daily liveweight gains of 0.75-1kg, calves will require a minimum of 900g of milk powder daily. Below is an example guide of how CMR should be fed from birth to weaning.

Feeding rates

Days 1-3

Days 4-7

Day 7

Week 10

Week 11

Week 12

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Feed requirements (litres) fed twice daily

4 litres of colostrum

Build up to at least 5 litres by day 5

6 litres

OAD

OAD

Weaned

Every 1C drop in temperature below 5C requires 2% more milk replacer. Have a min/max thermometer in the calf shed to monitor the temperature.

Targets

Weaning

Calves should be at least double their birthweight

Calving

Heifers should be 90% of mature weight

22-24 months

Target age at first calving

226

Calves that grew at 100g extra produced this much extra milk (kg) in their first lactation, according to a study by Alex Bach from the Department of Ruminant Production IRTA in Spain

70

The monthly cost in £ of delaying age at first calving

Milk-mixing protocols

1. Add half of the water to the bucket. Water should be 40C maximum.
2. Weigh the powder using a scale and a scoop. Remember milk and water combined should make 1 litre. For example, if feeding 900g daily, 150g of powder should be added to 0.85 litres to make up one litre.
3. Add the powder to the water and mix thoroughly using a whisk.
4. Add the remaining water and mix once again.

Supplementary feeding

Feeding starter nuts

Feed a 20% protein product based on high-quality protein, for example soya/protected soya/distillers' grains rather than wheat feed and sunflower.

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Provide fibre ad-lib along with chopped straw (2cm) and ensure there is plenty so calves aren't forced to eat bedding and consume pathogens.

Water: Ensure it is clean and there is plenty. Typically, a calf will consume 4 litres of water for every 1kg of starter feed eaten.

Sponsors' message

Thanks to Zoetis, Volac and XL Vets, whose sponsorship made it possible for us to run the Rethinking Cattle Performance workshop. Farmers Weekly had full editorial control of this report.

Zoetis, Volac and XL Vets are committed to supporting UK cattle farmers in running enterprises that produce healthier, more productive animals.

Part of this commitment means working with organisations such as Farmers Weekly on initiatives such as the Rethinking Cattle Performance campaign, to offer farmers the opportunity to learn from experts and their peers about the best ways to produce cattle, and particularly calves, as efficiently as possible.

JOURNAL : Farmers Weekly

The Scottish Land Commission is developing proposals to give local authorities compulsory sale powers for derelict buildings and vacant land.

The commission says the compulsory sale orders (CSOs) will enable councils in Scotland to take over abandoned buildings and small plots of land and sell them by public auction, to bring them back into productive use.

According to statistics published by the Scottish government, there is 12,435ha of vacant or derelict land in the country, and the land commission wants to make better use of it.

See also: Scottish land reform – what farmers need to know

Hamish Trench, chief executive of the Scottish Land Commission, said: "If we want Scotland's land to become more productive, efficient and equitable, we must consider tools and mechanisms such as CSOs to address the problem of vacant and derelict land."

The land commission, established under the 2016 Land Reform (Scotland) Act, will consult publicly on its proposals, before they are considered by the Scottish government.

The proposals will describe the purpose of the powers, how they might operate, and the conditions under which they could be triggered, and fully comply with the European Convention of Human Rights.

Turning 'eyesores' into useful sites

Scottish Land Commission policy officer Kathie Pollard says the sites in question are often seen as an eyesore, and can be victim to vandalism.

"A local authority that decides a vacant site could be put into an active use because it is in the best interest of the wider community, should be empowered to do so," Ms Pollard said.

"There are plenty of questions around how a CSO would work in practice and other complexities, which are currently being teased out in robust discussion and research."

The introduction of powers for CSOs was one of the 62 recommendations of the Land Reform Review Group in 2014. It was one of nine recommendations directly relating to urban land assembly, housing and regeneration.

JOURNAL : Farmers Weekly

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UK dairy processor, Muller has increased its standard litre by 1.25p/litre from 1 July.

The price rise means the 700 Muller Direct producers will receive 28p/litre for milk with a constituent content of 4% butterfat and 3.3% protein.

See also: Dairy sector celebrates hitting host of green targets

Strengthening dairy wholesale markets drove the change, which is the processor's second consecutive upward price movement following a 0.75p/litre increase in June.

"Market returns are continuing to improve after a challenging period, and we are pleased to reflect this in higher milk prices, said Muller milk supply director, Rob Hutchison.

<https://infogram.com/muller-july-milk-price-1h984wnovodd4p3>

Mr Hutchison added despite global market volatility showing no signs of abating, Muller producers were embracing tools to help insulate themselves against the ups and downs of dairy markets.

"In practical terms our farmers now have the means by which they can continue to benefit from upsides in the farmgate milk market but they are now far better protected from the downturns thanks to innovations such as the Muller Direct fixed price contract and the futures contract option.

"Going forward, we intend to continue to develop innovative solutions which support our supply chain."

Expert Analysis: Peter Meehan at INTL FCStone

European Dairy commodity futures prices continued their march higher over the past couple of weeks.

Strong demand and lower than anticipated milk collections across the EU throughout the spring-period are two of the drivers behind the price increases, despite improved milk fat and protein content for most of Europe's big milk producers offsetting the reduced liquid milk collections.

The latest milk collection numbers for April are showing New Zealand, the US and Australia all saw increases compared with last year.

Spot European butter prices have now seen eight consecutive weeks of increases, moving up by 24% in that period.

Spot skim-milk powder (SMP) prices are also heading higher, posting seven weeks of gains on the bounce, up 19% in that period. SMP prices have remained firm on the back of very strong demand, with EU SMP exports for January-March up 8% on last year while SMP prices were unfazed by the EU Commission's sale of 42,000t of intervention stocks last week.

With average UK farmgate milk prices posting four consecutive months of declines between December and March, the commodity price strength over recent weeks suggests farmgate milk prices may have bottomed-out, with milk price increases announced over the past seven days.

JOURNAL : Farmers Weekly

The UK's oldest cheddar maker, Barber's has held its milk price for July at 28.87p/litre for manufacturing litres.

Improving butter and skim milk powder values mean the processor's 150 suppliers will receive an increase for litres above the threshold for May at 31.08p/litre.

See also: Dairy markets rise despite peak production month

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A resurgent actual milk price equivalent (AMPE), a measure of butter and skim markets, means Barber's farmers will enjoy a 4.28p/litre increase on the month for litres 4% above their base milk volumes for May.

The move means Barber's has held its milk price in eight of the past 13 months, providing its producers with stability despite the volatility inherent in the dairy markets.

<https://infogram.com/barbers-milk-price-1h0r6r80lqlw4ek>

Meadow Foods deal

Meadow Foods has confirmed its fixed price deal has been facilitated by a long-term deal with UK food manufacturer, Premier Foods.

Each of Meadow Foods' 650 producers will automatically see about 2.6% of production between April 2017 and March 2018 locked into a two-year deal at 28p/litre between 1 July 2018 and 30 June 2020.

Producers who wish to opt out of the deal must notify the company by 8 June 2018.

Market Analysis: Peter Meehan at INTL FCStone

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JOURNAL : Farmers Weekly

A district council in the South West could face legal action from a local town council over its plans to sell the county's last traditional cattle market to a budget supermarket chain.

North Dorset District Council has agreed to sell Shaftesbury Cattle Market to a leading supermarket operator – believed to be Lidl – after jointly marketing it with leaseholder Southern Counties Auctioneers.

The district council has agreed to share the proceeds of the sale, said to be £1.9m, with the auctioneers in exchange for an early exit from the lease.

See also: Selling primestock – is auction or abattoir best?

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But the plan has proved unpopular with residents and community groups.

Shaftesbury Town Council is seeking advice to explore the possibility of taking legal action to stop the controversial sale, allocating £10,000 for the matter.

Mike Madgewick, chairman of the Shaftesbury Civic Society, said the sale progressed without residents or stakeholders being consulted, and he is concerned that proceeds from the sale will not necessarily stay within or benefit the town.

Market in decline

A livestock market has been held in Shaftesbury since the 19th century and the existing market can trace its history back to 1902.

However, the district council reports that the cattle market is in decline, with store cattle sales now being held fortnightly rather than weekly.

Councillor Michael Roake, portfolio holder for environment at North Dorset District Council, said the sale was a positive result for Shaftesbury and would give people a much-needed choice of supermarkets within the town, rather than travelling to other areas.

"We received a number of strong bids for the site, which shows the appeal of the town and this prime location," Mr Roake said.

"Our thanks go out to Southern Counties Auctioneers who have maintained the site for more than 60 years and have been a major contributor to the north Dorset economy."

JOURNAL : Farmers Weekly

Healthy and efficient animals are a must for Neil and Jocelyn Rendall, who farm one of the most remote and smallest Orkney islands.

The Isle of Papa Westray ("Papay"), one of the most northerly Orkney islands, is 20 miles by ferry or light aircraft from Kirkwall, Orkney's capital on the main island.

Following the closure of the Orkney abattoir, all traded livestock – for finishing or slaughter – must travel to the mainland at a cost of £12.80 a head.

See also: How a large Luing beef herd is managed on the Scottish Isles

Unavoidable transport costs to and from Orkney also inflate the prices of purchased farm inputs and eat into the returns from farm outputs.

To counter this double-barrel financial negative, Orkney farmers have traditionally focused on producing premium-earning stock as efficiently as possible.

Farm facts: Holland Farm

162ha, all grass

78 breeding Aberdeen Angus females

Herd includes 22 pedigree Micklegarth cows

Spring and autumn calving

Heifers calve at two

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130 ewes including 50 native Papay ewes

Farm includes a self-catering cottage

Third generation farmers at Holland Farm

Two times winner of Scotbeef's Aberdeen Angus Beef Finishing competition which assesses beef quality, animal welfare, stockmanship and farm management. Winner receives £2,000 and an Aberdeen Angus bull

The cattle enterprise

The main enterprise at Holland Farm is a low-input, 78-cow herd of pure Aberdeen Angus cattle.

Cattle are housed from late October until early May. With no grain grown on Papay to produce straw, cubicles are bedded with rubber mats for stock comfort.

Forage – either grazed grass or silage with minerals – is the main year-round diet, although autumn calvers receive a “barley boost”.

Spring calvers calve outdoors in May and June and autumn calvers in September and October.

Calves, when housed, are fed ad-lib silage, enhanced by 1.6kg of barley and 0.5kg soya, which continues after weaning (January) until turnout.

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Grazing

As with many islands, nature is in control on Papay, and nature decrees that the only realistic “crop” is grass.

Holland Farm, with its 360deg sea view, is all grass. White clover-rich leys, down for approximately 10 years, can withstand the wind and salt spray. Nine miles of dry stone walls provide field shelter for stock on the windy, treeless and exposed island.

One benefit is that very little fertiliser is required to sustain grass growth on the naturally fertile Papay soils.

In the first week of April, two units/acre (2cwt/acre) of 2.1.1 is applied to about 16ha of grazing for freshly lambed ewes and some years, when deemed necessary, the silage ground receives the same.

Health status

The Rendalls believe that to be productive, stock must be healthy.

Their herd was one of the first to join the Orkney Livestock Association (OLA) bovine viral diarrhoea (BVD) eradication scheme, launched in 2001. Accredited BVD-clear since 2002, the Rendalls' herd is also at Johnes' risk level 1.

“All four cattle farms on Papay are clear of BVD,” says Mr Rendall, who employs one part-time worker - 29-year-old Sam Mercer.

“This gives us the confidence to rely on biosecurity, without vaccination.

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"The only cattle we buy in is the occasional stock bull, which is thoroughly tested and isolated for up to four weeks before joining the herd."

Another reason why good health is key is again the farm's remoteness. The vet needs to fly from Kirkwall to get to the farm and one of the Rendalls' fields acts as the Papay "airport" runway.

"Other than for routine visits, fortunately we rarely need a vet," he adds.

Since 2001, OLA has almost cleared the islands of BVD, with more than 95% of Orkney herds (beef and dairy) currently eligible for accreditation. Until a breakdown in March 2018, no BVD had been found in Orkney for more than 18 months.

Sale of stock

Previously many of the Holland Farm cattle were finished off grass and sold to Scotbeef at Bridge of Allan, near Stirling. Scotbeef supplies Aberdeen Angus beef to some of Britain's main retailers, including Marks & Spencer.

Despite farming on the very edge of Britain, the couple are producing top-quality stock and have won Scotbeef's prestigious Aberdeen Angus Beef Finishing competition twice, in 2007 and 2011.

But now all stock is sold as stores, between 15-17 months, through Orkney Auction Market in Kirkwall to capitalise on the excellent trade, which is yielding a better premium than finishing stock, they say.

With no roll-on, roll-off ferry facility on Papay, all cargo too heavy to carry is craned on to the ferry, which calls on Tuesdays and Fridays.

The Rendalls' cattle travel to the ferry in the farm livestock trailer, which is then carefully hoisted from the pier to the ferry deck. The cattle remain in this trailer until unloaded in Kirkwall mart. The trailer, crammed full of straw to avoid freight costs, returns on the next Papay ferry.

All traded Orkney auction cattle, plus finished stock direct from farm, travel to the livestock lairage at Kirkwall ferry terminal, where they are loaded for their journey to Aberdeen into specifically designed transport trailers.

These trailers provide more comfort for the travelling bovines than most human commuter trains. Facilities include feed, water, inspection ladders and lights, plus a "hospital" pen.

Currently there are no livestock slaughter facilities in Orkney. A consortium of Orkney butchers hope that by early 2019, they will have new premises where they will be able to slaughter and process approximately 20 cattle, 25 lambs and 15 pigs a week.

Papa Westray and Orkney

Measures 4.5 miles by ¼ mile and its highest point is just 157ft

Total land area is 1,000ha

It has four farmers and a population of just 70

Beef cattle are the cornerstone of the Orkney economy. There are currently 30,000 beef cows farmed on 93,000ha – regarded as the densest population of beef cows in Europe

JOURNAL : Farmers Weekly

Thieves behind a countryside crimewave are stealing Land Rover Defenders and luxury 4x4 vehicles to order, claims rural insurer NFU Mutual.

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Latest figures from the insurance company reveal claims for costs resulting from stolen Defender vehicles have risen 14% since the last car rolled off the production line in early 2016.

See also: Land Rover in anti-theft video broken up by thieves

Farmers are finding the iconic vehicles stripped of parts such as bonnets and doors, or stolen altogether as global demand increases, it said.

Thefts of executive cars and luxury 4x4s have also spiked with the insurer reporting a significant rise in the cost of Range Rover theft in the past year.

Shipped abroad

NFU Mutual, which works with the National Vehicle Intelligence Service (NaVCIS), has traced stolen Range Rovers worth more than £75,000 each as far afield as Africa and the Far East.

One of the most recent vehicles to be repatriated by NFU Mutual was a Range Rover Sport insured by the company and worth more than £60,000.

It was seized in Antwerp following an operation co-ordinated by NFU Mutual and NaVCIS.

Another recovery, of two Range Rovers covered with mattresses and worth more than £100,000, was made from a shipping container in Felixstowe.

NFU Mutual agricultural vehicle specialist Clive Harris said thieves were deploying a range of tactics to feed demand for 4 x4s from organised criminal gangs operating around the world.

Farms hardest hit

"While insurance can cover the cost of theft, it does not account for the inconvenience and business interruption experienced," he said.

"People in rural areas are feeling increasingly vulnerable and farms, which rely on 4x4s for mobility as part their business, are left particularly hard hit."

NFU data suggests the region with the highest cost of Land Rover Defender thefts last year was the Midlands, followed by the North East and South East.

Mr Harris said: "We're urging owners to ensure they have adequate security measures in place."

This could range from using aftermarket mechanical immobilisers such as a steering wheel locks to trackers and Faraday box solutions, which block out signals.

Top tips for securing vehicles

Classic Land Rover Defender

Fit a mechanical immobiliser such as an industry accredited steering wheel or pedal lock

Fit an accredited alarm for added security and consider adding a tracking or locating device

Consider marking component parts using a forensic marking solution or system

Keep the vehicle in a lockable building or park in well-lit areas

Have the vehicle identification number etched on windows

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Consider fitting a hidden battery isolation or a fuel cut-off switch

Take photographs of features, modifications, damage or repairs which could aid identification

Ensure any valuables are removed from the vehicle

Modern 4x4s

Keep electronic keys in a Faraday packet or box at night

Don't keep car keys where they can be accessed through a letterbox or window

Don't rely on electronic security – fit a steering wheel or pedal lock

Fit an alarm for added security and consider adding a tracking device

An additional locating device will assist with early detection and potential recovery

Keep the vehicle in a lockable building or park in well-lit areas, which are overlooked

Ensure any valuables are removed from the vehicle

(Source: NFU Mutual)

JOURNAL : Farmers Weekly

As June arrives, the disease and pest threats continue to occupy our agronomists' minds with concerns of brown rust growing in the South.

Flea beetles are hammering linseed crops in the East and weed control is proving tricky in beans.

One rare bit of good news has been the recovery in barley in the South West, as warmer temperatures and rain arrived back in May.

South: Iain Richards

Agrii (Oxfordshire)

Brown rust is one of our key concerns as most wheats receive their flag leaf sprays.

Sticking to our T0 guns and maintaining robust T1s means we've yet to see significant signs of infection.

However, the worrying number of reports we're getting locally show the cold, late spring hasn't done the job we hoped it might.

With Agrii research showing about 70% of the main varieties in the ground at high risk from brown rust and the sheer amount of Crusoe being grown, we're not taking any chances here.

It's a disease we cannot afford to be chasing.

See also: T3 spray tips for battling ear blight in wheat

So, Solatenol (benzovindiflupyr) is our T2 SDHI of choice wherever we have any varietal concerns.

Supporting this with an epoxiconazole/metconazole co-formulation and a multisite protectant should give us the peace of mind we need in our septoria management as well.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Dry weather has kept infections nicely confined to the base of most crops so far. However, we know how rapidly things can change especially in light of forecast rainfall.

Green leaf area

Crop performance this season will be all about working hard on maintaining green leaf area to compensate for the very slow start to spring growth.

This will be particularly important for crops on heavier ground, which didn't get their nitrogen nearly as early as we'd have liked.

Many of these are decidedly thin when you get into them, having lost many tillers, making the contribution of their lower leaves to grain fill more vital than ever.

Maximising grains/ear will be crucial too. So we're including more magnesium in our T2s to encourage both photosynthesis and N use. With the weather as dry as it has been, minimising stress in the run-up to flowering is key.

We will also be keeping a very close eye on orange blossom midge levels. Reports suggest adult midges are emerging at about the same time as crops are susceptible for the first time in recent years.

There's a brutally short control window, many varieties aren't resistant and our chemical armoury is limited to say the least.

East: Sean Sparling

AICC/SAS Agronomy (Lincolnshire)

T2 fungicides are now being applied across winter wheats and barleys and judging by ear size, there's potential for a good **harvest**.

However, with noticeably shorter crops and late spring cereal drillings, straw may be in short supply. The implications for livestock farmers are concerning – isn't it time they took priority over power stations?

Septoria has been held back by T1s, but lurks in the base and remains the significant threat, although on Reflection wheat, yellow rust continues to frustrate. Mildew is widespread, but, where a prothioconazole-based T2 is used, the need for additional mildewicides reduces.

Blackgrass levels are low where crops were drilled late and robust pre-emergence herbicides were applied, despite few contact herbicide applications.

Most spring barley is receiving T1 fungicide/herbicide mixtures. Rhynchosporium and net blotch is always threatening alongside low levels of mildew and abiotic spotting.

Spring wheat woes

Overall, spring barley is lush and vigorous – more than can be said for some spring wheats, which have whined since the day they went in.

Oilseed rape is largely out of flower, but with the weather we have seen, protectant sclerotinia sprays have been vital.

Seed weevil numbers are moderate on headlands, but minimal within the field. Therefore, that situation is still being monitored.

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Winter beans display high levels of chocolate spot due to early season stress and initial bruchid beetle migration coincided with first pods being set.

Pea and bean weevil continue to assault both winter and spring beans as well as peas, but with warm soils and some welcome rain, crop growth is rapid and notching is being outgrown.

Flea beetles are hammering some linseed crops, but the sugar beet is growing almost as fast as the weeds. However, with near constant winds, it's proving a challenge to get the required fine quality sprays applied when required.

West: Stephen Harrison

AICC/Southwest Agronomy (Avon)

Thundery rain has eased drought stress on crops. I was concerned for the security of some heavy hybrid barley crops during the deluges, however, a walk around a few local fields shows that they are still standing.

Earlier in the spring, I bemoaned the state of barley on heavy wet soils. Their recovery, as temperatures improved and rain fell, has been dramatic. I am so pleased we did not succumb to the temptation to write off or redrill these fields.

Decision-making on poor crops is invariably tricky, as there is always a temptation to take no chances and destroy the evidence. The early Victorian naturalists had a saying: "What's shot is history, what's left a mystery."

Wheat is now approaching ear emergence. Disease is largely confined to leaf five with more susceptible varieties showing a little septoria on leaf four.

While disease is never welcome, this lower canopy infection combined with a clean leaf three suggests most of the T1 fungicides went where they were intended.

Mosaic virus

The only yellow rust prone variety we grow is Zulu, being resistant to soil-borne cereal mosaic virus. Despite a relatively low rust risk, spring spray misses in this variety have been taken out.

Our only other mosaic virus resistant varieties are Cordiale and Claire. Frequent questioning of plant breeders suggests there is little or no new material coming through.

On the subject of viruses, we are also seeing resistance breaking strains of barley yellow mosaic virus appearing. Varietal resistance to the virus is a single gene, so it is not surprising that other strains are infecting crops.

If you have unusual symptoms in winter barley I suggest you have the presence of virus confirmed or refuted by Fera. The virus is carried by a soil fungus, so care should be taken not to spread infected soil.

Of further concern in barley is the appearance of loose smut on crops grown from treated seed.

On the positive side with viruses, the barley yellow virus tolerant variety, Amistar, looks to be performing well in our second year of field-scale trials.

North: Andy Goulding

CAS/Hutchinsons (Cheshire)

A familiar tale of one extreme to the other: we started the year with an awful winter and early spring, but we are now leaving behind an exceedingly hot and dry May.

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The residing moisture is available for established autumn-sown and early sown spring combinable crops (of which there are few).

There doesn't look to be many lazy rooting spring crops, but none the less, a little flurry of rain has just kept everything establishing.

Wheat T2 is on the last leg of the run and crops are still all over the place, with the seasonal calendar unable to get things to an equilibrium due to the huge array of planting dates and poor early growing conditions.

We've gone from exceptionally high septoria pressure to low, and rates have been tuned accordingly.

Moisture for establishment is not an issue with potatoes that have been planted late, as it can be found around the seed tuber, and there's plenty of energy left in there yet.

Ridge moisture may reduce efficacy of the residual herbicides, which we so majorly rely on.

However, with little moisture in the outermost part of the ridge, weed emergence is also delayed.

Product selection and rate is going to be geared around the half-life of the active ingredient, as we strive for persistency for when the flushes come.

Weed challenge

Beans have also been subject to the same dilemma, with residual herbicides not achieving the desired control.

In instances where broad-leaved weeds will become competitive, post-emergence products are being used. Be mindful of the narrow application window and potential for herbicide damage – these are best applied during the cooler part of the day.

Despite mainly being late drilled, maize is mostly up and away, and looking good with no cold snap to hold it back.

Post-emergence herbicides are a little off yet, but I will be using other chemistry as terbuthylazine starts its phase out from the market.

JOURNAL : Farmers Weekly

The large swings in temperature and rainfall in recent weeks are taking their toll.

With memories of flooded fields still fresh in the mind, some crops are now showing signs of drought stress, partly due to their underdeveloped root systems.

The extremes in temperature have even led to crops bolting, with reports of spring beans flowering while only 4in tall.

See also: Crop Watch: Spray now to tackle septoria burden

Oilseed rape crops in the North, as well as winter barleys are struggling. The one glimmer of hope is spring barley, and growers are being advised to think of growth regulation to help stimulate rooting and tillering.

South: Kevin Knight

Zantra (Kent)

There has been a lot of weather fluctuations this May. Temperatures from high 20s down to frosts, 3in of rain in a 24-hour period with another 1in a couple of days later.

Now spring-drilled crops could do with a drop, but are enjoying some warmth after a week of cold, harsh northerlies.

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Fluctuations between these extremes have made some crops bolt and others sit still. With spring beans it's both – bolting to flowering while sitting at 4in tall (not helping them grow away from weevil pressure).

See also: Why growing triticale can help you earn more

Winter cereals look green, superficially clean and generally rather pleasing. They usually do in late May.

Where crops went in well and a reasonable programme was applied (despite the challenges), it is still easy to find septoria on leaf 4, and higher up where compromises or delays went further than they should have.

Stressed crops are showing increases in mildew activity, particularly on sandy areas where drought kicks in earlier.

Yellow rust has been kept in check thus far, but stripes on the odd leaf of Skyfall and Zulu influenced the T2s going on late/second wheats this week. Mine consisted of SDHI (Solatenol) plus a good dose of an azole, some chlorothalonil and a mildewicide.

With heavy rain washing nutrients away, I'm adding a broad-spectrum foliar feed where needed on current and subsequent passes through the crop.

Spring crops

Spring cereals are moving apace now, and close attention to early plant growth regulator and fungicide timing will be necessary.

With spring barley, front load your fungicide spend – get the big guns out early (SDHI + prothioconazole) to keep a clean crop, then you can apply a more economical top-up the second time around.

The warm weather has brought a few bruchid beetles out. It is too early to have much of an effect, as most winter beans are just developing pods on the bottom trusses. However, beware if you are chasing that attractive human consumption premium.

Potato planting is just finished, late, but generally went in well. We have had confirmed cases of blight in dumps in Kent over recent weeks and have hit Hutton periods this week, so where there is a potato canopy, it's being treated.

Fluazinam isn't having the desired effect on the EU37 strain, so my programmes will involve mancozeb and cymoxanil until the canopy gets moving rapidly. At that point we'll use more mobile actives such as propamocarb.

East: Marcus Mann

Frontier (Essex)

As the season begins to catch up, the flag leaf has emerged in winter wheat and T2s are under way. The wet weather in March and April has meant there is active Septoria tritici in many crops, with leaves 4 and 5 in susceptible varieties expressing significant visible symptoms.

With the importance of keeping the flag leaf clean, T2 sprays are being based on robust rates of SDHI and azole along with a multisite to prevent any resistance developing.

Yellow rust is also present within the more-susceptible varieties. The addition of a strobilurin will help add additional protection against rust as well as helping to retain green leaf.

Magnesium is the most important nutrient to apply with the T2, as the crops are beginning the period of maximum growth and biomass production. This will also enhance specific weight and protein levels in the grain for all quality wheat crops.

Rapid growth

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Spring cereals are racing through their growth stages and reaching their T1 timing. While plant growth regulators are not routine on spring barley, more is now being grown on heavier, more fertile soils for blackgrass control.

With the late drilling, shorter growing period and increased seed-bed nitrogen, this could result in poor rooting leading to poor tiller formation and retention. So manipulating the main apical dominance as well as stem strengthening should be considered, even if not applying a T1 fungicide on the less-disease-susceptible varieties.

Aphid numbers are currently low. However, AHDB/Rothamsted monitoring reports indicate the three main cereal aphids have been found in suction traps. Crops should be considered at risk of barley yellow dwarf virus until growth stage 31.

Black bean aphid has just begun to become active within pulse crops, so monitor as temperatures increase.

West: Giles Simpson

Pearce Seeds (Somerset)

What a difference a few weeks make. Crops that were drowning six weeks ago are now looking for a drink. I never thought I would say that. The recent dry spell we all wished for is now stressing crops that have poor root structure following the winter's wet weather.

The early-season wet conditions meant most of the crops received their fertiliser late. The winter barleys are now really showing this and are generally thin. I don't hold out much hope of them yielding well, although they are relatively free from disease.

The winter wheats are all over the place in growth stage. Many are now at T2, but I have some backward crops that are still only growth stage 33. This has made for a very taxing season so far.

There is plenty of septoria around and noticeably more where the T0 was omitted or T1 was late due to ground conditions. Siskin looks to be the best at the moment. Of all the late-drilled wheat, Anapolis looks as though it has survived the best and held on to tillers.

Spring barley

The spring crops have emerged very quickly and evenly. The spring barleys have received manganese and growth regulator. Very few weeds have emerged, so these will be dealt with when the fungicide goes on.

Most of the maize is now drilled and is emerging well. Some seed-beds were drying out very quickly and, hopefully, seed has been drilled into moisture. Some pre-emergence sprays have been put on, but in the past week there has been much debate about whether it's worth doing. Who knows what the next few weeks will bring?

I decided to go with just pendimethalin rather than a more expensive option just in case it stays dry. Some seed rates were lowered to allow for the fact that most maize was being drilled about a fortnight later than normal.

North: Patrick Stephenson

AICC (Yorkshire)

No two seasons are the same, and this one is certainly different, with huge swings in temperatures – often more than 20C movements in 24 hours. Crops have changed beyond all recognition and although much is aesthetic, it has made crop walking more rewarding.

Oilseed rape crops are a real mix. Some are flowering, some have finished, and some just started. None has really flushed that eye-watering bright yellow. It has been a real task to judge sclerotinia spray timings and even decide if the crop is going to flower.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I will be glad to shut the gate on OSR this year, as everything seems to have conspired to make the crop struggle and I fear the yield outlook is not good.

Similarly, winter barley on heavy land is a sorry sight, and any thoughts of copious straw yields to replenish stocks can be dismissed. Light land crops are more hopeful and all have now received their final fungicide, with chlorothalonil included to combat ramularia.

Spring barley is far more hopeful and despite the late drilling, emergence has been fast. Crops are now receiving herbicides and, depending on plant stand, some are receiving growth regulator to encourage tillering.

Although these crops will be very dependent on the weather, particularly rainfall, over the coming months, they have certainly started well.

Winter wheat crops have at long last picked up and are a rich, dark green, feeding off the reservoir of applied nitrogen. Unfortunately, many are best viewed at 55mph from the road.

Heavy land woes

Once again the heavy land is, in general, not a pretty sight and there certainly is no requirement for further growth regulation. Despite all the early spring rain, septoria is contained in the lower canopy.

Yellow rust is bubbling away and despite many varieties having theoretical good resistance, the rapid changes in strains means no variety can guaranteed resistance.

The recent rapid crop growth, with a new leaf appearing every week, means spray intervals will be short, with some crops receiving three fungicides in the space of six weeks.

At this point, I part company with many of my more learned colleagues, as with such tight spray timings I have no appetite for high SDHI rates and have moved to "appropriate" doses.

Winter beans are now flowering and will be due a chocolate spot spray very soon. Spring beans have emerged well on the whole and weed control is good, with the usual rape volunteers surviving.

These volunteers always cause a headache, with much debate about Basagran (bentazone) and its use. If there is a more frustrating herbicide than Basagran I have yet to meet it. Performance can range from good to "are you sure you put the chemical in?"

JOURNAL : Farmers Weekly

A lack of rainfall in recent weeks may have helped curb some disease threats such as potato blight in the North, but there are growing concerns on the impact of crop yields.

The vital grain-filling period is upon us and this week's heatwave is likely to see some crops wither away with many already stressed due to lack of rainfall. Spring barley in the South, in particular, is being hit hard.

Another concern for our agronomists is the poor blackgrass control in some fields, which will prompt a rethink on strategy for next season.

South: Iain Richards

Agrii (Oxfordshire)

Orange blossom midge proved just as troublesome as we feared it might. And along with brown rust in wheat and lack of moisture in spring barley, it remains a particular concern as we move towards what could be a promising harvest.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It's a good 15 years since we've had to treat such a large area for blossom midge and, with only pyrethroids in our armoury, we're now finding a worrying number of larvae in the ears of some crops.

See also: What the neonic seed treatment ban means for sugar beet

Acute midge problems meant some T3s went on slightly earlier than we'd have liked to avoid the need for separate sprays within barely a week. Fine for fusarium protection, this has left us with the challenge of keeping the many varieties at high risk of brown rust clean at a time we're forecast to get the hot, dry weather the disease loves.

Thankfully, our T2-T3 interval was well under three weeks in most cases. So continued activity from Solatenol (benzovindiflupyr) we used widely as our flag leaf SDHI on susceptible varieties should bolster our T3 azole combinations.

We're not planning to do so, but if brown rust comes in to any significant extent we won't hesitate to go back in with a T4. Especially for the later wheats that need to stay green for another four weeks.

We may have been cursing it back in April, but having more than enough moisture in the ground going into the summer has been a godsend. No rain worth mentioning for three weeks is leaving winter crops on the gravels looking stressed. However, it hasn't done most of our acreage much harm yet.

Spring barley woes

The same cannot, unfortunately, be said for our spring barleys. Where they went in well and got enough early nitrogen they're carrying a decent number of tillers.

While March drillings are averaging nearly 30 grains/ear, those that didn't go in until mid-April have less than 20 grains/ear. And they're all badly in need of a drink.

It definitely won't be a record spring barley year. Having said that, feed prices are firm and malting premiums are holding-up. So decent spring barleys will repay the effort put into creating them.

We've been very pleased with the grassweed control we've achieved this season but incredibly disappointed with the few cases in which a spring clean-up has been needed. This has underlined we no longer have any reliable fallback once winter crops are established – even where blackgrass levels are moderate.

East: Sean Sparling

AICC/SAS Agronomy (Lincolnshire)

Winter wheat and barley are now on the final push, though wet weather throughout flowering may yet cause us problems with fusarium ear blight, but ear and foliar disease levels still appear remarkably low. Crops are still standing too.

Blackgrass is an annoyance in a few too many fields and weed-wipers, mowers, sprayers and roguing gangs are a common sight on the wolds, heath and fen alike.

It may be a case of going back to basics this autumn with the emphasis on attention to detail – glyphosate for initial flushes, delayed drillings, quality seed-beds, rotations crucial, nerves of steel and vital targeted use of robust residuals – a combination of all these is crucial.

Spring barley and spring wheat are finished as far as fungicides go. Much higher levels of rhynchosporium, net blotch, abiotic spotting and ramularia are being seen, but no surprise thanks to the stresses of a late drilling season, snow, heatwaves, torrential downpours, hurricanes and frosts. The frosts caused high levels of blind grain sites in some areas.

Spring wheat

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Spring wheats look good, but may yet show the wisdom of “cuckoo wheat” folklore. Sugar beet is now at full cover in many fields with no disease, bugs, moths or leaf miners to report.

Peas and beans are flowering and podding well, however, downy mildew and botrytis are an issue due to the blighty conditions. Thankfully, the bug and beetle levels remain manageable – for now at least.

With Hutton periods occurring almost every day, potato blight programmes are necessarily robust and routine – seven day plans are in full force.

This season continues to frustrate. Two weeks ago, 83mm of rain fell in 95 minutes 12 miles away and I took just 0.2mm the same day and only 7mm this month.

Growers are desperate for rain and are irrigating beet and cereals in fields with cracks 3in across, while over-wetted neighbours gaze guiltily from just over their lush hedges.

North: Andy Goulding

CAS/Hutchinsons (Cheshire)

With only 28mm of rain in May and 6mm in June (at the time of writing) there are many combinable crops now starting to wither away. With a heatwave forecast there are likely to be many more casualties, especially those crops with shallower roots.

Many spring cereals have been under such stress they have skipped tillering with producing offspring as the only goal.

Soil texture differences within field are now obvious to spot with the sandier patches going off to a line.

We now lie in hope the forecast will change and crops will have some rain to help fill what grain sites are there.

This year seems one of those extremely rare occasions where the East's weather has swapped with the West's.

With no rain to wash granular fertiliser in, there have been many applications of amine nitrogen as a foliar spray.

This is now finding a firm place as a genuine part of a nutrition programme with its far superior, simple and safe uptake and excellent tank mix-ability.

Potato pressure

Blight pressure is low and as such there is no requirement for curative products or tight intervals at present. The problem we have faced, however, has been weed control. Even timed to the most favourable of application windows we have still had problems.

Cloddy seed-beds from a wet spring and bone dry ridges has led to the word Titus (rimsulfuron) cropping up all across town.

This is the last thing we want in current conditions in late-planted crops, but where not applied, I have heard of some particularly weedy scenarios competing hard with the crop.

Maize crops are also a mixed bag. Some had just about finished the flush of weeds and were about to close over the rows, which made herbicide timing difficult. In other crops that are struggling, you can still walk between the rows without too much resistance from brushing your legs on the leaves.

There have been many purpled and yellowed crops as they have struggled to extract nutrition from the soil so there has been plenty of foliar intervention including nutrition and biostimulants to help them on their delayed flight from the ground.

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JOURNAL : Farmers Weekly

A warmer than average May has seen crops motor through their growth stages and help reduce disease pressure north of the border.

Even after a strange spring, there are still some surprises being seen in crops, the most notable is higher levels of loose smut appearing in barley ears.

It is affecting a range of crops, including those that had a seed treatment, and agronomists suggest further investigations are needed to reveal the causes.

North: Mary Munro

AICC/Strutt & Parker (Perthshire)

The warm dry weather of the past four weeks has kept disease at bay in Scotland.

Our most troublesome diseases are those that like the wet, and this season there is a marked lack of septoria in wheat, which is a joy for all concerned.

Most crops are at or near ear emergence this week which is not far off the norm. I have tried some Elatus Era (benzovindiflupyr + prothioconazole) this year, but there may not be much pressure on it to compare with other T2 products – we will see what the rest of the season brings.

See also: How to manage disease in sugar beet crops

Having skipped T0 without ill effect, I am not planning to omit any further treatments, and the risk of heavy localised showers means a degree of septoria protection has to be maintained at T3. However, I may tinker slightly with the rates and not go over the top.

Pod-fill

Winter barley and oilseed rape are suddenly round the corner and into grain- and pod-fill. The oilseed rape had a dry flowering period and with virtually all petals off, the disease risk is lower here too.

It is a difficult crop to predict – crops look great this season, but appearances can often be deceptive. There seem to be plenty of pods, the question is how many seeds will they hold?

Spring barleys have motored on undeterred since sowing. They have tillered out well, and again the usual rhynchosporium and mildew challenges have not materialised so far.

I have one or two crops earmarked for a single spray fungicide strategy, while the less marginal ones will have a restrained T1 and a Siltra (bixafen + prothioconazole) plus chlorothalonil.

West: Antony Wade

Hillhampton Technical Services (Herefordshire/Shropshire)

“Motor in May” has never been truer than this season with all crops rushing through their growth stages in a warmer than average May.

As always nature has a phenomenal ability of making up for lost time to ensure crops are flowering around the time of the summer solstice.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

At present, with ears emerging on forward crops, disease control looks to be holding up but, with recent heavy rain from thunderstorms, it is too early to assess septoria control strategies as this will not really be revealed until the third week in June at the earliest.

My T3 spend will be modest as it is difficult to justify a large spend for ear disease when you can only expect moderate control and the timing is difficult to get right, especially if we have showers around flowering.

Winter barley crops romped through later growth stages making late plant growth regulator applications difficult to achieve, but they are generally shorter than normal, which I hope will mean they will stand although the recent thunderstorms and heavy rainfall are testing them.

Disease control so far is good with chlorothalonil added in at T2 for ramularia control. On hybrid varieties, fluxapyroxad was used to try to reduce risk of brackling.

Loose smut mystery

As has been reported in the press, I have noticed some loose smut infected ears in some barley crops it will be interesting to understand if this is the start of this disease getting through fungicidal seed treatment.

Oilseed crops are almost impossible to assess for yield potential and I have not seen the significant pod abortion reported in some crops elsewhere. Flowering period was short which I predicted in my last blog and very interesting to read this may be linked to higher yield so we are hopeful.

Spring cereals that have only been in the ground about four weeks have really started to move and are heading into stem extension. The recent rainfall was welcome to help keep them growing.

Contact weed-control plans will be made shortly, once we have seen what weed germination has been stimulated by the rains.

Spring beans are similarly motoring away escaping the weevil attack with some grassweed emerging this will receive a graminicide shortly.

East: Marion Self

Prime Agriculture (Suffolk)

Winter wheat ears have emerged and are flowering. Orange wheat blossom midge (OWBM) populations have been high in some locations while, in other areas, populations have remained below threshold.

It is a relief most crops are beyond the susceptible stage from ear emergence to flowering.

T3 fungicide applications are planned this week to protect crops from fusarium infections during flowering and to top up foliar disease control.

Disease in the top of the canopy has been well controlled, although differences in septoria levels on the bottom leaves are becoming apparent between varieties.

During grain fill, we hope for moderate temperatures to compliment recent rains to maximise yield potential.

For milling wheat's, high yield potential will increase the need for a top up of foliar nitrogen to achieve quality specifications, this can be applied until milky ripe.

Bruchid risk

In beans, Bruchid alerts continue as maximum daily temperatures for two consecutive days reach 20C as pods develop. Chocolate spot will be encouraged by overcast, humid weather.

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Aphids pressure is increasing in peas. For all insecticides check product labels for timing of application, maximum number of treatments and total permitted dose per crop.

Sugar beet crops are growing well and weed-control strategies have worked well. Monitor crops and if necessary be ready to apply a final herbicide treatment before row closure, especially where recent showers have encouraged another flush of weeds.

Many of you will be visiting trials demonstrations during the next month. I encourage you to participate in these events; discuss your challenges and seek solutions.

You will find your neighbour is facing the same issues. All growers are battling blackgrass at some level. Remember, the foundation of control starts with good soil management and rotation.

South: Richard Harding

Procum, (Sussex)

Some spectacular storms over the Downs have been followed by variable amounts of rain, ranging from none, to up to 40mm in places.

We have, however, escaped the flooding others have experienced.

Crops have stood well with no obvious lodging anywhere.

The recent rain and rising temperatures have all contributed to rapid crop development as well as increased disease risk.

Wheat T2 fungicides have nearly all been applied, and with crops moving quickly into full ear emergence, a T3 fungicide consisting of tebuconazole + prothiconazole, will follow shortly. Crops with a high yield potential will also receive a partner strobilurin (pyraclostrobin).

At ear emergence, the risk of OWBM is higher than normal this season.

Spring barleys vary hugely in growth stages.

While some are only just receiving a T1 fungicide/plant growth regulator, others are close to receiving their T2, with late drilled crops just beginning stem extension.

Brown rust can be found in untreated susceptible varieties, as can mildew, with the recent rise in temperatures, and high humidity.

Mildew can be easily found in later-sown crops, as they grow quickly. This makes a two-spray fungicide programme essential on spring barley with good yield potential, irrespective of drill date.

Barley ripening

A slight change in colour in some winter barley crops suggests the onset of ripening on the most advanced crops.

Levels of loose smut seem much higher than normal this year, and this will require further investigation, to understand the possible causes.

Diseased ears have occurred in a range of conventional, and hybrid varieties, and within different seed treatments.

Conditions have been perfect for aphids, and a close eye is being kept on late-sown spring cereals, where barley yellow dwarf virus could still be a risk, as well as for gout fly eggs on spring wheat and barley.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I've yet to find any downy mildew in spring bean crops, but most crops have received at least one fungicide for chocolate spot control on winter crops.

Conditions are perfect for bruchid beetle, so a well-timed insecticide will be needed where quality is being targeted.

JOURNAL : Farmers Weekly

The improved weather in recent weeks has seen wheat fungicide timings get back on schedule with the T3 ear sprays being currently applied.

However, the rust threat remains high, as shown by the "devastatingly high levels of yellow rust" in spray misses in the West and the North.

In addition, our agronomists highlight that now is a good time for farmers to review their blackgrass strategy and consider making changes for next season.

North: David Martindale

Arable Alliance (Yorkshire)

May proved largely to be a dry month and crops have responded well to some warmer weather. More recently, coastal areas have had either sea mists or heavy cloud, so despite the dry conditions a distinct lack of sunshine will not be helping grain filling of either winter barley or oilseed rape crops.

Late-sown spring cereal and pulse crops are racing through their growth stages and look well.

Winter wheat crops are receiving their T3 fungicide mixes. Thankfully, the top three leaves are clean, which is crucial, as these are the most important for building yield. The dry weather in the past few weeks and fungicide timings back on schedule has recovered the disease control situation from the difficulties at the T0 and T1 timings.

See also: Why growing a Group 3 wheat may pay off next season

Yellow rust has made a late appearance in spray misses in field corners or around telegraph poles. While yellow rust in these areas is unsightly, it does reinforce just how well fungicides can control this disease.

Orange wheat blossom midge numbers have been higher than in recent years, but it is such a localised pest, with numbers caught in traps varying significantly across the same farm. A continued shift to growing varieties resistant to this pest is sensible as a risk management tool, as well as reducing insecticide use.

Blackgrass control

Overall, blackgrass control has been good this season, but mapping any grassweed issues is worthwhile. Even more worthwhile is making time to rogue any grassweeds, which in my opinion is one of the most important investments of the year.

Spring barley crops have a huge range of drilling dates, with the earliest-sown crops now at the ear emergence stage. T2 fungicides have already been applied at the awns-emerged stage, with chlorothalonil added for ramularia protection.

Gout fly continues its love affair with spring wheat with multiple eggs laid on the same plant, which in many cases has required a prompt insecticide application.

Spring beans mostly look well, with the earliest crops just beginning to start flowering. Weed control so far has been good due to plenty of moisture for the pre-emergence herbicides to work well, leaving only deep-germinating volunteer oilseed rape and charlock to be controlled post-emergence.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Black bean aphid populations are starting to build and, in some cases, there are large numbers on individual plants that is particularly early where crops have yet to start flowering.

West: Neil Potts

Matford Arable (Devon)

Since my previous article, the weather has done a complete U-turn and we have now had weeks with little or no rain. This has meant everyone has been able to "go like hell" and catch up with spring plantings.

The warmer and drier conditions have helped to reduce the wet weather disease pressure and crops have cleaned up reasonably well. Unsprayed corners of fields are, however, showing devastatingly high levels of yellow rust. This is quite refreshing to see as it demonstrates just how effective the fungicide programmes have been.

Winter barley crops where nitrogen timings were on time are now looking fairly promising, whereas those where applications were delayed are a bit on the thin side to produce a good yield.

Crops of Cassia where T2 applications have been delayed or not made at all are once again showing high levels of ramularia. With the recent warm weather, it is looking like we might even have a relatively early barley **harvest** at present.

Winter wheat crops and winter oat crops have now responded to N inputs and are looking very well, if a bit on the short side, as the weather was still wet and cold at early stem extension and little growth was made.

Short crops

Due to the late start to spring, many wheat crops have also dropped a leaf, which is contributing to the shortness of crops. Hopefully lodging will not be problem this year.

The spring barley crop this year, although late, is looking good where seed-beds were correct and moisture has not been a limiting factor or looking dreadful where seed-beds were poor and it has been too dry. In many crops, particularly the later-drilled ones, weed germination has been very slow and there have been repeat flushes.

With late planting and rapid growth, fitting in all the applications required has been a bit of a challenge, particularly where wild oats are an issue. With stressful growing conditions, complicated tank mixes have been a bit of a no-no in some situations as well.

The maize crop probably got off to its best start in years this season, with crops emerging quickly, staying green rather than turning yellow and red as in some seasons and growing quickly as a result of both warm days and nights. Many crops are approaching knee high in early June rather than by the beginning of July.

East: Ben Pledger

Farmacy (Beds/Herts)

Ear emergence in forward winter wheat crops has coincided with the wet, thundery weather a fortnight ago. Even with high disease pressure this spring, most crops are showing good potential after the robust fungicide programmes that have been used to date.

With that in mind, the option to go cheap and cheerful with the T3 fungicide has been ruled out. Prothioconazole has been the go-to chemistry to control both fusarium species and Microdochium nivale. A strobilurin active ingredient has been included for improved control of rusts, Septoria nodorum and sooty moulds and also to prolong green leaf area retention.

Cereals event

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

For those of you who travelled to Cereals this week, there were a lot of thought-provoking things to look at. However, I'd put money on the fact that one of the first was the varying populations of blackgrass in crops on the way to the event.

Unless you are planning on spraying areas of high populations off, whole cropping or hand rouging, there is little you can do about problem areas this season.

Now is the time to start your blackgrass control strategies for next year though. There are a number of relatively inexpensive cultural controls that can be employed before you even think about reaching for a can of chemical.

These include increasing seed rates, choosing a competitive variety, delaying drilling, extending rotations, using stale seed-beds, blowing down and cleaning out combines between blocks, planning harvesting to reduce the spread of seed around the farm and making sure contractors enter the farm with clean machinery.

Delayed drilling can lead the way to create stale seed-beds to kill off flushes of blackgrass before the crop is even sown. All fairly standard advice, which can be overlooked in the rush of harvest. Make a plan now and stick to it where possible.

South: Tod Hunnisett

AICC (Sussex)

Earwash time after yet another challenging season, and once again Mother Nature has demonstrated her ability to throw in a few wild cards.

These include wheat flowering when the ear is only half emerged at the end of May, winter barley having had tillers in ear for a month coming back into flower and spring barley demonstrating what looks like 150% germination, splitting the boot five weeks after drilling.

In the south of England, we had a very hot, very wet, very windy last week of May. Unprotected flag leaves were in desperate need of fungicide. Unfortunately, some timings were stretched and in some cases, rust has come back in with a vengeance.

There is yellow rust in Claire (yes, it is still widely grown near export ports) and brown rust in Crusoe – I cannot see this variety lasting much longer after this year. It annoys me that a variety of wheat has the ability to keep me awake at night.

Spring crops

The hot, wet weather has certainly helped the spring crops though. Fantastic establishment of everything from spring barley through to maize, spring oilseed rape and linseed. Manufacturers of growth regulators are laughing all the way to the bank where people increased their seed rates in spring barley.

Spring beans seem to have grown 6in between the time the sprayer started and finished spraying the field. Apparently, last week was the highest-ever measured pollen count in our area – a month before traditional haymaking time.

It will not be long before oilseed rape desiccation tickets. Some will need ultra-high-clearance sprayers. I think rape will be cut before winter barley this year, as this weird secondary flowering looks like it will be hanging on for some time before it becomes fit.

We're getting to the stage now when all we can do is hope we haven't upset Mummy Nature too much

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Recent warm weather allowed most growers to catch up but our agronomists urge proactivity with T2 fungicide applications in winter wheat, which are suffering heavy burdens of septoria.

These should be applied at the right time rather than observe the usual 21-day gap between T1 and T2 if disease is going to be successfully managed.

The lack of weeds seen so far in some spring cereals could point to a late flush after many herbicides have already passed their cut-off point, making control difficult.

See also: How Velcourt manages its wheat fungicide spend

West: Neil Potts

Matford Arable (Devon)

So far, 2018 has turned into the craziest season I can remember.

Crops are all over the place and all the spring cereals have been drilled in the second half of April and into early May.

Winter barley crops that had delayed nitrogen applications are not looking great, compared with those that received some on time.

Many barley crops missed their T0 altogether and ended up having a robust and late T1.

These crops are now at awn emergence and the disease control is looking fairly satisfactory. T2 applications have now started.

Winter wheat crops have suffered the same fate, with some missing their T0's and those on the heavier ground receiving late T1 applications.

The disease situation in these crops is not so great.

There are heavy burdens of septoria in crops that have missed applications or suffered delays. T2 applications are going to need to be made on time even if the period between T1 and T2 is a shorter than normal.

Some big guns are going to be needed at T2 to bring septoria back under control, particularly if the showery weather continues.

Delays could prove costly

Only LG Sundance is looking clean at the moment, with later-drilled Graham not far behind.

Early drilled Graham is showing worryingly high levels of septoria and Skyfall, which is usually quite a clean variety, is brown with septoria on the lower leaves.

On the plus side, many wheat crops that were looking shocking six weeks ago have responded well to nitrogen applications and are now looking like they have some potential so long as the disease can be checked.

Spring barley crops are going to be difficult to manage this year due to the lateness of drilling.

They will undoubtedly come into ear at much the same time as usual, which means they are going to grow very quickly, giving us much smaller windows for top-dressing and spray inputs.

I would urge growers to not waste a single opportunity to get applications on to the spring barley crop as a small weather delay could prove very costly.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

With spring cereals, maize and beet crops all going in the ground at the same time the agronomic workload is looking a bit daunting at present.

North: David Martindale

Arable Alliance (Yorkshire)

I cannot describe how good it has been to arrive on a farm and hear the phrase "I am all up to date".

Most crops have dramatically improved in the past two weeks as they have responded to fertiliser applications and the warmer weather.

Flag leaves are beginning to emerge on winter wheat crops. Many have received a more robust T1 fungicide mix after missing T0.

Septoria tritici is the disease of concern and is easy to find on leaf four where no T0 fungicide was applied.

With the all-important T2 fungicide timing approaching there will be different fungicide choices and doses depending on the variety, drilling date and what did or did not happen at T0 or T1 in relation to Septoria tritici control.

The most robust T2 mixes will be for early sown crops which did not receive a T0 fungicide and their T1 application was delayed.

Oilseed rape crops are in full flower and appear to be quickly setting pods. Pod set in most cases looks good so far.

Sclerotinia fungicides have been applied and pest pressure has been confined to a small number of seed weevil hotspots.

Huge variation

Winter barley crops are mostly at the awns emerging stage. T2 fungicides are being applied which will include chlorothalonil for ramularia control.

Where T1 fungicides were delayed in barley the rhynchosporium and net blotch levels are higher up the canopy than ideal. The T2 fungicide will prevent further spread of these diseases up the canopy while also providing brown rust control.

Spring barley crops have a huge variation in growth. Those sown before Easter have suffered the most from poor establishment due the heavy rains that followed drilling, but they have begun to improve in the past two weeks.

T1 fungicides will soon be ready to be applied to these crops with herbicides often added at the same time.

Winter beans are beginning to flower a fungicide mix to protect against chocolate spot should soon be applied.

Early sown spring beans look excellent at the 4-5 leaf pair stage while later-sown crops are emerging quickly but have required an insecticide after heavy attacks by the pea and bean weevil.

East: Ben Pledger

Farmacy (Beds/Herts)

With winter wheats moving quickly through growth stages, the flag leaf is now emerging on forward crops.

T1 fungicides may have only been applied to these crops seven to 10 days ago, and the temptation will be to keep to the standard 21-day interval between T1 and T2.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

As I write this, I can hear heavy rain at the window, and with active *Septoria tritici* sitting in the base of some crops my mind turns to rain splash moving spores in the base of the crop up the plant.

With the flag leaf contributing to more than 40% of yield, it is even more important than usual to protect it at the correct timing.

SDHI chemistry in the forms of bixafen or fluxapyroxad will be employed at T2, mixed with either epoxiconazole or prothioconazole, with the latter forming a good base to control fusarium later on.

A multisite active ingredient such as chlorothalonil or folpet may also be added on susceptible varieties, or if wetter weather is forecast.

Late weed flush

Blackgrass control in winter wheat in the form of mesosulfuron-methyl + iodosulfuron-methyl went on later than the ideal timing in places, controlling smaller plants, but allowing larger, well-tillered blackgrass to grow away to produce seed heads.

To top this off, I'm now finding new blackgrass emerging out of cracks in the ground. Later emerging broad-leaved weeds are also possibly going to cause problems as crops are now nearing the cut-off points for most herbicide products, with some products such as mecoprop-P having already passed its cut off point.

In spring crops, the lack of weeds in some places is concerning, pointing to a later flush, especially as it is raining. These may prove tricky to control, particularly in spring barley, sugar beet and peas where intervals between broad-leaved weed control and graminicides need to be observed.

South: Tod Hunnisett

AICC (Sussex)

It's been a funny old season. Non-stop rain followed by extremes of temperatures accompanied by howling gales.

Unreserved credit must go to the long-suffering operators: "I'm sorry sweetheart – I'd love to come to our wedding/grandad's 80th birthday celebrations/auntie's funeral but it looks like the weather's going to be nice and I have about a million acres to drill/spray/fertilise ."

Finally, people are beginning to feel they are catching up.

Late-drilled spring crops have gone into warm, moist soils and have shot through the ground – some coming through so quickly they've missed their pre-em slot.

Last nitrogen doses have gone on to wheat and at last they have a decent bit of colour.

Because of the wet early conditions I went in pretty heavy with early fungicide doses; if it stays dry from now on it will give me the opportunity to cut back a bit.

Plough still has use

Spring grassweed sprays that went on in the early hot weather seem to have worked superbly – which is encouraging because it suggests previous year's attempts that have been unsuccessful have only not worked because of the weather and not because of a resistant population.

Ear wash tickets have started to be recommended for winter barley. That's always a lovely feeling because it signals the beginning of the end of the silly season.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Oilseed rape is coming to the end of flowering and once again it astonishes me with its ability to compensate in thin or backward areas.

Maize drilling is taking place, a lot of it going into overwintered soils that looked horrendous before some magician came along with a funny thing called a plough and transformed them into workable ground.

Call me old-fashioned if you like, but in a season like this we all have to think outside the box.

JOURNAL : Farmers Weekly

Some oilseed rape is beginning to turn but our Crop Watch agronomists are warning pod sealant may be needed this season to deal with second waves of "mini-flowering" and ensure elasticity for desiccation.

Choosing when is the right time for desiccation will be a lottery in some areas thanks to crop variability.

Elsewhere, black bean aphids have reached threshold levels, which could mean an aphicide if conditions remain settled.

West – Giles Simpson

Pearce Seeds

Since I wrote last, we have had little to no rain and some of the crops could really do with a drink as I have seen some leaf roll on the flag leaf this week.

The winter barleys are beginning to turn and if the dry weather continues we are in for an early start to harvest. In general, the barleys are clean but thin as they lost tillers in the spring, especially where fertiliser applications were delayed.

The winter wheats have now received their ear wash and again look clean apart from sprayer misses.

See also: Cereals 2018: Wheat variety offers 33% extra untreated yield

The crops are generally short so straw yield, which is very important in our area, will be low. The straw auctions will take place over the next couple of weeks and the talk is of high prices.

The spring crops are a mixed bunch. The crops sown into good seed-beds and drilled well are looking OK.

The early drilled spring barley is well out in ear now and look very clean. The later-drilled crops have shot through the growth stages and are now just showing awns, but they are very short and barely up to my knee.

Poor germination

Some late-drilled crops in poor seed-beds are very patchy due to germination and yield will be well down on these.

The maize crops have mainly had a good start, but, again, seed-beds and drilling have been an issue. The seed-beds were drying out very quickly when being cultivated and cloddy seed-beds were inevitable.

Some seed has been in the ground for five weeks and hasn't germinated, this will now never be any good, if only the drill had been set to sow deeper the seed would have seen moisture and may have stood a chance.

It's my pet hate to see seed on or just under the surface and then not germinating.

We have drilled some maize in trials with just various biostimulant dressings to see if we can grow it without Mesuro as it's up for re-registration in July. All I will say is the rooks have had a field day.

South – Kevin Knight

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Zantra (Kent)

The “clean” wheat of May is now showing what was lurking beneath the canopy. Spray misses are like a miner's canary for early warning of disease and usual suspects (Skyfall, Zulu, Claire) are showing yellow rust building.

Brown rust is not difficult to find, particularly in Crusoe, and septoria is widespread on L3 and working upwards.

Some locally taken tissue tests of winter wheat are showing alarming deficiencies including of nitrogen and sulphur, in crops that had received plenty of both but have struggled due to having “wet feet” for most of the winter and not developing an adequate root system.

This has been exacerbated by compaction from May storms – 60mm in 15 minutes. 60mm equates to 600t/ha – in places it has ruined the soil structure, and leached nutrients away.

Consider this when planning post-harvest cultivations. While planning – if you haven't sprayed off or rogued bad grassweed patches then score your fields from 0 (“clean”) to 10 (“lawn”) and plan harvest to follow that order.

Mini-flowering

Winter barley and oats are beginning grainfill. Spring barley and oats romped away and it's been a struggle to keep up with them on strong ground due to wind. Final fungicides are either on or imminent.

Rapeseed is looking generally good. Some rapeseed raced through flowering to podset very rapidly, and over the past fortnight has thrown some axillary shoots to a “mini-flowering” which looked disconcertingly like charlock. As much use too – avoiding red seed could be tricky. Splitting pod sealant applications may help.

Spring beans will be getting their second fungicide application shortly. There was Black Bean aphid in winter beans, but I try to hold my nerve until this week in June – and it's paid off again.

Fortunately, no Bruchid spray was required until this week as that tends to knock the beneficials and Pirimicarb (aphox) is then needed to curb the aphids. Talking of which, I am seeing numbers of rose-grain aphid building on the ear in some areas. Individual plants with barley yellow dwarf virus in field are common even where Deter-treated seed was used.

Without Deter it is very clear the pressure was high, as even with an autumn aphicide the wheats show a high level of infection.

East – Marcus Mann

Frontier

With conditions remaining dry crops are accelerating their growth towards harvest.

Oilseed rape has fully podded, with lighter land seed already beginning to turn. Pod sealants are being applied to the crop to ensure maximum elasticity and also to protect the tramlines.

Encouraging them to lean over while the stems are still green allows the desiccant to go on later without snapping the stems and potentially losing them.

Although desiccation is a few weeks away, when applying glyphosate add an adjuvant containing ammonium sulphate to speed up the kill of problematic weeds such as thistles, as well the desiccation of the crop.

If nothing else, a water conditioner should always be added to the tank before glyphosate to buffer against hard water and retain the efficacy of the herbicide.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Winter wheat crops have all received there T3s, and attention is now on nitrogen levels to ensure crops meet or exceed quality specifications at **harvest**.

Extra nitrogen

The best way of assessing whether applied nitrogen to date has been adequate is to take test flag leaves, either by collecting samples and sending them for analysis or using **hand**-held monitoring units.

Applications of foliar N such as Multi N on the ear can increase protein levels up to 0.5%, which can make the difference between full and lower specification milling wheat, but make sure you have sufficient availability within Nmax.

Manganese and magnesium are being applied as a matter course to **sugar** beet, and where the crops are backward, foliar biostimulants are being applied to mitigate against abiotic and biotic stress, safeguarding the crop during early establishment and the key yield-building phase.

Aphid populations within cereals remain low, however pulse aphids continue to increase with pea aphid and black bean aphids reaching thresholds and pirimicarb is being applied with fungicides.

Pea moths have been caught in pheromone traps, so continue to monitor traps and the PGRO website for population levels.

Bruchid beetle activity remains higher with the increased temperatures. Spray timing is critical and should be based upon the simple criteria of pods being present, and the temperature having reached at least 20C on two consecutive days.

North – Patrick Stephenson

AICC (Yorkshire)

Cereals is always a watershed for agronomists as it's the first time we all get together to discuss the past season.

The journey to Chrishall Grange was a sobering event as all our weed problems were clearly visible from the Vale of Pickering to Duxford. Blackgrass, oats, brome, poppy, mayweed and ryegrass to name a few, meant the discussion had a pessimistic air.

The plots at Cereals were a stark reminder of what brown rust infections can do in wheat. However, even this is unlikely to force another spray application.

Soon it will be desiccation time for rapeseed and, at this point, I will seek some miraculous intervention. The variability in many crops means the timing could be like buying a lottery ticket. At some point we will have to pull the trigger and decide if we add sealant.

This spring has been the ultimate challenge for spring drilling, with March and April yielding more than 175 mm of rain. However, the majority of crops look well and now have ears emerging.

The only disease of any significance has been mildew in stressed crops, but the risk of ramularia means that a final ear spray based on chlorothalonil is being planned.

Poppies

In an attempt to tackle the poppies that has been providing tourists traveling to Scarborough with a Monet-like scenery, I have used the new Arylex Active and, at the moment, the A64 to Scarborough is not a crimson vista.

Oats and beans have grown rapidly and remain clean. Spring beans are flowering and black bean aphid can now be found, which could mean an aphicide if conditions remain settled or predator numbers do not build.

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Inevitably, Cereals is when all seed houses try to convince to invest in their latest offering. From my point of view the biggest debate still revolves around the makeup of the rotation.

I must reluctantly accept oilseed rape is still an important part. Rapid establishment and light leaf spot resistance are priorities, but the concern of erucic acid levels is starting to impact on variety choice.

While Clearfield does give an opportunity to minimise risk, it comes at a cost. At the moment, I have only the odd crop on charlock infested fields, but I am starting to look where it could be applicable on a wider platform.

We will still see Costello taking a large slice of the winter wheat area but the concerns of Orange Blossom Midge will mean varieties carrying the resistance will be sort after.

JOURNAL : Farmers Weekly

Alternating warm and cold spells are proving to be a challenge for our agronomists this spring, as they look to get fungicide and growth regulator application timings back on track with widely varying crop growth.

The hot bank holiday weekend will once again accelerate cereal growth and awns are already emerging in winter barley which are receiving their T2 sprays.

Likewise, the flag leaf in some early wheat crops is starting to emerge meaning the key T2 spray is fast approaching with no let up in the disease threat.

See also: How to find the best varieties on the revamped oilseed rape list

South: Richard Harding

ProCam (Sussex)

A glorious weekend on the Downs has allowed many to catch up and good progress should be possible on more forward winter wheat T2 fungicides next week.

Those crops with good potential, will receive a mix of epoxiconazole, fluxapyroxad, pyraclostrobin and chlorothalonil (for anti-resistance protection), plus a late plant growth regulator (PGR) where required.

The result of recent fine weather will mean crop growth will be picking up again in cereals. For wheat, even those where T1s have only just been/are still being applied, crops will be moving rapidly towards flag leaf emergence – some likely to show this coming week.

Previous wet weather, and more unsettled conditions to come, means the disease risk, particularly from septoria, remains high.

Barley T2

At the same time, winter barley awns and ears are emerging, and T2 fungicides including chlorothalonil for ramularia, will need to be applied, if not already done.

Brown rust is still ticking on in the bottom of many crops, and net blotch is easily found. Planned late PGRs based on ethephon, which were delayed by recent wet and windy weather, may now be too late, as we are past the awns emerging stage in many situations.

Oilseed rape crops are past peak flowering, and moving back to a more green appearance, and the pod-fill stage. Where flowers are still present, the sclerotinia risk remains high, and a top-up fungicide based around prothioconazole and fluopyram will be applied.

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Seed weevils will also be more active under current conditions. Although not likely to cause severe damage by themselves, their feeding holes allow the pod midge to lay their eggs in pods, ultimately causing the familiar pod splitting, most typically within the headland areas of the crop.

Winter beans are now growing rapidly, and have received a fungicide to control chocolate spot and downy mildew.

Pea and bean weevil grazing is relatively high at the moment, but crops are growing away from any damage, and are unlikely to require an insecticide.

East: Marion Self

Prime Agriculture (Suffolk)

A tricky start to the season saw our planned technical strategies being reshaped into a series of compromises driven by logistics and what is actually achievable. How well we have managed this difficult period of wet conditions and fast development will be revealed later in the season.

In wheat wet conditions and increasing temperatures have increased septoria pressure on lower leaves and in untreated crops more susceptible varieties have significant rust infections.

In early wheats, the tips of flag leaves are likely to be appearing. On these crops many T1 fungicide sprays were applied late to emerging leaf two rather than leaf three. It's important that we get back on schedule with T2 fungicides aimed at protecting the flag leaf.

In contrast on many October and later drilled wheats, T1 treatments have been well-timed at leaf three emergence.

My advice would be to keep fungicide timings tight and sprays robust. Many crops have good yield potential and will be receiving an SDHI plus azole + chlorothalonil mix at this timing.

Growth regulation

Wheats with good biomass or where the timing of earlier PGRs was compromised will need a robust dose of late-season PGR. The T2 fungicide timing is an opportunity to apply another PGR and finalise cleaver control (so long as it is applied before ear emergence).

In oilseed rape, where a two-spray fungicide strategy is in place it will soon be time for the second fungicide as flowering declines.

Winter beans have received the first fungicide at early to mid-flowing as chocolate spot begins to develop low in the canopy.

Spring crops are at very different stages depending on drilling date. Some spring barleys will be at late tillering and ready for their first fungicide with broad-leaved weed control.

Later-drilled sugar beet crops have established and herbicide treatments are under way. Earlier drilled crops with delayed treatments are now weedy, but large enough for more robust treatments.

North: Mary Munro

AICC/Strutt & Parker (Perthshire)

This is one of the most interesting weeks of the year as it is a great yardstick for crop development. At last we have some warmth in the soil and crops are growing on.

Winter barleys are still a bit behind last year, but perhaps now less than a week later.

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Winter wheat has also caught up to pretty much its usual stage on average, with most at growth stage 32 and leaf two coming out. As ever, there is a wide range of wheat growth stages at this time. Many have had the T1 (especially if T0 was omitted) and are on track with the fungicide programme.

There are the usual varietal differences in septoria levels, and yellow rust made an appearance pre-T1, although at a low level.

Slow oilseed rape

Winter oilseed rape has been notably slower in development following the late spring, and is taking a long time to come into flower. There may be one or two that are backward enough to merit a pollen beetle spray now temperatures are warmer, but growers should go firmly by the thresholds.

Even then, the threshold may not be met further into the crop despite large numbers of beetles at the edges. The mid-flowering fungicide may be a bit later in the month than usual.

After all the delays, spring cereals were drilled in double-quick time into good seed-beds which had benefitted from frost and broke down beautifully.

Crops emerged very quickly and are heading towards a weed spray and manganese at leaf two, with the first fungicide aimed at growth stage 31.

Potato planting was held up significantly and a large proportion of the crop was not in the ground before May. These spring crops seem destined for a late harvest.

West: Antony Wade

Hillhampton Technical Services (Herefordshire/Shropshire)

The short spell of warm weather in the third week of April allowed us to get some much-needed grassweed herbicide applications to wheat crops.

However, I do fear the delay to these applications is going to result in poorer than hoped efficacy as blackgrass, ryegrass and brome were all larger than ideal.

In some cases, chlorothalonil was added as a severely delayed T0, but worthy of inclusion as leaf four was still the emerging leaf at that time.

T1 recommendations followed rapidly behind as the short warm spell meant rapid leaf three emergence.

Then the roller coaster spring weather plunged again to cooler and unsettled meaning that these T1s have only been applied recently when temperatures climbed back in an unprecedentedly warm bank holiday weekend.

So this has meant leaf two is going to get some fungicide coverage which is no bad thing in my opinion although leaf three may well have already been exposed to infection.

Winter barley T1s were also applied in this April peak of warmth, despite crops still looking fairly short at this time I persevered with a robust plant growth strategy.

In hindsight this was the right decision as barley crops have romped through the growth stages and awns will be emerging on forward crops by the time you read this, too late for a late PGR product.

So T2s will be going out in the coming week with a more traditional awns emerging "paintbrush" timing plus some chlorothalonil added for ramularia protection.

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Oilseed rape crops went from green bud to early flower with this shot of warm weather so yellow bud planned fungicides went on, but have certainly covered early flowering protection from sclerotinia.

These will followed up after three to four weeks with a mid-flower sclerotinia fungicide which in most cases will go on this week.

JOURNAL : Farmers Weekly

An extra £400,000 will be added to the allocation budget of a multimillion-pound farm business grant scheme in Northern Ireland.

The Department of Agriculture, Environment and Rural Affairs (Daera) announced on Wednesday (2 May) that the second tranche of tier 1 of the Farm Business Improvement Scheme – Capital (FBIS-C) would receive extra funding.

Almost 3,000 applications have been received under the second tranche of the scheme, which is designed to support small-scale investments such as the purchase of equipment and machinery, to improve the sustainability of farm businesses.

See also: Essential tips for BPS 2018 claims

Grants are available for 40% of eligible costs on projects ranging from £5,000-£30,000.

The second tranche originally had a budget of £7.5m, but this has been increased to £7.9m.

A Daera spokesperson said: "This will help to ensure that the future sustainability of even more farms in Northern Ireland is achieved through capital investment in equipment that will also bring about improvements to the environment, animal and plant health, occupational health and safety and production efficiency."

Oversubscribed?

The Ulster Farmers' Union (UFU) has welcomed the announcement, saying the extra funding will help many farmers improve the efficiency of their farms.

But UFU president Ivor Ferguson added: "Despite the additional funding, the scheme remains oversubscribed and we would call on Daera to do what it can to find further additional funds for this popular scheme."

To date, 1,480 letters of offer for grants totalling £7.5m have been issued. Letters of offer will continue to be issued to eligible applications until the available budget is fully allocated. It is expected that unsuccessful applicants will be notified by early June.

For assistance with the application, contact Countryside Services on 0845 026 7535 or via email to tier1@countryideservices.com

JOURNAL : Farmers Weekly

UK milk buyer, Dairy Crest is investing £85m into its cheese business, £75m of which will be ploughed into the Davidstow creamery.

The cash injection means Dairy Crest will be able to process an extra 200m litres of milk a year, culminating in a 43% increase in cheese production capacity to 77,000t/year, over the next four-to-five years.

See also: UK dairy has highest processing investment in EU

This will also lead to a proportionate growth of the company's whey production site, indicating Dairy Crest's sights are set firmly on the global infant formula market.

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Increasing the production capacity for company's two leading brands, Cathedral City and Davidstow is also a direct response to the burgeoning domestic cheese market, as well as those of Europe, China, the US and the Far East.

Green credentials

Money spent at the Davidstow plant will also be used to reduce the environmental impact of the creamery, increasing the amount of water recycled on site as well as increasing its energy efficiency.

Both dairy processors and producers have significantly reduced their environmental footprint over the past decade, as highlighted in the 10th anniversary report from the Dairy Roadmap – a cross-industry initiative that aims to improve the environmental sustainability of the UK dairy sector.

The partnership we have with our farmers is absolutely crucial to our business and this investment should give them the confidence to invest in their own businesses, increase their productivity and enhance their important role in protecting the rural environment Mark Allen, Dairy Crest chief executive

"Dairy Crest is proud of the role it plays in the economy of the South West, and this £85m investment is a vote of confidence in the Cathedral City brand, our employees and our farmers, said Dairy Crest chief executive, Mark Allen.

"The partnership we have with our farmers is absolutely crucial to our business and this investment should give them the confidence to invest in their own businesses, increase their productivity and enhance their important role in protecting the rural environment."

Mr Allen added minimising the impact the Davidstow Creamery has on the environment was an important part of being a responsible member of the community.

"This is good news for the economy of the South West and for Britain's farming sector. We hope this investment will increase confidence and resilience when and where it is needed most."

What does this mean for farmers?

Chris Thomson, Dairy Crest procurement director

"We believe achieving the 200m litres across the next four or five years is achievable using our existing 330 producers.

"We are currently in discussion with Dairy Crest Direct [DCD] and our dairy farmers to put a plan in place on how to facilitate this expansion.

"Today is not an announcement of a recruitment drive at all – we are always conducting a little recruitment, but the opportunity here is for existing producers.

"The timeframe means that if in a year or two we need to look at bringing more farmers onboard, we can do that."

JOURNAL : Farmers Weekly

When Shropshire dairy farmer Henry Wilson returned home to farm four years ago vet spend had peaked at 2.5p/litre.

But by working closely with his vet, Tim O'Sullivan at Shropshire Farm Vets, he has since slashed spend to a current rolling average of 0.8p/litre.

"The major shift we have had is being proactive rather than reactive," Mr Wilson told delegates at Farmers Weekly's Rethinking Cattle Performance workshop, held at his farm near Shrewsbury, Shropshire, in association with Zoetis, XL Vets and Volac.

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See also: How a Shropshire dairy farmer saved £60,000 in mastitis control

Mr O'Sullivan pointed out that level of spend is very much farm-dependent but added that investing in disease prevention should be a priority.

"There may be farms spending 2p/litre and getting a very good return on that but the key thing is what the 2p/litre is being spent on," he said.

Farm facts

Milking 220 cows

Producing 9,800 litres at 4.07% butterfat and 3.3% protein

"If all the 2p/litre is going in treating disease with not enough investment in prevention then that's where it's unsustainable. We agreed together at the outset that the key to reducing the vet spend was to tackle the incidence and underlying causes of disease on farm."

He outlined three ways they have reduced overall spend by improving cow health and management:

1. Reducing mastitis

There has been an eightfold reduction in mastitis since erecting a new cubicle shed for higher yielding cows and increasing loafing area in older buildings.

In 2013-14, mastitis was running at 80 cases per 100 cows, but now incidence is sub-10 cases per 100 cows.

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"Before, we were probably trying to do too much with our **hands** tied behind our backs," explains Mr O'Sullivan. "We wanted to make as much use of the old facilities, but we had a bottleneck – stocking rate was always over 100% and it was very difficult for cows to loaf."

This has been overcome by:

Increasing loafing areas outside of older cubicles

Moving water troughs outside to encourage cows to go outdoors

Put up a new shed comprising 91 cubicles for the highest yielders (+35 litres)

Servicing the parlour annually

2. Improving transition cow management

Herd expansion from 110 to 220 milking cows has aided better transition cow management. "Previously, having 3-4 cows in a dry cow group made it difficult to mix feed. But being at 220 cows we never have less than 15 cows in the dry cow group so it makes it easier to feed," concedes Mr Wilson. Being militant about the way freshly calved cows are managed and implementing strict protocols have been key to reducing the number of dirty cows 60 days post calving:

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Each freshly calved cow and heifer gets "revive drink" within minutes of calving, containing calcium and glycol yeasts to rehydrate the cow, provide energy and prevent milk fever.

If a cow hasn't cleansed within three hours they will be given oxytocin which causes the uterus to contract and expel the cleansing.

They also receive 150ml of propylene glycol twice a day for five days to prevent ketosis and left displaced abomasum.

Cows carrying twins or fat are given Kexxtone boluses three weeks prior to calving to prevent ketosis.

Mr Wilson carries out post-calving checks to ensure each cow is clean, although incidences of these have reduced due to the above.

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3. Improving youngstock management

The farm switched from feeding calves whole milk to milk powder two years ago and since then has really sharpened attention to detail on youngstock management.

Calves are fed three litres of colostrum within three hours. Colostrum is tested with a Brix refractometer and if it's above 22% in quality it is frozen.

Bloods are then taken from calves within one week to check their immunoglobulin status which indicates how well colostrum has been fed.

Calves start on two litres of milk twice a day, building up to three litres by one week of age twice daily. Powder is mixed at a concentration of 150g per 0.85 litres of water to make up one litre.

They are fed ad-lib starter nut, straw and fresh water, and bedded on straw.

Feeding is stepped down to once daily at week 10 with calves weaned at week 12.

Calves are kept in individual hutches until one month when they move into groups of four.

Calves are BVD tag and tested, and vaccinated for pneumonia.

Benefits of reducing vet spend

Although vet spend is reducing, Mr O'Sullivan says it is good for both businesses.

"It's not all bad news for the vet practice that vet spend has gone down. It's more sustainable in the long term," he says.

"If vet spend is at 2p/litre is it probably unsustainable and that person might only be milking cows until the next price fall. Whereas someone whose vet spend is 0.8p/litre is more likely to be in business in years to come."

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Mr O'Sullivan points out that it also gives farmers the opportunity to spend more on vaccination and preventing disease rather than "firefighting" with drugs.

Mr Wilson says this is being realised on farm, where now they are implementing more vaccines to prevent disease.

"We now tag and test calves for BVD and vaccinate for pneumonia. When our vet spend was over 2p/litre this would have been unaffordable, but having lower costs gives us the option to be more proactive and it's a good position to be in.

"Long term, hopefully we are improving herd health and reducing antibiotics use, which is really important for us, as the pressure to do so is growing."

Sponsors' message

Thanks to Zoetis, Volac and XL Vets, whose sponsorship made it possible for us to run the Rethinking Cattle Performance workshop. Farmers Weekly. Farmers Weekly had full editorial control of this report.

Zoetis, Volac and XL Vets are committed to supporting UK cattle farmers in running enterprises that produce healthier, more productive animals.

Part of this commitment means working with organisations such as Farmers Weekly on initiatives such as the Rethinking Cattle Performance campaign, to offer farmers the opportunity to learn from experts and their peers about the best ways to produce cattle, and particularly calves, as efficiently as possible.

Visit our Events page to sign up for the next workshop.

JOURNAL : Farmers Weekly

The average level of butterfat and protein in UK cow's milk helped producers to maximise returns on rising milk prices, according to the latest Promar Milkfinder results.

Butterfat levels within the matched sample increased year-on-year to 4.05%, a rise of 1.14% on the same period 12 months ago.

See also: How UK herd achieved world top 10 ranking for milk yield

Protein content also rose, up 2% compared with February 2017 to average 3.29%.

Higher butterfat and protein levels meant dairy farmers were exploiting increased farmgate milk price returns, with the rolling average up 22.7% in 2018 compared with the year before.

"This is really positive news for this group of producers, with the impact on margins aided by a backdrop of the rolling 12-month milk price to concentrate price ratio for the group having improved from 1.17 to 1.34 in that time," said Nigel Davies, Promar's national consultancy manager.

What is Milkfinder?

Monthly tracker of UK dairy farm performance

Uses a matched sample of real herds to give a reflection of nationwide picture

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Produced by Promar, the UK's largest agri-food consultancy

"In the same period, average cow numbers increased by 2.4% to 209 cows, average yield by 2.86% to 8,244 litres a cow, and stocking rate by 0.07 cows a hectare."

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However, with the prospect of the milk price to concentrate ratio dropping over the course of the year, increases in herd reproductive performance would be crucial in sustaining the current level of farm business improvement, according to Mr Davies.

"The February report for the average sample suggests there might be a hint of deterioration in this area [reproduction], as the calving percentage metric has fallen from 98.6 to 97.6 per 100 cows in the past 12 months," he added.

"For this reason, I'd recommend that producers and their consultants pay particular attention to herd reproductive performance as they use Milkfinder to help them plan ahead for continued success next year.

"If they can master that, they'll be one step closer to repeating the success of the past twelve months, in the next twelve months, and sustaining the gains made so far."

JOURNAL : Farmers Weekly

UK dairy wholesale markets continued to rise in May, despite production also peaking in what has been a much-restrained spring flush.

Healthy demand and most processors operating close to maximum capacity drove strong prices, according to AHDB dairy, which reported increases for all four of the main traded commodities.

See also: Consecutive milk price rises for Muller producers

Trade and prices of bulk cream grew consistently through May, finishing the month 13% higher at £2,350/t – an increase of £400/t on the same period last year.

Butter saw a similar rise of 11%, averaging £5,180/t helped by a strong demand for cream and subsequent cream price increases.

<https://infogram.com/wholesale-dairy-may-1hxj48npmoyq4vg>

The levy board said sellers were in a strong position as there were little-to-no stocks available for spot trade and production wound down in the latter stages of the month.

A welcome change was seen in the skim milk powder (SMP) price, which shot up 14% on the month to an average of £1,320/t, but still remained 15% down on its level in May 2017.

A bumper sale of 42,000t of SMP from EU intervention stocks appeared to reinvigorate the market for fresh powder, according to AHDB Dairy, helping to increase demand and tighten the available stocks.

Mild cheddar largely emulated butter, with tight stocks leaving sellers in a strong position of only having to sell if the price was right.

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Consequently, trade was relatively thin and the average wholesale price only nudged up 2% on the month to £2,970/t, perfectly in line with its position 12 months earlier.

Expert Analysis: Peter Meehan at INTL FCStone

European Dairy commodity futures prices continued their march higher over the past couple of weeks.

Strong demand and lower than anticipated milk collections across the EU throughout the spring period are two of the drivers behind the price increases, despite improved milk fat and protein content for most of Europe's big milk producers offsetting the reduced liquid milk collections.

The latest milk collection numbers for April are showing New Zealand, the US and Australia all saw increases compared with last year.

Spot European butter prices have now seen eight consecutive weeks of increases, moving up by 24% in that period.

Spot skim milk powder (SMP) prices are also heading higher, posting seven weeks of gains on the bounce, up 19% in that period. SMP prices have remained firm on the back of very strong demand, with EU SMP exports for January-March up 8% on last year while SMP prices were unfazed by the EU Commission's sale of 42,000t of Intervention stocks last week.

With average UK farmgate milk prices posting four consecutive months of declines between December and March, the commodity price strength over recent weeks suggests farmgate milk prices may have bottomed out, with milk price increases announced over the past seven days.

JOURNAL : Farmers Weekly

UK dairy producers and processors have made significant strides towards reducing the industry's environmental footprint over the past decade, including meeting a 2020 target for renewable energy production two years early.

The UK Dairy Roadmap Report 2018, an initiative chaired by Dairy UK, working alongside the NFU and AHDB, highlighted the improvements in sustainability and efficiency made by UK dairy in the 10 years since the inception of the cross-industry initiative.

Since 2008, the UK dairy sector has reduced greenhouse gas emissions associated with milk production by 24%, while water efficiency has been increased by the same amount.

See also: Dairy Crest makes £85m investment in production capacity

Water efficiency has risen by 18% in the past decade and the proportion of total waste sent to landfill by the dairy industry has reduced from 35% to just 4% over the same period.

Dairy farmers hit five of the seven targets outlined in the previous 2015 report, including having 65% of dairy-managed farmland in environmental stewardship schemes, 10-15% of dairy farms using renewables and 50% of farms implementing new technologies to reduce emissions.

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Producers have also already hit the 2020 target of producing 40% of the energy used on dairy farms from renewable sources.

However, the industry has failed to hit two 2015 targets, including getting 90% of dairy farmers to be actively involved in nutrient management planning and achieving a declining trend in serious pollution incidences on farm.

What is the Dairy Roadmap?

Cross-industry initiative introduced in 2008

Chaired by Dairy UK working alongside AHDB and the NFU

Sets a series of targets to improve dairy's environmental footprint

Works with dairy farmers, producers and industry partners

"The dairy industry has made great strides in reducing its environmental footprint and it is great to see their ongoing progress to further increase the sustainability of this vital industry, said George Eustice Conservative MP, and minister of state for agriculture, fisheries and food.

"As the UK's largest agricultural sector, the industry has a major role to play in delivering our ambitious 25-year environment plan and I look forward to working with Dairy UK to deliver a bright future for our farmers, processors and the environment."

NFU dairy board chairman Michael Oakes said the report highlighted the significant environmental progress dairy farmers had made over the past decade, driven in part by the ambitious and wide-reaching targets set by the Roadmap.

"These targets include commitments to reduce greenhouse gas emissions and improve energy efficiency, water usage and waste management on farm," Mr Oakes said.

"The achievements of the past 10 years stand as testament to the hard work and commitment of our dairy farmer members to meet these environmental ambitions.

"We will continuously review future targets to ensure that the contribution of dairy farmers to the Dairy Roadmap remains ambitious and relevant to the range of sustainability challenges ahead."

JOURNAL : Farmers Weekly

The government has announced £10m worth of grants to restore England's peat bogs as part of its 25-year Environment Plan.

Funding has been split across four regional projects and will cover 6,580ha – the equivalent surface area of 46 Hyde Parks.

See also: Delays threaten Countryside Productivity Scheme funding

Defra estimates the initiative will help to store an estimated 23,000t of carbon (84,410t carbon dioxide) each year, helping to reduce greenhouse gas emissions.

Current government targets for UK carbon reduction for the 2018-22 budget are set at 693m tonnes of carbon (2,544m tonnes carbon dioxide).

The four projects

The North of England Peat Partnership

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Led by the Yorkshire Wildlife Trust

Will restore 394 ha of lowland raised bog and 1,679ha of blanket bog

Will affect 21 sites across northern England

The South West Peatlands Bid

Led by South West Water

Will focus on 1,680ha of upland peat across Bodmin Moor, Dartmoor and Exmoor

Meres & Mosses Carbon Capture Project

Led by Shropshire Wildlife Trust

Will restore a mix of nine lowland and upland peatland sites covering 98ha

Will focus on the Meres & Mosses Natural Area

Moor Carbon

Led by the Peak District National Park Authority

Will be working in the Peak District National Park, West Pennine Moors SSSI, and Rossendale Gap to restore more than 2,000ha of blanket bog

“Peatlands are an iconic aspect of the English landscape which are not only a haven for wildlife, but also provide us with clean water and help reduce greenhouse gas emissions,” said environment minister Thérèse Coffey.

“The 25-year environment plan sets out the government’s commitment to improve peatlands, and grant schemes such as this one will enable us to leave our environment better than we inherited it,” she added.

JOURNAL : Farmers Weekly

Defra has relaxed rules for applicants of the Countryside Productivity Small Grants (CPSG) scheme, following concerns equipment bought under the scheme would not arrive in the permitted time frame.

Applicants initially had 150 days to submit a claim and receive new equipment, but were liable to lose grants if delivery fell outside of this period.

See also: New £60m small grants scheme – all you need to know

This led to concerns that items such as fixed and mobile livestock-handling systems and cattle crushes could not be manufactured in time.

However, in response to the issues raised by producers and the NFU, successful applicants will now be able to take receipt of equipment outside of the 150-day window, receiving payments when the kit arrives.

Farmers who withdrew applications during the 14-day cooling off period can reinstate claims now or during a second round of funding due to open in the autumn.

Next steps for applicants

The RPA will contact producers who withdrew grants for livestock-handling equipment to inform them of these new options.

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Applicants with further concerns should contact the RPA directly.

Defra added that 3,500 grants had been awarded worth £23.5m, a 57% increase on the £15m originally budgeted for the scheme's first round, thanks to its popularity.

Reaction

"This is a positive move to improve a successful scheme," said NFU chief economics adviser Andrew Francis.

"The CPSG scheme has been a really positive initiative from Defra that has been easy for producers to apply for."

Dr Francis added he hoped these latest amendments would mean the scheme did not become a victim of its own success.

Countryside Productivity scheme grant facts

Scheme worth £60m for improving farm or forestry productivity, adding value to agri-food and water resource management and reservoirs.

Grants from £3,000 to £12,000 provided for equipment such as livestock handling systems, crushes, weighing equipment, arable GPS units, yield-mapping devices and direct or strip-till drills.

It pays out 40% of the total equipment value. So for a grant of £3,000 the minimum equipment cost will need to be £7,500, which must be paid upfront by the applicant before being claimed back.

Deadline for the scheme was 14 March 2018

JOURNAL : Farmers Weekly

Defra has rejected suggestions it is unprepared for Brexit – saying it has taken on more than 1,250 extra staff to help make a success of leaving the EU.

The department spoke out following a report by think tank the Institute for Government, which questioned Whitehall's preparedness for life after the EU.

A lack of experience at Defra meant the department faces a major challenge when it came to getting Brexit-related legislation through parliament, said the think tank.

See also: How to review your farm business to prepare for Brexit

The challenge was further complicated because agriculture is an area where powers have been devolved to Scotland, Wales and Northern Ireland.

This meant parts of the government's forthcoming Agriculture Bill would need consent beyond Westminster if it was to establish a new UK-wide framework for farming.

Prolonged stand-off

Devolution has already led to a prolonged stand-off between Scotland and Westminster over the government's EU withdrawal bill, said the Institute for Government.

The think tank said Defra's core department had already grown by 65% – but it suggested it would take time for staff to get up to speed.

It warned: "Bums on seats do not necessarily result in the capacity required.

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"New hires, who tend to be junior and mid-ranking civil servants, don't bring the experience and authority of the senior civil service."

Most affected

At the same time, the report said Defra was still expected to make savings of £130m to its resource budget this year – despite being one of the departments most affected by Brexit.

But a Defra spokesman said: "We have an extensive programme of work focused on delivering a green Brexit that will enhance environmental, animal welfare, and biosecurity standards.

"We have recruited around an additional 1,250 staff with the right skills, experience and leadership to make the most of the opportunities ahead."

The department has previously prepared a YouTube video to encourage people to work at the department.

<https://youtu.be/q7ayDXBcdQA>

JOURNAL : Farmers Weekly

The government has announced it will allow badger culling to take place in the low-risk area of England where TB herd breakdowns are linked to badgers.

Defra published the results of its consultation on Thursday (24 May) on proposals to cull badgers in low-risk areas (LRA) in the north and east of England, including Yorkshire, Cumbria and Northumberland, Norfolk, Suffolk, Essex and Kent.

An expansion of the cull into low-risk and "edge" areas of England could take place as early as this autumn, if applications for badger control licences are approved by Natural England.

See also: Farm minister explains purpose of bovine TB review

However, any decisions to allow badger culling in the LRA will be taken by ministers on a case-by-case basis and only in a "very small number of areas" identified as hotspots by the Animal and Plant Health Agency (APHA).

The consultation ran from 16 February to 15 April and it attracted 832 responses. Defra said just 3% of respondents identified themselves as "farmers or from farming organisations".

Most of the farming community would support extending the badger cull into low-risk areas of England to tackle bovine TB, according to the findings of the government consultation.

They stressed the importance of tackling the disease both in wildlife and cattle.

Farmer support

Most of those who expressed support for culling said they felt it would help stop the spread of TB in low-risk counties. These included the NFU, the British Cattle Veterinary Association (BCVA), and the British Veterinary Association (BVA).

However, opponents, including the Badger Trust and the Humane Society International (HSI) UK, expressed concerns about the badger culling policy itself and the scientific evidence relied on to formulate it.

The Badger Trust and Born Free organisations said irrespective of the level of infection of badgers in the LRA, there was no evidence that badgers are a risk to cattle in the LRA, therefore culling was not justified.

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The Wildlife Trusts, Zoological Society of London (ZSL), the Badger Trust and the Animal Welfare Group all supported government-led vaccination, but not culling.

Defra view 'unchanged'

In its response, however, the government hinted that badger culling will soon be extended to low-risk areas.

"The government's view remains that enabling badger control in the LRA where disease in badgers is linked with infected herds is a rational extension of the TB strategy to eradicate bovine TB," said Defra.

Its objective for the LRA is to "continue to protect it from the ingress of disease through the movement of cattle and the possible resulting infection of wildlife vectors".

TB strategy review

The government added that its position remains that "vaccination is unlikely to lead to disease eradication in the badger population within an acceptable time limit".

On Thursday (24 May), Defra published a document on new guidance to Natural England on badger culling licences to control the risk of bovine TB. The document also details policy requirements for the low-risk area and areas considering supplementary culling following four-year culls.

A review of the government's 25-year TB eradication strategy for England is currently being chaired by Sir Charles Godfray, a population biologist and fellow of the Royal Society.

Compensation announcement

Defra has also rubber-stamped a proposal to pay compensation at 50% of the average market price for any animal brought into a TB breakdown herd which then fails a TB test whilst that breakdown is still ongoing.

This already happens in Wales, but the UK government has confirmed it will apply in England from 1 November 2018.

In a written statement to parliament, farm minister George Eustice said: "The proposal is intended to encourage herd owners to take further steps to improve their disease controls in a sensible and proportionate manner.

"One way they can do this is to seek accreditation under a scheme based on the standards laid down by the Cattle Health Certification Standards (CHeCS) body.

"Herds which are accredited at the time of the breakdown will continue to receive 100% compensation for all compulsorily slaughtered cattle."

JOURNAL : Farmers Weekly

Defra has confirmed some farmers and landowners who have yet to be paid their Countryside Stewardship (CS) money, will benefit from a 75% bridging payment, with the money hitting bank accounts by the end of June.

Specifically, Defra says mid-tier agreement holders, who claimed payments in 2017, will receive a bridging payment if they have not been paid by 21 June.

See also: Bridging cash needed to plug Countryside Stewardship scheme hole

The move follows a concerted lobbying effort by the Country Land and Business Association (CLA), the NFU and the Tenant Farmers Association (TFA), which wrote to Defra secretary Michael Gove earlier this week, describing the payment situation as a "shambles".

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"The backlog of farmers awaiting payments for environmental work, some up to nine months, is unacceptable and must be sorted quickly," said the letter.

A day later, Defra put out a statement explaining affected customers will soon receive 75% of the estimated value of their CS 2017 claims in the form of an interest-free loan.

"When the full payment is processed and made, the amount paid through the bridging payment will be held back," it added.

Inadequate

Defra says some 82% of 2017 CS claimants have already received a payment for environmental work on their farms, so 18% will now get bridging payments.

But, while acknowledging the move as a "welcome first step", NFU deputy president Guy Smith said it was "inadequate" it was only going to those on mid-tier schemes.

"This bridging payment covers less than half of farmers involved in agri-environment schemes – those on higher-tier CS, entry-level stewardship or higher-level stewardship will not see the benefit," said Mr Smith, adding the issue should have been sorted out far sooner as the problems had been apparent since the start of the year.

He also described the measure as a "sticking plaster" which could not mask the deeper problems with CS, including its complexity and problems with getting applications accepted.

The NFU, together with the CLA and TFA, is asking Defra to consider simply rolling over existing ELS and HLS schemes on an annual basis, until a new environmental land management scheme is up and running post Brexit, so by-passing CS.

Failure to do so would put at risk the many years of valuable conservation work farmers have already delivered.

When will final BPS money go out?

The Tenant Farmers Association (TFA) is calling for urgent clarity from the Rural Payments Agency as to when farmers will receive their final balancing payments under the 2017 BPS scheme.

The association says it has been told many farmers will not receive these payments by 30 June – the deadline set by Brussels.

Bridging payments worth 75% of the expected full amount went out to 3,200 farms in April, but the TFA says many are still feeling the financial pressure.

JOURNAL : Farmers Weekly

Defra is facing an "impossible challenge" and is "in the dark" about how to prepare for Brexit, a government scrutiny committee has warned.

The Public Accounts Committee's report, released on Friday 4 May, says preparations for Brexit are being hampered by uncertainty over the UK's future relationship with the European Union.

Defra and the Department for International Trade (DIT) were described as being without a clear plan of top priorities.

See also: Brexit green schemes a 'no-brainer' for farmers, says Eustice

But, the report adds, both departments appear optimistic that they can deliver what's required by March 2019, whatever the outcome of the negotiations.

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Having to work up options for three different scenarios – deal, no deal or transition – is “time-consuming and costly” for Defra in particular.

It also has to navigate new legislation and major IT programmes in a very short time, though the committee is concerned this may not be realistic.

Defra has said it will fall back on manual systems to deliver Brexit, but this could impede or slow down imports and exports, and cause severe delays at the border.

“There are substantial risks, including disruption to the agri-food and chemicals industries, if Defra’s IT systems are not ready in time,” the committee said.

Defra to make changes

Defra has 64 active workstreams – up from 43 when the committee took evidence in March – from import controls on animals and animal products to the authorisation of new chemical products.

The committee has said it is “unrealistic” to expect Defra to make its planned £138m of savings in 2018-19 while delivering its Brexit programme and its usual work.

It has recommended Defra set out a list of programmes it plans to stop, postpone or minimise by the end of June.

Committee chair Meg Hillier said: “Our committee has repeatedly raised concerns about government’s preparedness for life outside the EU. The clock is ticking and there is still no clarity about what Brexit will mean in practice.

“Departments are under extreme pressure. If parliament is to hold them to account, then it is vital that government is as transparent as possible on the progress being made.”

Close collaboration ‘vital’

A spokesman for the government said: “We have already agreed the terms of an implementation period that will provide businesses with the continuity they need to prepare and thrive after we leave the EU.

“Work is being undertaken across the whole of government, in a range of exit scenarios in preparation for our withdrawal from the EU.

“Close collaboration between departments is vital as we negotiate our exit from the EU and develop our future trade policy with the world, and Whitehall is rising to the challenge.”

JOURNAL : Farmers Weekly

A £5.3m package unveiled by Defra aims to improve the resilience, sustainability and quality of major crops for UK farmers.

Four leading agricultural research centres will help develop new technologies and environmentally friendly production for farmers and growers across the country.

See also: Why urgent research is needed to fight flea beetle

They will focus on boosting productivity for pulses, wheat, leafy vegetables and oilseed rape as part of Defra’s Crop Genetic Improvement Networks (GINs).

Defra secretary Michael Gove said: “Developing new technology is crucial to making sure our farmers can continue to grow world-class produce in an environmentally friendly way.”

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Resistance

"Through this new fund, I hope to see the creation of new and innovative growing practices and crop protections so we can truly unlock the potential of our food and farming industries."

Since their creation in 2003, Defra's GINs have helped increase crop resistance to pests and diseases such as orange blossom midge and turnip mosaic virus.

They have also helped researchers and scientists enhance pea crops, which are now being used to produce high-quality animal feed.

Crop production

The four recipients that will undertake the research are the John Innes Centre, Rothamsted Research, University of Warwick and University of York.

Ian Bancroft, who leads the agricultural research centre at the University of York, said: "Innovation through these networks is essential if we are to see growth in healthy crop production."

The government has so far invested £160m through its agri-tech strategy to harness the latest agricultural research and technologies.

JOURNAL : Farmers Weekly

Scottish farms are finally entering the market after poor spring weather delayed photographs and marketing plans in the first four months of the year.

Publicly marketed acres are down by nearly a third on 2017, but a number of May and June launches have surfaced.

Agents say buyers are poised and tight supply is already leading to healthy competition.

See also: More than 3,000 acres hit spring farmland market

Most of the 4,000 acres on the open market from January to April were bare blocks and small farms.

Earlier this month Strutt & Parker launched 220-acre East Bowhouse at Leslie in Fife at offers over £1.5m, but it acknowledged that supply has been slow.

Associate director William Dalrymple said: "It has been relatively quiet compared to last year, however 2017 saw some exceptional early spring launches.

"With the exception of three farms, all those marketed in Scotland so far this year have been under 250 acres, which shows us that it is the smaller, less profitable units which are being sold.

"It is still early in the season for Scottish sales though, and there are some interesting farms in the pipeline."

Savills agreed that the market had been slow to get underway following a wet winter and slow spring.

The firm's director of rural agency, Evelyn Channing, predicted restricted supply would remain.

"It feels like volume will again be constrained this year – we are certainly not expecting to be awash with farms," she said.

"There are a number of estate sales which will include in-hand land and farming opportunities. I definitely perceive that buyers are poised to spring into action."

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Sales already agreed

Strong demand from fast-moving buyers has been evident in Ayrshire.

Bob Cherry, partner at Galbraith, said two farms he brought to the market in March – 140-acre Roughdyke Farm at £795,000 and 112-acre MacQuittiston Farm for £585,000 – both went under offer in late April.

“The market for farms and farmland in Ayr is still strong, despite the atrocious weather we have experienced over the past couple of months,” he said.

“Our approach is to consider dividing farm sales into lots, where appropriate, to open up the sale to a wider pool of buyers.”

New to market

Farms of reasonable scale have been hard to come by so far this year, but Savills has two to launch.

Elphinstone Tower Farm has 450 acres in the heart of East Lothian, 12 miles from Edinburgh.

Offers over £3.25m as a whole, or in three lots, are invited for the arable unit, which includes buildings and a two-bedroom cottage.

“We are anticipating strong interest from both the local market and buyers from south of the border looking to Scotland for scale,” said selling agent Luke French.

Further north, lying south of the Angus Glens at Fern, 350-acre Balquhadly has just hit the market.

It could attract livestock farmers or those looking to create a mixed unit from arable ground plus temporary and permanent grass.

Conservation and amenity value comes in the form of four duck-flighting ponds, and there is a good range of buildings and farmhouse for £1.2m.

About a quarter of land brought to the market in Scotland this year has been in Aberdeenshire and Galbraith has just launched 178-acre Scurdargue, near Huntly.

The mixed unit has been focused on arable production, growing wheat and spring barley alongside some permanent pasture.

Well equipped with modern buildings and a four-bedroom house, a guide price of offers over £695,000 has been set.

JOURNAL : Farmers Weekly

Farmers who successfully applied for funding under the Countryside Productivity Scheme are struggling to source the equipment they want to buy within the required time limits because of long lead-in times.

The Countryside Productivity Small Grants Scheme offered grants of up to 40% to allow livestock and arable farmers to purchase kit which would make their businesses more efficient and productive, with the cash on offer ranging from £3,000 to £12,000.

Farmers are receiving letters from the RPA informing them whether their applications for the first round of the scheme have been successful.

See also: Warning over pitfalls of sideways tax relief

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Applicants have an initial 14-day cooling off period from receipt of the grant offer in which to decline it if they want to – however, if they accept it, they must purchase the equipment and submit a claim for payment within 150 days.

However, the NFU has warned supply and delivery issues could scupper farmers' ability to get the equipment within the necessary time.

"We are now receiving numerous instances, particularly with livestock-handling equipment such as cattle crushes that the manufacturers lead time to delivery is more than 150 days," said a statement from the union.

"This will mean that successful grant applicants will be outside the window in which to receive this funding."

The NFU said it was in frequent contact with Defra officials about how to resolve this problem, as it was determined that farmers should not lose out on the opportunity of the grant funds.

Defra says it is aware some grant recipients are experiencing difficulties in getting guaranteed deliveries within the 150-days and it is working with affected parties to find solutions to their individual cases.

Further information on successful applications is expected to be announced in the coming weeks.

Farmers who want to take up their grant offer are being advised to check the availability of equipment with their suppliers immediately.

JOURNAL : Farmers Weekly

The Alzheimer's Society has launched a guide to help farmers and rural residents support relatives, friends and neighbours with dementia.

Published to coincide with Dementia Action Week which ends on Sunday 27 May, it urges individuals, community groups and organisations to do more for those affected.

See also: Results of study into rural dementia revealed

Living in the countryside and having dementia (caused when the brain is damaged by diseases, such as Alzheimer's) can put people in a position of "double jeopardy", according to the report.

They can be left feeling "excluded and disempowered", unable to access support, guidance and services such as transport, shops, healthcare and banks.

There is more society needs to do to ensure everyone, in every corner of the country is supported Jeremy Hughes, Alzheimer's Society chief executive

"There is more society needs to do to ensure everyone, in every corner of the country is supported," said Alzheimer's Society chief executive Jeremy Hughes.

"Two thirds of people with dementia are based in rural areas."

Safety hazards

The condition can have particular implications in the agricultural sector because farmers often continue working long after the state retirement age.

There are also additional safety hazards, such as machinery, silage pits or livestock, and the often-solitary nature of the job can lead to delays in calling for help – or it arriving – following an accident.

"The cost in time and money of attending appointments can be particularly prohibitive for farmers, who are self-employed and may not have someone to manage the farm or have to pay for additional staff, added Mr Hughes.

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Dementia facts

Begins with mild symptoms that get worse

A person experiencing it might have problems with day-to-day memory, difficulties making decisions, language issues, problems with perception of where objects are, lose track of the day or date, or show changes in their mood

225,000 people will develop it this year

One in six people over the age of 80 have it

Charles Smith, chief executive of the Farming Community Network which was involved in the development of this guide, said the charity is seeing more cases of dementia.

"It's not exclusively a disease of old age, but it's often associated with it – and as the farming population gets older, so we are likely to see more.

"Farmers frequently stay working and involved with the business later in life so, if they're affected with dementia, routine tasks can get forgotten or done too many times.

"In extreme cases, they can be at risk using machinery or even get lost."

Research has also shown you are far more likely to develop dementia if you are lonely, so encouraging social interaction is really important, added Mr Smith.

Good to talk

"It's important to talk about this as a family so you can develop coping strategies. It's a physical health issue – there's absolutely no shame attached to it."

The guide also highlights the importance of members of farming families having discussions about lasting powers of attorney and succession planning.

Village schools, youth groups, Guides and Scouts all have a role to play giving support, as do Young Farmers – and the report praises the work of the National Federation of Young Farmers' Clubs' Rural+ campaign which was developed by – and run in association with – FCN.

Launched in 2014, this aimed to raise awareness of rural isolation, dementia and mental health.

"Young farmers play an integral role within rural communities as they communicate and work with the older generation who are less likely to talk about any issues they may be facing," Mr Hughes said.

"This raises awareness, reduces the stigma of dementia, and builds stronger and healthier rural communities."

JOURNAL : Farmers Weekly

The wife of a Somerset County Council tenant has spoken of her heartbreak as the couple prepares to leave their dairy farm ahead of its sale.

Sue and David Osborne have "fought tooth and nail" to stay at 135-acre Oxenford Farm, near Ilminster, where they have lived for 16 years.

But the unit is one of seven being sold this year by the council to free up capital to invest in public services.

See also: What to do if your landlord decides to sell the farm

Earlier this month their Holstein herd was sold and the farm – usually occupied by 300 cattle – fell silent.

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"It's like being on the Mary Celeste or standing in a ghost town," Mrs Osborne said. "The lights are on but no one is home.

"We are here taking apart something we have built since 2002 and David has designed and created a lot of this. It's devastating for him."

Mrs Osborne, a district councillor, blames funding cuts and the pressure from central government being put on local authority finances.

"Council farms are highly saleable assets and if you are under a farm business tenancy, once it comes to an end, you're out if you can't afford to buy it," she said.

The couple explored all possible avenues, including raising a large mortgage and working with an investor, but just couldn't make the numbers work.

At the eleventh hour they thought they had found a solution, with a local farmer offering to buy Oxenford and keep the Osbornes in place until their retirement.

"He has three sons who want to farm in the long term, so put in an offer of £1.6m with a view to us staying for three to five years," Mrs Osborne said.

"The bid was turned down, apparently because it is worth more on the open market."

Seven council farms on market

Somerset County Council says it has not received any offers that match what advisers expect to receive on the open market.

The authority is selling seven of its farms this year – units where tenancies are coming to an end and are not being reviewed.

It will bring the number of farms in its portfolio down to 20.

"The farms being sold are surplus to our requirements and the money generated is used to fund valuable and much-needed capital projects that benefit the entire county such as the building of new schools," a spokesman said.

"We are expecting to raise about £8m from the sale of these seven farms.

"Since the policy was introduced in 2009, we have raised about £35m from the sale of about 30 farms."

Which Somerset County Council farms are being sold?

Whitney Farm, Donyatt, 50 acres (60 acres retained)

Eastside Farm, Bridgwater, 101 acres (24 acres retained)

Oxenford Farm, Dowlish Manor, 135 acres

Dolly's Pool Dairy, Donyatt, 10 acres (100 acres retained)

Stream Farm, Weare, 52 acres (30 acres retained)

Selwood Farm, Lympsham, 73 acres

Coldharbour Farm, Donyatt 145 acres

'Done all we can to stay'

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Mrs Osborne thinks industry bodies and organisations have a duty to fight to protect council farms from being sold.

“We were on a starter farm before we progressed to this one,” she said.

“Unless the industry really ramps up a campaign against the sale of these farms, you won’t have them at all in 10 years, because the pressure on local governments to sell is horrendous.

“We have done all we can to stay here, but it’s not enough.”

The couple have to vacate the farm and farmhouse by 31 May, and are currently searching for new work opportunities.

At the time of writing, two of the council’s units – Whitney Farm at Donyatt and Eastside Farm at Bridgwater – were set to be sold to sitting tenants.

The remainder will be auctioned, with the council expecting sales to be completed by the end of June.

JOURNAL : Farmers Weekly

Oxfordshire grower James Alexander hopes to increase yields while drastically cutting his diesel bill by switching to direct drilling across his 323ha of organic cropping.

The direct drilling advocate already employs no-till across an additional 81ha of conventional cropping – matching his neighbours’ yields with an average of 8.6t/ha while spending far less on cultivation and pesticides.

With a diesel bill four times higher and yields plateauing at an average of 3.7t/ha, direct drilling is the obvious solution for this contract grower to maximise his returns from the organic cropping area.

See also: Top tips from two US no-till and cover crop veterans

Without being able to plough, weed control is usually the hurdle organic growers have to overcome if they are to direct drill, but Mr Alexander is achieving this through a combination of cover crops, mechanical weeders and high seed rates.

Instead, his problem is not being able to successfully kill off the cover crops grown for both nutrition and weed control to allow the following winter wheat to be direct drilled.

Name: James Alexander

Problem being solved: Forms of weed control other than ploughing must be found if organic farmers are to be able to use no-till cultivation on their farms.

Approach: Using a mixture of high seed rates, mechanical weeders and cover crops to manage weeds, and employing a crimper roller to kill off cover crops.

Killing cover crops

In the absence of glyphosate the owner of cross-slot drill manufacturer Primewest has built his own crimper roller, a knife roller designed to roll, cut and bruise cover crops in front of a direct drill, to experiment with.

“We wanted to build one for a long time, but with glyphosate’s future in doubt long-term, we thought we must do it now,” he says.

After the first roller was snapped up by a customer in Lincolnshire, Mr Alexander built a second roller to allow experimentation on his own farm.

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Around 81ha of cover crop are grown each year to put nitrogen back into the drought-prone limestone brash over rock soils after a lengthy rotation of winter wheat, spring barley, spring or winter oats, beans and then spring wheat.

This one-year break is extended to two in areas plagued with blackgrass as part of a zero-tolerance approach to the grassweed, an approach that often sees him top sections with high blackgrass plant populations.

While these cover crops are direct drilled at the end of the rotation, Mr Alexander currently has to plough after the one- or two-year break before he can drill winter wheat.

“Because of the cover crop we haven’t moved the soil for two years, then we have to move it all up,” he says. “Ploughing is the worst thing you can do for your soil.”

Mix of species

Mr Alexander, who is part of the Innovative Farmer’s alternative methods for terminating cover crops trial, says the difficulty in killing a cover crop without glyphosate lies in the fact that good cover crops are a mix of species.

A mix means that the crop will not reach the ideal stage for crimping, flowering, at the same time.

For blackgrass control a combination of red clover and rye grass is used, while the one-year fertilising crop is vetch and oats.

“We tried crimping so that we can kill the vetch but not the oats. The oats just grow back, even if you mow them.”

The year he is trying vetch with rye, the main cover crop used in the USA, for the first time.

He plans to lay the crop onto the ground in June and crimp it to create a weed-suppressing mat which will last until the winter wheat is drilled in October.

If it doesn’t, a second cover crop will be drilled in July or August. This is likely to consist of a frost-intolerant plant, or mix of plants, such as buckwheat, mustard or phacelia, which can remain in the wheat crop and be taken out by the cold.

Depending on how experiments with crimping this new mix work this summer, Mr Alexander thinks he could be direct drilling his cereal crops within three years.

While this crimper goes on the front, he is also thinking of looking at trailed versions which would go over the ground faster.

“Hopefully, over summer we can try out a few things,” he says.

Permanent clover

He is also planning to try establishing a permanent clover cover crop, which would remain in the bottom of the crop to provide both nutrition and weed control.

“If we could get clover to linger in the field all year round, we would be laughing, but we need to find the right variety.”

As well as the British climate being a challenge to achieving this, not being able to mow the clover to stimulate growth after the commercial crop has established is a problem.

Mr Alexander has also found that once certain types of clover have established, herbicides are necessary to get rid of them.

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For this reason, he trials new ideas on the conventional farm first, so herbicides are always available as a fall-back position when they don't work out.

If glyphosate was banned, Mr Alexander would like to think he would be able to continue direct drilling on his conventional farm as herbicides are already used minimally.

Blackgrass is no longer a problem, so crops of wheat and rape are often grown with just a pre-emergence herbicide.

He is also using less fungicide and no insecticide, and uses the farm to showcase the benefits of ultra-low-disturbance direct drilling to his drill customers.

Meanwhile, with the organic licence due to run out at the time of Brexit and very mixed messages coming from Defra about soil health, coupled with high input costs, the owners of the organic farm may take the opportunity to revert.

Weed control strategy

James Alexander's strategy for weed control on his organic land involves high seed rates, cover crops and the use of mechanical weeders.

A seed rate of 400 seeds/sq m is used in both spring and autumn to try to compete out weeds.

Blackgrass is a problem in some areas on the farm and is met with a zero-tolerance approach. Select areas of crops where the grassweed is gaining a foothold are often topped to stop the spread of seed.

Last season Mr Alexander topped a field of beans which had become more grassweed than beans, and considered topping a field of wheat.

A two-year cover crop of red clover and rye grass is put in for two years to eliminate the grassweed in affected fields.

Docks and thistles are the biggest issue on the farm. These are cut out of a growing crop using a CombCut, a selective weed mower, which is passed through the crop four or five times a season.

The coarser weeds are caught in the fixed blades and cut off completely or severely damaged.

Trailblazers

This new series aims to showcase arable farmers who are ahead of their time and are trying new approaches, whether it's growing new crops, taking a radical approach to growing oilseed rape or being a pioneer in the use of new technology.

If you know of any farmer or wish to be featured in this new series, contact the arable editor at richard.allison@reedbusiness.com

JOURNAL : Farmers Weekly

Pig industry leaders have called for a stringent control policy to curb wild boar numbers in the Forest of Dean amid fears the growing population could spread serious diseases.

According to the National Pig Association (NPA), the Gloucestershire forest saw a trebling of boars between 2013 and 2017 to peak at almost 1,600 last year.

See also: Danes and Poles plan 800 miles of fence to halt wild boar

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The rapid rise in boar numbers is fuelling concern among pig sector officials over the potential future transmission of diseases such as African swine fever (ASF).

Although ASF has not yet been seen in the UK, the disease is progressing steadily westwards from Russia into European countries.

Disease spread

The movement of infected wild boar has been blamed for much of the spread but the virus has also been carried over larger distances by farmworkers and visitors.

The UK's reliance on farmworkers from eastern Europe, combined with the growing wild boar population, means it is vulnerable so potential wild populations, which could harbour the disease, must be addressed, according to the NPA and the Pig Veterinary Society (PVS).

Speaking on the NPA's website, PVS vice-president Richard Pearson, said: "ASF and the expanding feral boar population in the Forest of Dean are of significant concern to the PVS and the pig sector more widely.

"So while our UK status as an island affords us protection from migrating wild boar in Europe, our feral pigs do give cause for rising unease, especially given the number of [former] Eastern Bloc workers returning with meat products that could enter the food chain."

Solutions

NPA chief executive Zoe Davies added she had already begun discussions with local Conservative MP, Mark Harper, and wildlife groups such as the Deer Initiative to discuss possible solutions to the problem.

"I've been talking to Mr Harper about the industry/Forestry Commission joint-funding a dedicated resource to co-ordinate efforts by farmers, councils, stalkers and Natural England to control the boar population more effectively," Dr Davies said.

She also hopes to secure levy money funding through AHDB Pork to help fund a proper control plan.

"I'd hope with the emphasis on export markets and the risk those feral pigs pose, the AHDB will agree it is an entirely sensible use of levy payers' money," Dr Davies said, stressing that ideas and discussions were still at a very early stage.

However, she said that one aim could be to provide a co-ordinator role to oversee effective collaboration between the Forestry Commission rangers, Natural England, local landowners, pig keepers and farmers, as well as the hunters, councils and emergency services.

The role could improve public information about wild boar to the public, log data on culling and co-ordinate work to control feral pigs more effectively, she envisaged.

JOURNAL : Farmers Weekly

The failure of the voluntary code of practice (VCOP) to deliver any lasting change has left the NFU with no option but to call for milk contract regulation, according its dairy board.

Despite some milk buyers making great strides towards a fairer system, bad practices were still rife in the industry, according to an open letter signed by the NFU's Michael Oakes, dairy board chairman, Sian Davies, chief dairy adviser and Nina Winter, chief legal adviser.

See also: Muller confirms fixed-price milk contract

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The industry could not continue with farmers shouldering all the risk and with buyers making amendments to contracts as and when it suits themselves, the letter said.

This had been evident during recent market crashes which highlighted how some buyers slashed contracts to protect margins, in turn cutting many dairy farm businesses to the bone.

What is the NFU calling for?

Defra has indicated in its recent Command Paper it would seek to adopt the EU Commission's common market organisation regulation (CMO), a document described by the NFU as "prescriptive" and "inflexible".

What does the common market organisation regulation say about dairy?

Contracts should have transparent pricing

Prices should either be fixed or linked to market signals

Minimum contract length of six months

Encourages the creation of producer organisations

Includes safety net provisions such as skim-milk powder intervention storage

However, the NFU has indicated the CMO could be used as a framework for new regulations, leaving Defra with the option of creating a bespoke set of contractual rules for the dairy industry after the UK leaves the EU.

"We gave the VCOP a good shot but it's clear some buyers just can't be trusted to deliver fair contract terms," said Mr Oakes.

"They continue to use and abuse farmers as a tool to manage their own business risk, so we have no choice but to call for the regulation of dairy contracts.

"We want to see a flexible and innovative regulation that delivers fair terms for farmers and an equitable balancing of risk between farmers and buyers."

Mr Oakes added that as the UK leaves the EU, the dairy market would not be able to be commercially focused, innovative and competitive if buyers continued to live in the dark ages using unfair contracts to manage risk.

"It's time for buyers to look to the future, operate as proper commercial businesses and deal with farmers fairly. That's all we've ever wanted on dairy contracts – fair terms," Mr Oakes said.

JOURNAL : Farmers Weekly

A short film inspired by the gay son of a farmer is seeking to open up conversations about farmers who may be struggling in silence with their sexuality.

Two years ago Rupert Williams, who's father is a Lancashire dairy farmer, began working with award-winning filmmaker Matt Houghton, having researched homosexuality in rural areas some years earlier.

Part of his own investigation led him to contact Cheshire-based farmer-turned-chaplain Keith Ineson, who set up the only helpline dedicated to gay farmers in 2010.

See also: How gay-tolerant is the countryside?

Since then Keith has taken hundreds of calls from farmers who have nobody to turn to for support, often living in complete isolation or with family they feel they can't talk to for fear of causing upset or awkwardness. The helpline gets at least one new caller every week.

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It's well-known that suicide rates in agriculture are among the highest of any profession in the UK, especially among men.

Couple that with the fact that lesbian, gay, bisexual, transgender and queer (LGBTQ) people are at a far greater risk of mental health problems, which includes having thoughts about **ending** their lives, and you've got a recipe that puts gay farmers in an extremely high-risk category.

"There's no roadmap to doing this sort of thing and it was difficult for me growing up," Rupert explains, thinking about his own experiences as a gay man being part of a farming family. "There was a silence about it, a not knowing what to do. I knew that farming wasn't my world."

Today, Rupert lives and works in London as a social worker and has previously worked at the London Lesbian and Gay Switchboard, but his experiences of growing up on the farm prompted good friend Matt to start work on the documentary, titled Landline.

A sense of isolation

Rupert's feelings of isolation and confusion are precisely what this short film is aiming to help with. It takes a handful of cases where people from farming communities had called the Gay Farmer Helpline, showing a reconstruction of the moments and emotions described in their recorded phone conversations.

You can watch a trailer of the film below.

Landline | Trailer from Matt Houghton on Vimeo.

"Speaking to Rupert one evening, we got talking about what it was like for him growing up in a farming family as a queer man, and the unique sense of isolation that he felt," says director Matt.

"As we researched further, we began to understand the extent to which being an LGBTQ farmer was so heavily wrapped up in ideas of identity. Keith Ineson's helpline seemed a unique lens through which to explore these ideas."

Over the course of about a year, they collected stories and experiences from farmers who have dialled 07837 931894 – the Gay Farmer Helpline number.

A series of recorded telephone conversations form the heart of the captivating 12-minute film, funded by Film London and made with Pulse Films and production company Fee Fie Foe.

What may surprise viewers, though, is that not all of the case studies are sad and depressing – far from it in fact. There are cutting personal accounts that pull at the heartstrings, but Landline also features stories of falling in love, of stress and risk-taking and of overwhelming support from family, friends and the wider community upon coming out as an openly gay person in farming.

"These are stories about mental health, rejection and acceptance, but what the film also shows is that farming communities can be supportive," Rupert adds.

"I think part of the reason for doing this was a curiosity to see if there were other people out there like me. I thought that there must be others out there who are struggling with their sexuality. I wanted to shed light on that, see what other people's experiences were and ultimately raise awareness."

One thing viewers will notice about this film is that all five of the case studies are men, but that's not through lack of research or making the assumption that this is an issue that doesn't affect women.

While he's certain that isn't the case, Rupert admits that the team found it hard to identify LGBTQ women in agriculture and even those they did contact weren't keen to talk. This is a barrier that the documentary makers sometimes hit when speaking to men too, such is the fear of speaking out about who they are.

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“Some people were quite hesitant about telling their story but they wanted to. In the end they were quite eager to talk about their lives and I think some found it quite therapeutic to tell their story,” says Rupert.

It's good to talk

The short documentary has been screened at a number of film festivals in the UK and abroad and was picked as one of the British Film Institute's (BFI) Five Films for Freedom, branded the world's widest-reaching LGBTQ digital campaign.

Landline was watched more than 460,000 times during the 12-day London film festival BFI Flare, which showcases new and classic LGBTQ films from around the world. It has also won an HBO Documentary Short Film Award and will eventually be publicly available to watch online.

But ambitions for this candid, intimate and at times shocking short film stretch well beyond sparking ardent applause from the metropolitan scenes of London and gaining accolades from international film buffs.

“It is the honesty and openness of our contributors that made this film possible,” says Matt. “To me, it is defined by its intimacy but in depicting the very personal. My hope is that it poses questions about much broader ideas surrounding community, family and masculinity.”

Rupert wants Landline to strike a chord with farming communities and bring about something that's too often left wanting in these circles – willingness for an open and honest chat about feelings.

It might sound preposterously simple, but Rupert strongly believes that talking sets everyone involved on the right track to avoiding long-term pain, upset and lasting damage to relationships and mental wellbeing.

“I think by having a conversation people will become more aware of the impact that their views might have on others, like making them feel as though they can't come out – that is not acceptable. It's not a matter of ignorance, it's more naivety I think.”

JOURNAL : Farmers Weekly

Arable growers in the West Country face a constant battle to harvest grain at an acceptable moisture, so having a decent drying set-up is essential – even if they're expensive to purchase, fuel costs erode ever-decreasing margins.

But what if someone actually paid you to dry your grain? When it was introduced in late 2011, the government's Renewable Heat Incentive (RHI) offered exactly that.

Savvy farmers keen to make the most of that opportunity jumped at the chance, but many were confounded by an almost complete absence of off-the-shelf, turn-key biomass dryers on the market.

See also: Continuous-flow grain dryer transforms harvest

In 2012, Robin Blatchford, a beef and arable producer on the Wiltshire-Dorset border, found himself in exactly that situation and set out to put together his own set-up.

“We found ourselves in the position where, to cope with our increasingly late, wet harvests, combines were getting bigger and bringing the corn in faster,” he explains.

“But the drying side of things got left behind. We had a 30-year-old Alvan Blanch continuous-flow dryer that didn't stand a chance of keeping up with the combine, so inevitably we'd end up with heaps of wet grain backed up waiting to go into store.

“On top of that, operating the drier was a dusty job. I became sensitised to the dust and one year ended up getting quite ill as a result.

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"I decided enough was enough and resolved to build a proper ventilated floor store with the ability to draw moisture out of wet grain. The hope was that it would be far easier to maintain and would mean less exposure to dust."

Farm facts

Peckons Hill Farms, near Shaftesbury, Dorset

Farmed area: 396ha

Cropping: Winter wheat 113ha, OSR 57ha, spring barley 57ha, winter beans 57ha, organic wheat 6ha plus 107ha of organic grass, ELS and HLS areas

Stock: 60-cow suckler herd with followers kept through to heavy store weight

Machinery:

Tractors - Fendt 720 and 722, JD 6420-S

Loader – Caterpillar TH406

Combine – JD 9780i CTS with 25ft) header

Sprayer – JD 732 with 24m booms

Baler – Welger D4000 (2001)

Dryer – 1,200t ventilated floor store with Farm 2000 straw-burner

Staff: Robin Blatchford plus one full-timer and one part-timer

Making the money stack up

Wanting to make the most of the opportunities that the RHI presented, Mr Blatchford looked into the options for biomass burners capable of doing the job as well as replacing the old oil-fired heating systems in the main farmhouse and a cottage in the yard.

He was also keen on the idea of using a home-grown fuel source to gain some control over the costs of farm energy bills.

Initially woodchip was the preferred fuel source, but it quickly became apparent that the farm's woodland wasn't big enough to produce the volume of material required.

In addition, woodchip boilers were ruled out because of the high numbers of moving parts and consequent maintenance requirements. Instead, he turned to the idea of burning home-grown straw.

"It's not rocket science – you burn straw in a steel box with a water jacket around it. This hot water is passed through a big radiator that heats the air going into the grain store to dry the grain.

"We looked around and after talking to several people running straw boilers, I was convinced by their simplicity and reliability – there were a number out there over 30-years-old and still running."

"There seemed to be three options – Dragon Heat, Glen Farrow and Farm 2000. We settled on the latter because of its capacity and simplicity."

Getting the payments

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

At the time, RHI payments were based on the scale of the system – 8.7p/kWhr for anything up to 199kW and 5.2p/kWhr for anything above that.

Having plans in place for a 1,200t floor store, the calculated heat output of the suggested gas space heaters needed to be something close to 300kW to dry wet corn at a reasonable pace. A lesser burner would still do the job, albeit at a slower pace.

Although tempted by the higher payments for smaller boilers, Mr Blatchford opted for a 294kW Farm 2000 BB254H/2 boiler, which qualified for the less-lucrative payments.

“We had more flexibility for the future in being able to burn any size bale and, because it would need stoking less often, less hassle.

Critically, when we really needed it we would have the heat capacity to dry big tonnages of damp grain at a decent rate.

“It was a slightly off-piste project and because of that I felt we needed a bit of hand-holding. At the time there seemed to be very few people to do that.

Farm 2000 did not come out on farm but had an excellent manual to help guide us through the boiler installation and was very helpful on the telephone.”

Heat transfer

“The next step was to work out how we’d transfer the heat to the air being blown through the underfloor ducts.

“While the various boiler manufacturers could offer plenty of advice and expertise in plumbing their burners into traditional heating systems, no-one was able to supply me with the full package to dry grain.”

So Mr Blatchford set about designing his own system. Two key elements needed sorting – a heat exchanger and some means of storing heat.

He first used Farm 2000’s pipework plan and had a heating design engineer calculate frictional losses and flow rates and make some decisions on pump choice – double-headed Grundfos units.

Then, having taken advice from a heat exchanger manufacturer on flow rates and temperature drop (300 litres per min with a 10C temp drop through 3in pipe) and Lincolnshire-based fan manufacturer Pellcroft on the airflow required for the floor store, he was able to make some calculations on the size of heat exchanger required.

Armed with this information, he contacted Heat and Cooling Solutions in Southampton, which double checked the figures and suggested a large, single-core radiator would be the best way to avoid restricting airflow, assuming a 10C temperature drop in the water entering and exiting the heat exchanger.

For a cost of around £1,300, a monstrous 2.4m x 3.6m heat exchanger was fitted in an opening on one side of the heavily sound-baffled blockhouse hosting the two Typhoon fans.

Water tank heat store

Next it was the heat store. Farm 2000 had suggested installing the biggest insulated water tank available to give plenty of buffering capacity and avoid the need to keep the burner running 24 hours a day, but even bespoke-built heat reservoirs didn’t match the capacity required.

Flicking through the back pages of Farmers Weekly, Mr Blatchford spotted a Starkey Tankers advert offering 26,000-litre stainless steel ISO-container bulk liquid tanks for sale.

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So, for about £5,000, one was delivered and installed in the biomass boiler shed alongside the new grain store with various 3in tappings welded into it.

It came shrouded in a thin layer of insulation, but to keep the water warm for a decent spell a 100-150mm coating of spray-on foam was applied for an additional cost of about £700.

With everything in place it was then a case of plumbing it all in. Although big-bore pipework (3-4in) was used where possible, the system itself was kept very simple with straightforward flow and return lines from the boiler to the heat store and from there to the heat exchanger and back.

Controls-wise, things were kept equally uncomplicated. A conventional grain-store-style switch panel is used to manually activate the pumps.

Farm 2000 supplied a simple boiler control panel, triggering the single door-mounted fan to fire up as required and the air diverter valve to send air to either the top or bottom of the combustion chamber depending on the stage of the burn cycle.

Troubleshooting

With the set-up installed and running, things seemed to be working well, although the burner seemed to be a bit underpowered.

"When we first set it going I was impressed that everything worked as well together as it did," says Mr Blatchford.

"But I didn't feel the burner was running as it should, so I decided to turbo-charge it and set a pedestal fan running in front of the intake for the factory-fitted unit. Immediately we got a cleaner burn.

"After a discussion with Farm 2000, it helpfully suggested a much bigger 2.2kW fan unit and new burner control box as well, which I believe is now standard for this size boiler."

Time proven

Five years down the line, the system has run pretty much faultlessly with very few modifications and the old 13t/hour Alvan Blanch dryer is now up for sale.

As regards performance, it depends on how dry the straw is. Mr Blatchford has been surprised how cool the water can be to still be able to dry with relative humidity.

Critical to that has been the gantry-mounted **Harvest** Installations stirrer set-up.

"We burn two four-string D4000 bales per burn over about 4-5 hours. The only limiting factor in how often we burn is that you do not really want the embers from the previous burn to melt the strings and pop the next bales you put in before the door is shut or it gets quite exciting.

"We do have a large hose by the door for these eventualities but have not had to use it yet. The heat output from each burn cycle is generally between 800 and 1,000kW, equating to an RHI payment of about £26 per bale.

In a typical year, with 2,000 tonnes of grain to dry, the farm will generally get through 230 bales.

Putting the value of the straw at £10/bale at **harvest**, without taking RHIs into account, the fuel bill is about half what the old dryer used to cost to run.

On top of that, there's the heating bill for the house and cottage. Their heat consumption equates to about 150 bales/year, or £1,500 – a third of the previous oil cost.

"We've still got the oil boiler in the house as back-up and, of course, the Aga," says Mr Blatchford.

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Cash saver

The total investment in the system came to just shy of £100,000 but, with the RHIs alone bringing in around £10,000/year alongside the cut-price fuel bills, it's not hard to see the value of the set-up.

"I think the key thing in the success of our system has been its simplicity. If the water is slightly cooler, it's just going to take a bit longer to dry the grain.

"Most things we could mend if we needed to – I just hope Farm 2000 does not make the controllers too complicated in the future," he says.

"If I was to do the same thing again, the only thing I might change would be the size of the heat store to give us flexibility to hold more heat to use as required. Next time I might go for a 35,000 or 40,000-litre tank.

"Anyone with a 200kW+ biomass plant that is not busy in the summer who has an on-floor store could do exactly what we have very easily. It just needs a pump and heat exchanger plumbed into the existing system. It is so simple.

"There is nothing special about the on-floor store. I just use straw as opposed to gas or oil and get paid for doing it."

Crop conundrum

Initially Mr Blatchford tried burning a range of different materials in the Farm 2000 boiler, but he has come to the conclusion that wheat straw is the best bet.

"We tried old, damp bales of wheat to begin with, but they smoked terribly and produced no heat, so we quickly learnt that the drier the straw was, the better. We tried some miscanthus too and the heat output was phenomenal but it tended to smoke," he says.

"Rape straw was another option but invariably it gets cut green and has to be left to dryout before baling. In that time it generally gets several soakings, so you end up with a less-than-dry feedstock – that makes a huge difference to how much heat you get from a bale.

"Next we tried linseed – the energy value was huge (like napalm) but the burn cycle was completely uncontrollable – it would flare up to the point where it would run out of oxygen.

"Then it would start to pull air back down the flue and belch back out huge black clouds of smoke – it looked like cross between a steam train and a tractor puller. And, when I opened the inspection door to see what was going on, a 6ft flame shot out, singeing my eyebrows – a good lesson never to store straw near the burner."

"So we settled back on wheat straw. Often we'll RoundUp the field we plan to bale for the boiler so that we know it'll be properly dead and dry."

JOURNAL : Farmers Weekly

The livestock sector has won praise from a senior human health official after figures showed dramatic cuts in antibiotics use and almost total compliance with EU medicine laws.

During an AHDB Pork event last week, government chief medical officer Sally Davies said she was proud of the UK livestock sector for the work it had done to cut antibiotics use.

See also: Antibiotics use halved in the pig industry over two years

"You have halved antibiotics use in two years – we are aiming by 2020 to hit 99mg/population correction unit [PCU] and at 131mg/PCU we are well on the way," said Dame Sally.

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She added the use of medicines vital for human health, known as critically important antibiotics, had virtually ceased altogether and this had been achieved voluntarily.

Welcomed reduction

Dame Sally: "I can't thank you enough. We are making progress and I am proud of that."

She also told the meeting, held in conjunction with the National Pig Association and its magazine Pig World, that human medicine was lagging behind in its approach to antibiotics use.

"Let me be quite clear – the problem is biggest in human use and misuse of antibiotics.

"I recognise that and I am not into blaming our animal sector," she said.

But she stressed the progress must continue and more work needed to be done before there could be any let up in efforts.

"More than 70% of antibiotics used in the world are used by the farming community and the vast majority – over 70% of that – is used for growth promotion, rather than treating sick animals," she said.

European Food Safety Authority

Meanwhile annual monitoring carried out by the European Food Safety Authority (EFSA) has shown almost negligible use of veterinary substances and other contaminants in samples from more than 710,000 live animals and carcasses.

The EFSA is looking for substances such as antibacterials, growth steroids and other contaminants which include mycotoxins from fungi in feed.

The samples revealed 99.7% were clear of any contamination.

Importantly for antibacterial presence almost 99.9% of the samples taken, complied with EU Directives on residue levels.

JOURNAL : Farmers Weekly

Farmers are facing serious yield losses this **harvest** as the prolonged dry spell is piling pressure on crops, especially on light land.

Following a dry spring, a lack of rainfall in June could severely hit crop yields. If the dry summer continues, crops losses of 5-10% are widely predicted – with some farmers fearing much bigger losses.

The NFU says oilseed rape and winter cereals are generally performing well, but spring crops are struggling to thicken out and are "very patchy".

See also: Crop Watch – growers count the cost of drought and blackgrass

Longer term, a shortage of straw could compound problems for farmers. But the prospect of higher crop prices this **harvest** could ease some of the pain.

Andrew Blenkiron, who manages the 4,400ha Euston Estate, south of Thetford, in Norfolk, expects to start combining winter barley next week – two weeks earlier than usual.

Wheat crops 'looking dead'

However, he said winter wheat crops grown on Breckland sands are "looking dead".

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"We've got 400ha of wheat in the ground. Last week, I was thinking we are going to get half the yield out of it. Now, I'm not so sure," he said.

"In 2011, we saw average wheat yields of 3.5t/ha. I'm afraid that's where we're heading again."

Maize and sugar beet crops are also being hammered by the heat and need rain. If the dry summer continues, getting next year's crops in the ground will be a "massive challenge".

The irony is, Mr Blenkiron had to wait until the end of April to drill spring crops because it was so wet. Since then, the farm has had 4mm of rainfall in seven weeks.

On the positive side, there is plenty of water in reservoirs to irrigate potatoes and high-value root crops, including carrots and parsnips.

'Mixed picture' in Lincolnshire

In Lincolnshire, Frontier technical manager Christine Lilly is reporting a "mixed picture" for the county's harvest prospects.

Ms Lilly said: "Spring barley doesn't look too bad because Lincolnshire didn't have some of the worst conditions. This hot weather will have an effect on cereal yields, without doubt. But it would be a stab in the dark to say how much."

In Wales, the Welsh government's Farming Connect service is advising farmers to plan ahead to reduce further impact on feed supply and livestock.

Technical officer Abigail James said: "Many need to start putting a plan in place as little rain is in the forecast."

Dry spell 'set to continue'

The Met Office says the dry, hot weather will continue this weekend and into next week, with 32C possible in some locations.

Forecaster Dan Harris said more changeable weather is forecast in the North and North West at the start of July.

But he added: "July as a whole still looks most likely to see a good deal of dry and fine weather, with warmer and drier than average conditions."

Make it rain but not at harvest, Essex grower urges

NFU deputy president Guy Smith says drought conditions are hitting crops on his Essex farm, which is recognised as the driest farm in the UK.

Following a dry May, no rainfall has been recorded so far in June at Smith Farms, in St Osyth, and cereal crops are in serious need of a drink of water, especially on lighter land.

Mr Smith said: "My dad's favourite saying was: 'It's a dripping June that will keep your farm in tune.'"

"You can have everything right through the growing year, but if you do not get some rain in June, harvest will be impacted."

Wheat crops on heavy land are standing up "remarkably well", but on lighter land over the sand and gravel, they are struggling.

Spring cropping, especially barley, is looking "pretty disastrous" due to the "triple whammy" of late drilling after a wet April, followed by a dry period for establishment and scorching weather in June.

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“As every day ticks by with no rain and high temperatures, the harvest gets smaller and smaller,” said Mr Smith.

Although some rain would be welcome now, Mr Smith is wary of ending up being blamed for a wet harvest.

The current dry spell has rekindled memories of drought in April 1997 when a genuine Native American was invited by The Sun to perform a rain dance on his farm.

After that, the heavens opened in May and it turned in to a pretty good harvest.

But any rain now will be two months too late, said Mr Smith.

JOURNAL : Farmers Weekly

Grain markets are being pulled in opposite directions, with drought and high temperatures pushing prices up, but political and trade tensions limiting the rises.

Crop concerns in Russia and parts of northern Europe – including Germany, Poland and Denmark – and more widely on other continents, along with another two weeks of hot weather forecast for the UK, have kept prices up.

At the same time, US trade measures against China and the EU are making all markets nervous. US corn, soya and wheat futures all fell on news of threatened US-China measures, although recovering some of this ground.

See also: How to prepare grain stores for harvest

Midweek saw UK feed wheat prices for August up by an average of more than £6/t on the week. The range has widened slightly from £147/t (Gloucestershire and West Midlands) to £168/t (Hampshire and West Sussex).

It has been clear for some time that the UK will be a net importer of wheat again in the 2018-19 season. Although spring crops are most at risk, every day of hot, dry weather reduces the prospects for the size of the UK wheat crop, expected to be between 14m tonnes and 14.5m tonnes.

Growers committed a fair volume of wheat forward when the market reached £150/t, but have largely withdrawn since prices rose above this level, say traders.

“I would advise holding back for now on new-crop wheat,” said GrainCo trader James Clarke, based in South Shields, Tyneside. “It’s early days yet and the news of Russia’s harvest is only just filtering out.”

Much of the grain imported into north-eastern ports traditionally comes from Nordic countries and Germany. However, Denmark, usually a reliable supplier, is having its driest season in 59 years, so the UK may have to look further afield to Latvia and possibly Lithuania for new-crop supply, he said.

However, freight availability is tight and higher oil prices have also pushed up shipping costs.

The UK’s traditional early barley export customer, Spain, has had a good harvest and so demand for UK feed barley exports could be tricky early in the season, although there was likely to be demand from Ireland, said Fengrain managing director Rob Munro.

Stronger demand from third countries was likely to develop later in the season, he said.

As new-crop futures prices have risen and old crop fallen, the gap between the July and November London feed wheat contracts has risen from £2.25/t in late May to more than £11/t.

What is driving grain market changes?

Threatened US trade measures against China and the EU are putting downwards pressure on grain markets

Hot, dry weather and concern over yields pushing prices up, likely to rise further

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London November 2018 wheat futures closed last week at £159/t, a rise of £1.25/t above over the week. Midweek it stood at £160/t

Market could move on US Department of Agriculture final spring-planted area and early June stocks figures, due out late on Friday (29 June)

Brazil's corn crops are at risk from dry weather

Australia has had some rain, but not enough and soil moisture levels are falling

China is also at risk of up to a 20% drop in wheat output after very dry season

Wet weather has helped soil moisture in developing US maize crops – July temperatures will determine final yield

US winter wheat **harvest** 41% complete, 2% ahead of last year, with yields generally in line with expectations. Spring wheat crop rated 78% good to excellent

72% of French maize crops rated good/excellent in the week **ending** 18 June, down from 74% the week before and 84% a year ago, but above 2016 levels

Old crop

Old-crop wheat is in a strangely mixed and very local market, with some regions seeing prices for July wheat rise by as much as £14/t over the week to Wednesday (27 June) and a few experiencing a fall of up to £4/t.

The highest prices for feed wheat are typically in the deficit areas of the two north-eastern bioethanol plants, but this week Essex, Hertfordshire, Hampshire and West Sussex topped the table, with July ex-farm values of up to £173/t.

These counties saw rises of up to £14/t in old-crop feed wheat prices, reflecting local shortages driven by higher feed demand in the hot dry weather.

Many port areas have ample stocks of feed grain, supplied by imports, and compounders are well supplied in the short term. Markets are so local that traders have warned old-crop prices could fall further in some areas

Russia prospects

Combining wheat has begun in Russia and barley is reported to be coming off at 10-15% lower yields than last year.

The Russian Agriculture Ministry estimated the country's grain crop at 100m tonnes recently, well down from the 135m tonnes recorded last year, due to late spring planting and the recent dry weather in southern parts of Russia.

Forecasts for Russian wheat output vary widely, from 67.4m tonnes to 73.1m tonnes. The lowest of these would mark a 21.5% fall from 2017's record production, but would still be the country's third-largest wheat crop ever.

Russia is nevertheless expected to top the league of world wheat exporters in the 2018-19 season.

JOURNAL : Farmers Weekly

A pair of petrol-head ag students are preparing to drive from London to Mongolia to raise a heap of cash for a charity helping farmers struggling with mental health issues.

Harper Adams agrics Jon Glen and Alan Walker are gearing up for the drive of their lives as they embark on a 15,000-mile round trip across the globe in a small, high-mileage two-seater sports car.

Starting on 15 June, they'll be recording their epic voyage through 22 countries in about seven weeks by posting regular updates and videos on social media and on their website.

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See also: How to get a job as a farm manager

The pair of agricultural engineering students have been fettling their 22-year-old Mazda MX-5 bought for next to nothing, fitting a sump guard to protect the car's underbelly and replacing the suspension in a bid to make the journey as smooth as possible.

The aim is raise more than £5,000 for the Farming Community Network (FCN) and increase the awareness of mental health problems in farming.

"Having had my own battle with mental health while farming, I appreciate the seriousness of their cause," says 23-year-old Jon.

"It's a charity that's very close to my heart and Alan is hoping to raise at least £500 for Kettering General Hospital's Charity Fund.

"The suicide rate in agriculture is nearly three times that of the accidental death rate," he adds.

"On average 84 people in the British agricultural community take their lives each year. It comes down to charities like the FCN to be there for farmers who are struggling with mental health.

"As well as fundraising, I will be documenting my emotional and mental journey through a video diary called My Mental Journey to show how anyone could battle with mental health and how important it is to talk about it."

In a challenge worthy of Top Gear, Jon and Alan will be tackling some of the most challenging roads in the world, including the famed Pamir Highway on a route that is the equivalent to driving twice around the moon.

The duo, who've dubbed themselves the "MX-Farmers", will take a 10,000-mile route through countries in the Middle East and Asia to Mongolia before making a turn trip to the UK via Russia, taking the total distance covered to a back-aching 15,500 miles.

They say they bought their budget two-seater British Racing Green machine "for a packet of crisps and piece of gum" and fully acknowledge it isn't the ideal car to drive halfway around the world in.

"This is a car made to be driven, to be enjoyed, to be experienced. However, dirt roads like those in Mongolia might pose an issue. It could rival the Land Rover Defender for a car made of the most rust," says Jon.

"One of the biggest hurdles to overcome is emphasising that people need to talk about mental health and often this can be the first step to overcoming problems in ones own mental well-being."

To find out more about Jon and Alan's mental adventure, visit their website. To donate to their fundraising efforts, go to their JustGiving page.

JOURNAL : Farmers Weekly

A Preston farmer who mislabelled barn eggs as free range will have to pay back every penny of the £500,000 he made, an appeal court judge has ruled.

Anthony Clarkson, 62, of Back Lane, Whittingham, had already been served a 30-month jail term at Preston Crown Court in May 2016.

He was then ordered to pay back £505,381 at a confiscation hearing in September last year, or face five years imprisonment.

See also: Farmer faces jail for fraudulent sale of 'free-range' eggs

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Mr Clarkson had been convicted of two counts of fraud, Mrs Justice Nicola Davies told London's Appeal Court on Wednesday (20 June).

The egg producer and wholesaler made a "significant profit", having bought barn eggs at 58p-85p/doz and sold them as free range at £1/doz.

'Intellectual difference'

Lawyer Rachel Cooper, representing Mr Clarkson, argued that the amount he should have been ordered to pay back was much smaller.

It should have been £133,111, she suggested, a figure based upon the difference in price between the barn and free-range eggs.

"In reality, the only difference between the barn eggs and the free-range eggs was essentially an intellectual one," claimed the barrister, pointing out that both systems house hens in similar accommodation.

While in law a distinction is made between barn and free-range eggs (in that free-range hens must have access to the outside), "in practical terms the difference is small", said Ms Cooper, and the fine was "disproportionate".

But Mrs Justice Davies, who was sitting with two other judges, said: "The court agrees with the approach taken by the judge. Clarkson's benefit should be that he received as the result of committing his fraud."

To account for his expense of buying the barn eggs would lend a "measure of legitimacy" to his fraudulent enterprise, the judge added.

JOURNAL : Farmers Weekly

All the money currently spent on the Common Agricultural Policy in England – and possibly more – should be transferred to a new "public money for public goods" scheme in England, if farmers are to be incentivised to take part.

That is one of the key demands from the CLA, which has published its detailed proposals for a Land Management Contract (LMC) to replace the Basic Payments Scheme following a post-Brexit transition.

The LMC concept was first mooted by the CLA in July last year. The idea is to give farmers a menu of options for managing land to deliver public benefits.

They will effectively sign a contract with government, receiving payments based on what they contribute, rather than the amount of land they own.

Policy report

These ideas have now been fleshed out in a new report from the CLA called The Land Management Contract – Design and Delivery in England, a "positive, progressive and pragmatic" policy for the post-Brexit era.

The LMC should not be the only tool, the CLA says, but should be one part of a wider policy "to boost profitable farming and forestry through improved productivity, competitiveness and resilience within a thriving rural economy".

But a new contract with government should also be used to deliver things such as clean water, carbon storage, enhanced public access, biodiversity, heritage and sustainable farming practices – things that are not normally rewarded through any normal market mechanism.

Two prerequisites for introducing LMCs

UK farmers should continue to have good access to European markets

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Agricultural goods produced to lower standards should not be allowed to undercut British farmers

Proper funding

The paper emphasises that, while a new public goods scheme based on LMCs would present significant opportunities for environmental improvement, “these benefits will only be delivered if the new scheme attracts farmers and land managers by making good business sense”.

“This will require the government to commit to transferring, over time, at least the current CAP spend into the new public goods scheme, to ensure sufficient incentive,” says the CLA. For England, that would mean spending of £2.2bn a year, or more.

CLA president Tim Breitmeyer says his organisation has advocated incentives for land managers to deliver public goods for a long time. “But this policy will only succeed if it sits alongside a clear plan for supporting profitable food production, through a transition period and for the long term,” he adds.

“This means sufficient investment into the scheme, while avoiding unnecessary complexities and burdensome red tape. It also means long-term guaranteed payments so that farm businesses can have the certainty that is crucial in planning for a resilient future.”

What the Land Management Contract looks like

The CLA sets out four key elements to its LMC proposal, insisting that taking part should be a “commercial decision for land managers” and that it should be “a choice, not an entitlement”. There should be no requirement to be an “active farmer”, it adds, saying anyone who can provide public benefits should be eligible.

Four elements:

1. Universal LMC. This should be available to all land managers, with a menu of options to choose from, such as animal welfare, nutrient management, soil health and climate change adaptation.

The scheme should be “broad and shallow” in terms of what is required, with different activities attracting different points and rewards.

A premium should be available above a certain points threshold. The CLA favours schemes that last for three to 10 years, with a “rolling application window”, so that people can apply at any time.

Woodland management and sustainable farming practices are an integral part of the Universal LMC.

2. Universal Capital LMC. This part of the plan should also be available to everyone, with one-off payments for infrastructure improvements that deliver public benefits.

Designed to complement the Universal LMC, this money could be used for things such as fences (to keep livestock out of water courses), woody dams (to slow flood waters), manure storage (to reduce ammonia emissions), or enriched rearing systems (to improve animal welfare).

Again, the CLA favours a rolling application window, and suggests co-funding with third parties, such as water companies, which may benefit from some of the measures.

3. Enhanced LMC. This is designed to encourage more complex land management projects that are targeted at improving the wider natural environment, or enhancing whole landscapes.

It also seeks to encourage and reward collaboration among groups of landowners and other parties. This would be open to competitive tender and involve both one-off and ongoing payments.

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Initially, payments could be linked to the actions taken, but in the long-run the aim is to base payments on actual results. (Natural England is currently trialling two results-based projects.)

4.Landscape scale restoration projects. While the Enhanced LMC is all about enhancing the natural environment, this last part of the framework is to do with restoring degraded landscapes across large areas.

Again, this is best undertaken on a collaborative basis, with applicants competing for a finite budget. Projects will need to exceed 5,000ha and bring in funding from outside central government.

Why a points based system?

Allocating points allows different values to be linked to different outcomes. A land manager could then choose to focus on a small set of high-scoring activities, such as woodland creation or pollinator strips, or make more numerous, but smaller changes across their whole farm.

What about the money? Will it be worth it?

To attract farmer buy-in, a new LMC needs to be suitably flexible, must fit in with existing farm management practices, and must come with decent advice and training, says the CLA. But above all, payment rates must be attractive.

"It cannot be assumed that, without BPS, land managers will automatically apply to any source of government funding," the report says. "How future schemes are designed, implemented and incentivised will determine whether land-based businesses will engage with them."

The CLA explains that, under EU and WTO rules, current payments are restricted to "income forgone" and "costs incurred" in any environmental projects. This has discouraged more efficient farmers from getting involved, and fails to prioritise activities that deliver multiple benefits.

But the CLA believes the EU is taking too narrow a view of WTO rules, which are really about avoiding trade distortion, and says the UK government can and should go further. "Income forgone and cost incurred should be the floor for any payment rate," it says. "If the government wants to improve the environment, it will have to provide a more attractive proposal."

One way of doing this would be to base "income forgone" on the top performing farms, rather than just taking the average. Giving more points to activities with greater public benefit will also achieve better results.

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Farmers Weekly says

The Land Management Contract (LMC) idea floated by the CLA last July seems very much in tune with the Environmental Land Management (ELM) concept recently proposed by Defra secretary Michael Gove in his "health and harmony" consultation. Indeed, it is almost as if he has influenced his thinking.

If that is the case, there seems every likelihood that the model now described in more detail by the CLA may bear some real resemblance to the type of scheme that eventually sees the light of day at the end of the Brexit process.

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The latest CLA document certainly has much to recommend it. For example, the idea of a multi-tiered system, with a “broad and shallow” scheme for the masses and a more upmarket option for those with grander ideals, makes good sense.

So too does having a rolling application period, rather than enforcing a specific deadline that only adds to the bureaucratic burden. And a points-based system of payments will make it easier to prioritise those areas of public goods that offer the greatest benefits.

Crucially, the CLA also emphasises that any future LMC/ELM – call it what you will – should not be the only thread of a new agricultural policy. Public money should also be available to bolster farm productivity and help farmers deal with market volatility. Supply chain inequality must also be addressed.

As ever, though, it will come down to money. Not only must any new LMC/ELM be easily accessible to the vast majority of farmers, it must also reward them in a way that enables them to see a positive return from the time and capital they will have to put in.

Mr Gove should bear this all in mind as he moves on to the next phase of post-Brexit policy formation.

JOURNAL : Farmers Weekly

Agricultural machinery dealer RW Crawfords, based in South Woodham Ferrers in Essex, has invested £3m in a new parts and workshop store on land it owns opposite Writtle University College in Chelmsford.

The move is due to take place in the coming months and will see full operations relocated to the new site after 38 years in south Essex, with building works on track for an open date in June 2018.

See also: Workshop legends: We visit Lincs kit dealer Andy Dixon

A 22,000sq ft steel-framed building is already up and will house offices, showrooms and workshops, with more than £5m worth of Agco machinery along with Isuzu pickup trucks on show.

There will also be a dedicated student training room, which will allow Writtle students on both college- and university-level agricultural courses access to the latest machinery and an insight into a large-scale dealership.

JOURNAL : Farmers Weekly

The head of EU farmers' lobby Copa-Cogeca has issued a withering attack on plans to cap support payments for farmers.

European farmers and agri-co-operatives met in Brussels on Friday (15 June) to urge the EU to minimise the “severe impact” of subsidy cuts on EU farmers – and they called for a fair deal for farmers on future trade agreements.

Copa president Joachim Rukwied said: “We are disappointed with the EU Commission proposal on the future CAP.”

See also: EU plans 100k limit on farm payments under new CAP

“It is unacceptable that more and more is being asked of farmers in terms of respecting tough food safety, welfare and environmental requirements for less and less money.”

Mr Rukwied spoke out on behalf of the 66 presidents of farmer and co-operative organisations across the EU, after details emerged last week of the European Commission's plans for the future of the Common Agricultural Policy (CAP).

100,000 subsidy limit

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Brussels has proposed a 100,000 (£87,000) limit on payments to farmers under the next round of the CAP (2021-2027), which is due to be implemented after the UK leaves the European Union.

A leaked document had earlier suggested that payments to EU farmers could be limited to £52,000.

Mr Rukwied said it was a "major concern" that the technology toolbox farmers rely on to maintain their competitiveness "is being eroded every day".

Earlier this year, the EU announced plans for a total ban of neonicotinoid pesticides to cover all outdoor crops. The commission is also coming under intense political pressure from environmental lobby groups to ban the popular weedkiller glyphosate.

Gove outlines plans

Defra secretary Michael Gove indicated last week he was unlikely to approve plans to cap the amount of money paid to the largest landowners after Brexit.

He had previously proposed an upper yearly limit of £100,000 per landowner, which would free up about £150m for the environment and other public goods.

Mr Gove told MPs Defra was considering alternative plans, contained in its Health and Harmony consultation, for "everyone to take a small slice reduction".

An industry farm policy expert told Farmers Weekly: "If you compare the future CAP models to now, everything looks really gloomy [for farmers].

"Even if we had stayed in the EU, there would be the same problem."

Mercosur warning

Meanwhile, Cogeca president Thomas Magnusson warned that the potential issue of free-trade agreements could seriously undermine EU farmers' ability to compete.

In particular, Copa-Cogeca is concerned that standards could be weakened or farmers could be subjected to unfair competition in an EU trade deal with the South American Mercosur states.

JOURNAL : Farmers Weekly

Brussels has proposed a 100k (£87,000) limit on payments to farmers under the next round of the CAP, due to be implemented after the UK leaves the European Union.

EU farmers will also be expected to implement more environmental measures in return for money – although not to the extent proposed by Defra in the UK.

See also: Brussels leak points to £52,000 aid cap for EU farmers

European farm commissioner Phil Hogan said the proposals delivered on the commission's commitment to modernise and simplify the CAP.

They would ensure a more resilient agricultural sector in Europe while increasing the ambition of the CAP in relation to the environment and climate change, he said.

At the same time, the new CAP would ensure fair and better targeted support of farmers' income.

An earlier leak had suggested a cap of £52,000.

Formal proposals

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The main features of the commission's formal proposals are:

1. A new way of working Member states will have more flexibility in how to use their funding allocations, allowing them to tailor programmes for farmers.

Member states will also have the option to transfer up to 15% of their CAP allocations from direct payments (Pillar One) to rural development (Pillar Two) and vice-versa.

2. A fairer deal through better targeting of support Direct payments will remain a key part of the policy, the commission says, ensuring stability and predictability for farmers.

Direct payments will be reduced above 60,000 and capped for payments above 100,000 per farm in a bid to ensure a fairer distribution of payments.

Small and medium-sized farms will receive a higher level of support per hectare. Countries will have to set aside at least 2% of their direct payment allocation for new entrants

3. Higher ambitions on environmental and climate action The new CAP will require farmers to achieve a higher level of ambition through both mandatory and incentive-based measures.

Each member state will have to offer eco-schemes to support farmers who go beyond mandatory requirements, funded with a share of their national direct payments allocations.

4. Greater use of knowledge and innovation A budget of 10bn from the EU's Horizon Europe research programme will be set aside for agricultural research and rural innovation projects.

Member states will be encouraged to use big data and new technology to monitor farms and payments, reducing the need for on-the-spot checks.

The new CAP is scheduled to take effect from the start of 2021 and will not apply to the UK, which is due to leave the European Union on 29 March 2019.

However, the UK will remain a de facto part of the CAP until the end of the Brexit implementation period, which is currently scheduled for December 2020.

JOURNAL : Farmers Weekly

A Scottish farm leader has accused Edinburgh City Council of having an "anti-meat agenda" after it introduced a vegetarian menu for schoolchildren.

Jim McLaren, chairman of Quality Meat Scotland (QMS), hit out after the local authority introduced the Meat-Free Monday (MFM) initiative into primary schools.

Referencing the support of former Beatle Paul McCartney for the campaign, Mr McLaren said it portrayed an inaccurate image of Scotland's meat industry.

See also: Meat is crucial in balanced diet, Gove tells farmers

Speaking at the Royal Highland Show, he said: "We know that the Meat-Free Monday campaign has a high-profile vegan agenda backed by the McCartney family.

"The video on the homepage of the MFM website shows livestock production images from outside Europe, never mind outside of the UK."

Animal welfare friendly

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Scottish systems of production – which were animal welfare friendly – were a world away from the industry portrayed in the film, Mr McLaren said.

The film shows water abstraction from deep underground being used to irrigate land growing maize to feed to cattle standing in welfare-limiting feed lots.

Mr McLaren said: “The distinctions can be hard to explain to an urban-centric population with an ample choice of food.”

In moves to support animal agriculture and avoid consumer confusion, France has banned the use of certain animal names to describe plant-based alternatives.

“Vegetarian sausages and soya milk are no longer acceptable legal descriptions in France – and rightly so,” said Mr McLaren.

“I look forward to similar legislation being brought to the Scottish parliament as a matter of urgency.”

Council drops meat

Earlier this year, Edinburgh became the first local authority in Scotland to drop meat from its council-run lunch menus in primary schools every Monday.

Edinburgh City Council said primary pupils in the capital were helping to improve the environment, while boosting their own health by participating in the Meat-Free Monday campaign.

The council said Edinburgh was now just one of many places where schoolchildren were afforded a better diet and a chance to learn more about their health and the planet.

Schools across England and Northern Ireland – as well as in Brazil, South Korea and the USA – had also signed up to the campaign, it said.

JOURNAL : Farmers Weekly

Farm leaders have agreed a list of principles they want the government to put at the centre of post-Brexit agriculture policy.

Representatives from 15 UK farming organisations met on Friday (11 May) in Belfast for discussions on how policy should be agreed among devolved nations.

In a statement, the organisations called on the four UK governments to respect and maintain the current devolution settlement of policy and regulation to the constituent parts of the country.

See also: Foliar fertiliser could benefit farmers in post-Brexit world

“A guiding principle should be that no single country determines or curtails UK policy in the rest of the UK,” it said.

The UK governments should take every step to retain and protect single market access for food, agricultural commodities, live animals and plant and plant products throughout the UK, they added.

In developing distinct agricultural policies to replace the Common Agricultural Policy (CAP), farm ministers across the UK should ensure potential differences in application of agricultural policy do not adversely affect trade within the UK.

Common frameworks

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Ministers should maintain common frameworks across a broad range of policy, including biotechnology, organic farming, animal health – including the movement of animals and control of disease – maximum residues, minimum standards on specific commodities, food labelling, plant protection products and plant variety rights.

But the organisations said neither England, Scotland, Northern Ireland or Wales should be allowed to develop rules or policy that threatens to curtail access for other parts of the UK to international markets.

The leaders welcomed the UK government's commitment to provide the same cash total in funds for farm support as is currently paid out under the CAP (Roughly £3bn/year).

But in the longer term, with the development of a new domestic agricultural policy, at least the same level of money in agriculture should be ring-fenced, they insisted.

The meeting of the UK Farming Roundtable was chaired by NFU president Minette Batters.

JOURNAL : Farmers Weekly

Government plans to phase out direct payments must be fair for all farms regardless of size – rather than targeting larger recipients first, says the NFU.

The union made the recommendation in its response to Defra's Health and Harmony consultation on proposals to reform farm support after the UK leaves the European Union.

The consultation, which closes on Tuesday (8 May), is seen as a key opportunity for farmers to have their say on shaping the future of agriculture and the countryside.

See also: Defra's policy consultation – Key points and how to respond

Future policy and support “should be fair and equitable to all active farm businesses, irrespective of size or system,” says the NFU response.

The government should also provide enough time and certainty for farm businesses to plan their future – as well as opportunities for them to adapt and invest, it adds.

The NFU says a future domestic agricultural policy should seek to maintain a level playing field across the UK and with respect to the UK's main competitors

Defra wants to replace direct payments with a new system of “public money for public goods” largely based on rewarding farmers who undertake environmental measures.

Phasing out

It has proposed a transition period of five, seven or 10 years – including the gradual phasing out of direct payments, possibly from 2020.

Defra has proposed three ways of phasing out payments – “progressive reductions” for most farmers, a straight cap on the maximum amount received or a combination of the two.

The NFU says future policy should ensure public investment in agriculture promotes productivity, while fairly rewarding environmental delivery and managing market volatility.

And it warns: “Direct payments are currently the most substantial and effective tool that farmers have to mitigate this volatility.

“While farmers in the UK share the aspiration of reducing their reliance on these payments, it should not be arbitrarily pursued without sufficient and robust policy replacements.”

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'Significant role'

The NFU says direct payments will continue to play a significant role in underpinning the financial viability of many farm businesses in the short to medium term.

And it says any reduction in Basic Payment Scheme (BPS) payments should be fair and equitable for all farms, rather than focusing on larger recipients.

"In our view this means the same percentage reduction should be applied to all recipients, regardless of claim size," says the NFU response.

"This redirection of funds must be to the direct benefit of active farmers whose businesses will be striving to manage the impacts of the loss of income resulting from BPS reductions.

"The scale of cuts must be commensurate with the sums needed to fund the alternative programmes and pilots envisaged during the agricultural transition, and no more."

JOURNAL : Farmers Weekly

A technique which identifies the presence of mud snails infected with fluke is being used to help Welsh farms determine fields posing the greatest risk to animals.

The presence of mud snails is a clear risk factor for fluke infections in livestock as the snails are integral to the fluke's lifecycle.

But detecting these snails is not easy. Snails are not present in all wet areas, as commonly assumed, and trained staff are needed to identify potentially suitable habitats, find these tiny, elusive creatures and differentiate them from other non-fluke transmitting snails.

See also: A guide to managing fluke on your sheep farm

Hefin Williams, a lecturer in agricultural environment at the Institute of Biological, Environmental and Rural Sciences (Ibers) at Aberystwyth University says this process would be impractical on a national scale because it is costly and time-consuming.

However, an environmental test that detects mud snail DNA in water has been developed at Aberystwyth University and could be the solution.

How the test has been trialed on farms and the results

Dr Williams has been leading a joint study between Farming Connect and Ibers into the use of this test on Welsh farms.

During the project potential mud snail habitats were surveyed on five farms – one dairy and four beef and sheep.

Farms were visited up to four times between May and October 2017, when wet habitats were repeatedly surveyed.

Water from the habitats was filtered through DNA-capturing filters, which were then screened for the presence of mud snail. Meanwhile, livestock groups infected with liver fluke and rumen fluke were identified using faecal egg counting (FEC).

The test identified mud snail DNA in each habitat where snails were physically detected and in other habitats where no snails were seen.

"The test also picked up both liver fluke and rumen fluke DNA in mud snail habitats which is also promising as we look to develop this test further in future and use it to assess fluke infection risk in fields," explains Dr Williams.

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Using maps to identify risk

Each of the farms was given a detailed map assessing fluke infection risk in each area.

Rhys Jones, who was involved in the research during his PhD, adds: "It's hoped these maps will assist farmers in making informed livestock management decisions in consultation with their vet to assist with fluke control.

"Interventions to reduce contact between livestock and fluke on pasture such as fencing and draining can be costly and being able to specify and prioritise which habitats pose the most immediate risk should be valuable information to manage fluke risk in the future, especially as the threat of anthelmintic resistance grows."

Of the five farms involved in the latest research, some have since fenced off newly identified mud snail habitats from livestock, as well as adapting their fluke control programme to test livestock in the spring to ensure animals shedding fluke eggs on to mud snail habitats are identified via FEC testing and treated.

Fluke prevalence in Wales

This study comes two years after a team from the Institute of Biological, Environmental and Rural Sciences (Ibers) at Aberystwyth University – a Farming Connect innovation site – published research on the prevalence of rumen fluke on Welsh farms.

That study, based on a survey of 100 farms, found:

61% of farms sampled were positive for rumen fluke

68% were positive for liver fluke

And co-infection of both flukes was seen on 46% of farms

Only 17% were negative for both

Research Farm: Hafod Farm, Llandysu

Farm facts

Spring-calving herd of 140 Friesians and Norwegian Red crosses

Yielding an annual average of 5,000 litres at 3.50% protein and 4.15% butterfat

Milk sold to Arla

Both liver and rumen fluke were detected at Hafod Farm near Llandysul, with levels of rumen fluke the highest recorded by the research team.

Six snail habitats were identified at this 49ha dairy farm, which Liam and Annie James farm in partnership with Annie's father, Clive Lott.

Snails in three of these habitats were infected with liver fluke and rumen fluke infection was detected in snails in two of the sites.

"Given the number of snails seen in the habitats and the sizeable nature of these habitats it would be reasonable to conclude they pose a significant risk of infection to livestock grazing the surrounding areas," says Hefin Williams, a lecturer in agricultural environment at Ibers.

The family are in their fourth year of farming at Hafod and, although they are aware that poor drainage has resulted in some very wet areas, they were completely taken aback by the sampling results.

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"We'd had reports from the abattoir of liver fluke in a couple of cull cows, but we were completely unaware we had rumen fluke in the herd," says Mr James.

"Liver fluke and juvenile stages of rumen fluke can affect milk yield, but you wouldn't be able to tell by looking at a cow whether she was infected."

The study has been valuable on two counts. Instead of using a flukicide that treats only liver fluke, a product that covers both rumen and liver fluke is now administered during the dry period.

The family is also able to prioritise which areas to drain and fence off from livestock.

"We have put some temporary fencing up as a short-term measure," says Mrs James.

The farm has required a lot of investment, but she says this study has shown that fencing and drainage in certain high-risk areas must be a priority.

"It is not going to be a magic fix, but the awareness and the changes we are putting in place should help."

Mr James says that dealing with the fluke issue should lift milk yields.

"Getting on top of the problem will require investment but some of the work should pay for itself if we can produce more milk."

JOURNAL : Farmers Weekly

A dog owner stood by and watched as his out-of-control pet husky worried a flock of North of England Mules.

Shocked sheep farmer James McIntosh caught the dog attacking his sheep in a 4ha field at Pophleys Farm, near Radnage, Buckinghamshire, as he drove past in his Land Rover on Friday (4 May).

Mr McIntosh leapt out of his vehicle and ran to the aid of his sheep, who were being chased round in circles by a brown husky dog.

See also: The law on shooting dogs – critical facts farmers must know

Although he would have been within his rights to shoot the dog, Mr McIntosh was not carrying his shotgun at the time of the incident.

As the unflustered dog owner stood by, Mr McIntosh spent several minutes trying to catch the dog. He eventually cornered the animal after began struggling for breath.

Sheep warning

At the entrance to the field, a home-made sign, made out of plywood, states: "Sheep. Please keep your dog on lead."

"There are sheep all over our farm. The owner knows there are sheep there, but he still let his dog off its lead.

"He was holding the lead. The dog had a harness on it, but the owner did nothing to try to stop it.

"He never said sorry. The last owner whose dog we caught worrying sheep was devastated."

On this occasion, it appears that none of the 70 ewes and 70 lambs was physically injured. However, one three-week-old lamb is displaying signs of stress.

Mr McIntosh described the dog owner as a respectable man, aged in his 50s.

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'Weak excuses'

He said the dog owner made "weak excuses" about the gate, but it couldn't have been more secure.

He told Mr McIntosh his dog ran ahead of him under a gate and then jumped over a stile. He thought that because there were no sheep in the field last time it would be empty.

Mr McIntosh has reported the incident to police to investigate to see if he is liable for any compensation, or if any action should be taken against the owner.

"Luckily the lambs are all three to four weeks old. But if they had been a couple of weeks old, it could have been really bad," said Mr McIntosh.

"Despite so many public awareness campaigns on sheep worrying, I think some dog owners are disconnected. They are not involved with the farm. They are so delusional."

JOURNAL : Farmers Weekly

A Staffordshire farmer in dispute with Natural England over a joint Higher Level Stewardship (HLS) agreement has taken his case to the parliamentary ombudsman.

Tenant Ian Sadler, who farms at Hill Farm, Kinver, near Stourbridge, says he entered into a 10-year HLS agreement jointly with his landlord, the National Trust. Starting in 2007, the agreement was to restore and enhance the trust's land at nearby Kinver Edge.

The HLS agreement followed the conclusion of an earlier five-year Countryside Stewardship scheme which had successfully controlled ragwort, rabbits and moles on the same land. The CSS agreement included five years of Defra trials to enhance light, sandy heathland.

See also: Extra month for Countryside Stewardship payment applications

"The Countryside Stewardship Scheme ticked every box under the sun," said Mr Sadler. It was so successful that he established his own small herd of pedigree beef shorthorns to graze the land – accompanied with a farm shop selling rare-breed beef and lamb.

"We cleaned the ground up, got rid of the ragwort and knitted a sward. The fescues came and the wildflowers and we got some fertility back in the soil, building up the structure. It was all working well. We developed our business around stewardship."

After the former Countryside Stewardship Scheme came to a close in 2007, Mr Sadler says he as tenant and the trust as landlord agreed a joint 10-year HLS programme – with his own name jointly on the agreement. Everything went well, he says, until 2012 when he and the trust fell out.

Parliamentary ombudsman

After initially undertaking stewardship on the land in return for £1,640 year, Mr Sadler claims locks were put on gates preventing him from accessing 20ha. He also claims his name was taken off the HLS agreement and no further stewardship was carried out.

Mr Sadler said he took his case to the parliamentary ombudsman after trying but failing to get his name reinstated on the agreement. Natural England should have ensured that the original joint agreement was honoured, he added.

The National Trust said the stewardship agreement was with Natural England – and it was flourishing.

It said Mr Sadler had not been a party to the agreement at any point, but had worked in close partnership with the trust to manage some of the land and had a farm business tenancy. The trust said: "Regrettably, our working

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relationship with Mr Sadler broke down after we raised concerns that he was not managing the land in line with our conservation aims. We met Mr Sadler many times to informally discuss the situation but we were unable to reach agreement.

“Eventually, as a last resort, we took legal action to end his occupation of the land covered by his tenancy. We’ve been speaking to Mr Sadler throughout and are happy to attend any meetings arranged with Natural England to discuss this matter further.”

A Defra spokesperson for Natural England said: “This case is currently being reviewed by the parliamentary ombudsman. We don’t comment on ongoing cases.”

The parliamentary ombudsman is expected to reach a decision in due course.

JOURNAL : Farmers Weekly

A South West egg producer is facing jail after admitting conning his customers into buying eggs incorrectly classified as free range.

James Gigg, from Yetminster, Dorset, admitted to a fraud originally estimated at about £230,000.

But on Monday (18 June) Taunton Crown Court was told the fraud's final value had to be determined before the 41-year old could be sentenced.

See also: A guide to good egg marketing

Mr Gigg previously admitted three offences, which can carry a three-year jail term.

One was that between November 2015 and January 2017 he made a false representation, selling eggs to the Traditional Free Range Egg Company which were incorrectly classed as free range.

He also admitted furnishing false information in relation to egg production records and sales, which did not reflect the actual figures achieved.

And he pleaded guilty to marketing eggs as “class A free range” from 5,500 hens in house one and 8,500 hens in house two, when the maximum permitted number of hens in each house was 4,000 and 6,500 respectively.

Financial gains

At Taunton Crown Court, judge David Evans was told the £230,000 figure was based on the premise all these eggs were effectively sold illegally.

But Mr Grigg’s lawyers said the farmer strenuously disputes the financial gains he has made, pointing out £230,000 was the gross turnover of his farm, not the profit from the eggs.

His defence team argued the value of the fraud was £86,700.

Judge Evans told Mr Gigg he could not sentence him on “a mistaken basis” and the “value of the fraud has to be decided” before sentencing next month.

JOURNAL : Farmers Weekly

Both calving and lambing are going well, helped in no small part by the sun coming out and the end of the ceaseless rain falling from the sky.

Despite the sun shining, the temperatures are nothing special and gloves and hats are still part of the daily wardrobe.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Today has been a big day on the calving front, with eight calved already as I write this (1 May).

All the improved ground and reseeds have good covers of more than 1,500 kg/ha DM, but the old rigg and furrow pastures have only 1,100 kg/ha DM. This is just about OK for the singles to lamb down on to.

See also: Cold, wet spring conspires against farmers

We are doing some work with our vets and the vets at the University of Edinburgh blood-testing cows and calves, looking at the transfer of passive immunity from cow to calf through maternal colostrum.

Blood samples were taken pre-calving from the cows and energy balance, body condition, protein status and mineral status were investigated.

All levels were good except for protein, so we added 1kg of a 28% protein pellet to the ration pre-calving which has corrected any protein deficit.

Cows are calving well. We are on target for 65% calving in 21 days, with no retained cleansings. Colostrum/milk production is good and calves have plenty of get up and go.

In terms of a British agriculture policy post-Brexit, there are many instances of public money for public goods in the uplands: water, wildlife, biodiversity, carbon capture and tourism to name but a few. For years farmers have been delivering public goods without it always being recognised.

How do you put a value on the benefits we deliver when previously they have been taken for granted?

The challenge is getting from where we are now to the future environmental schemes without massive holes in farm cashflows.

I think Gove et al may have to frontload the new scheme in the early years as the BPS reduces and we adjust to the new structure, or there could be a significant number of casualties.

Simon Bainbridge farms a 650ha upland organic farm with 160 suckler cows, 1,500 breeding ewes and 12,000 organic laying hens with his wife, Claire, and his parents. Healthy, maternal livestock and quality feed is a priority.

JOURNAL : Farmers Weekly

In May, I did an interview with BBC Radio Gloucestershire about the feral boar population in the Forest of Dean and what it means in terms of the threat African swine fever (ASF) poses to the UK.

ASF hasn't been seen in the UK before, but it is a notifiable disease that often causes 100% fatality.

Recently it has spread west from Russia and Georgia at an alarming rate as far as Poland, the Czech Republic and Hungary.

Wild boar and possibly the illegal movement of infected pigs or feeding of infected pork/pork products have been spreading it.

As an island we are protected somewhat, but the disease can be transmitted easily in pork products and on vehicle wheels or clothes.

See also: Guide to biosecurity measures to keep pigs disease-free

The population of "wild" boar in the Forest of Dean is thought to be well in excess of 1,000 and is principally a cross-breed of a more commercial pig and wild boar.

Feral boar having access to BBQ meat and leftover picnics is a major concern in tourist areas.

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An outbreak of ASF in the UK would be devastating – not only for the farms affected, but to the UK pig industry as a whole.

The UK pork export market, which is worth £345m, would be shut down immediately. Last time we had a classical swine fever outbreak it took 10 years for China - our second-largest export market - to let us back in.

It would probably be easier to get back into the EU, but after Brexit, who knows? Also, to get back into these export markets we have to be able to prove we are free from ASF. If ASF is circulating in feral wild boar, this could be impossible.

The NPA has been collaborating with Mark Harper MP (Forest of Dean) and the Deer Initiative to present a case to the AHDB for co-funding for a dedicated resource; possibly in conjunction with the Forestry Commission, to provide a co-ordinated effort to reduce the feral boar population to more manageable levels that do not facilitate the easy harbourage of disease.

Being less than 20 miles from the Forest of Dean, this is a real concern for us and other pig farmers in the area.

JOURNAL : Farmers Weekly

Shortly after I wrote my last column we set a new farm record for numbers born alive. The JSR 400 terminal sire averaged 15.43 across 88 sows.

Since our first farrowing on the batch system in January 2017, we have averaged 14.41 born alive on the Hermitage Maxgrow and the JSR 400 terminal sires.

This is up 1.2 piglets a litter on the weekly system in 2016 across the PIC 337, Maxgrow and the JSR 400. Genetic improvement must play a part, but it was such a step-change after switching to batching that we feel the good results must be down to the focus of labour on one task at a time.

It prompted me to look back a decade to 2008 - our average born alive for was 11.97.

See also: Deadline nears for recording antibiotics use on eMB-Pigs

Although these high numbers are fantastic, they have also caused a few headaches. We have had to sell 150 piglets at weaning and it is likely we will have to send a significant number as pork and cutter-weight pigs, as we don't have the finishing space to take them through to bacon weight, particularly through the summer months, when we like to stock a little lighter.

As these higher numbers look set to stay, we have been forced to think about what we do to manage this. It looks as though, in the short term, our only option is to farrow fewer sows per batch, but this pains me.

Where to invest

We have been talking about investment on the pig farm for some time now, and it's come to crunch. However, it's just a case of deciding where to start. Our dry sow housing and feeding system is antiquated.

Our farrowing house is labour intensive and hours could be saved here with upgrades to the flooring. And our finishing accommodation is perfectly adequate, but we just don't have enough space anymore.

Investing in more finishing space would bring the fastest return on investment, but if our current dry sow housing doesn't perform, it's not much use if we don't have the pigs to fill it.

The Pig and Poultry Fair couldn't come at a better time and I'm hoping to come away with some firm decisions on how to proceed.

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Sophie Hope, Cheltenham, farms 380 sows indoors from farrow to finish, producing 10,000 pigs a year direct to Tesco, as well as 81,000 broiler-breeders. A straw-based system is currently in place with boars from composite commercial lines and some Hampshire used for hardiness.

JOURNAL : Farmers Weekly

I wonder if blackgrass should become a swear word, certainly I often precede it with one. As usual, just as I am preparing to head off to the Cereals event thinking I've dealt with it, some more late comers appear.

I go for the research and "enjoyed" hearing from Rothamsted about how mixing active ingredients does not help if the blackguard has metabolic resistance to herbicides.

Of more hope were the various ideas they were investigating to control it, such as genetic techniques, germination stimulants, biological control, UV and heat.

See also: How to use integrated methods to control blackgrass

The new long-term experiment they have set up looking at different cultivations, rotations and fertiliser sources could be very useful.

Crop ancestry

At the Assist stand I saw a programme that models changes in such things as soil carbon, pollinator richness and calories produced for changes in cropping intensity.

At a brief glance, upping cropped area seems to show the familiar idea of increasing calories but decreasing pollinator richness, for instance. But other research I found there suggests that we can have wildlife-friendly farming and increase crop output.

Work being done at NIAB on improving nitrogen use efficiency and the root architecture of wheat, and at the University of Essex on increasing the efficiency of photosynthesis and water use, would compliment this.

At the JHI stand they described their attempts to build the malting characteristics of spring barley into winter varieties and showed me a fascinating crop ancestry tool that depicts the family tree of current varieties.

I will have a look at this to see if I can find Napier or Istabraq in any parentage, because these have anecdotally been good in no-till situations – perhaps they could feature it in AHDB Recommended Lists?

What really frustrates me is that much of this work relies on BBSRC funding, who, in turn, rely on scientific papers published as a measure of success.

In fact, knowledge transfer to farmers is often held up as papers wait to be accepted! What on earth is the point if research never makes it to the field?

JOURNAL : Farmers Weekly

The calving period has nearly finished. As I write this (23 May), we have two heifers and a cow left to calve.

I was a bit wary this year, as in the past I used semen that was selected for calving ease. This year we purchased a Welsh Black bull to run with the herd.

He did an excellent job. All cows are in calf and all within six weeks. We haven't had any major issues; one assisted, one set of twins and one poorly cow.

All are out grazing now and making the most of the sunshine. The only negative is the high number of bull calves, which won't help me increase herd numbers.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

See also: How to set up rotational grazing on your beef farm

It's also time for eight-week weights to be taken on the nucleus lambs. We did this on the weekend and it was pleasing to see.

Iwan has done tremendously and all the lambs were looking sharp and healthy. The single average weight was 24.5kg and the twins averaged 21.3kg.

These figures are slightly up on last year, but I won't tell Iwan that, as we are both rather competitive.

This small difference in lamb weights reinforces the importance of increasing prolificacy within the flock and weaning a high percentage.

Due to the decrease in numbers, the singles aren't following the twins, but rather grazing their own block, with cattle floating between both mobs to help control pastures. Additional silage will also be cut this year to help manage the decrease in numbers.

It is great to share photos and videos with our customers in the shop and via social media. At this time of year we are selling new-season lamb, hogget and mutton. This has people intrigued and they are eager to sample all to compare taste and texture.

The one restricting factor in the butchery industry is staff. This is most definitely having an effect on our business at the moment.

We are looking for enthusiastic, hard-working and experienced butchers and an apprentice. If anyone reading this is looking for a new challenge, please get in touch. @ShaunHallJones

Shaun Hall Jones and his father Barrie farm 1,000 ewes, including an Abermax nucleus flock, and 40 Welsh Black cattle across 364ha near Llanybydder, Carmarthenshire. New projects include a farm butchery business and a shop in Cardiff.

JOURNAL : Farmers Weekly

We completed our spring barley drilling on 8 May and the development of all crops since then has been extremely rapid, with a late season now back to normal timings.

A May drought seems to be a feature of our weather in recent years and while this has been great for getting up to date with fertiliser and spray applications, after three weeks with no rain, crops are suffering.

Now that we are caught up with spraying spring barley, I am applying the flag leaf spray to wheat. With the dry weather set to continue, I am taking the opportunity to keep fungicide and growth regulator rates at the lower end of the scale, making some savings from the dry weather.

I am sure oilseed rape flowering will finish quite quickly, so a second flowering spray is not going to be required.

See also: T3 spray tips for battling ear blight in wheat

Government proposals on organic manure storage and application in the future are a concern. While injecting slurry makes a lot of sense, the proposals for solid manure seem less well thought out.

Storing it undercover in sheds is not realistic on a large scale with spread-out fields and I don't relish trying to cover field heaps in plastic, which will inevitably start to get blown around the countryside.

Muckspreading and ploughing

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Depending on the definition of bare land, incorporation within 12 hours of application is a potential issue where we are applying to stubble ahead of ploughing. The difference in output between muckspreading and ploughing could cause some headaches, with spreading contractors in demand only for the first three hours each morning.

I think there will be much discussion to come on this and hopefully some common sense applied to avoid unintended consequences that outweigh any potential benefits.

If the past few years are a guide, the fact that we are getting ready for silage-making is sure to bring a change in the weather. I hope we get just the right amount of rain to keep the crops going, but not a return to a bit of rain every day like we had earlier in the year.

JOURNAL : Farmers Weekly

Another bank holiday wash-out brought some fantastic rain. Now we're basking in 20C sun again and grass growth on the platform will be out of control.

It's a reminder that in the UK and Ireland we have a huge comparative advantage over most of the world. Our ability to grow and use the cheapest form of feed available to us (grass) allows us to develop sustainable business models capable of surviving price volatility and political changes.

Furthermore, in its simplest form, using grazed grass can be achieved with the smallest amount of capital outlay, providing the foundation for young farmers and new entrants to establish their businesses and grow their equity in stock.

See also: How to set up rotational grazing on your beef farm

Why make it complex?

"Life is really simple, but we insist on making it complicated" rings too true in so many circumstances. Expensive machinery, sheds and show-winning cattle create an expensive smoke screen to mask what is growing - or not growing - in the grazing and silage fields surrounding us.

Even at fantastic events such as Welsh Grassland, how many potential young farmers gawked at £100,000-plus set-ups going up and down the field, yet walked right past the grass-breeding stands and trial plots?

I was guilty of all of the above before changing my approach to grass management. My point is that if all you see to starting up with your own stock ownership is barriers, or if Brexit, subsidies or potential cheap imports keep you awake at night, ask yourself if you are maximising the comparative advantage handed to us.

Pleased with submission rates

On the farm we are four weeks into AI, with about a week to go. We had a pleasing submission rate of 90% in the first three weeks and things have really quietened down now, which is promising.

Grass growth is good, with some surplus taken off the platform and first-cut silage finished on the support ground.

This month we say goodbye to Pete, who is returning to Ireland to take on the management of a 240-cow herd. I am very grateful for the hard work he has put into the farm for the last two seasons and wish him all the very best for the future.

JOURNAL : Farmers Weekly

Is any crop better than no crop? Given the late spring and the exceptionally wet and windy conditions, there's been a lot of head scratching in these parts.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

How late is too late to drill? Do we just drill 'water pumps'? Given the price of barley grain and straw, the usual logic maybe better parked for this season.

Fortunately our beans were drilled into ideal conditions just eight days later than last year.

See also: Defra's policy consultation: Key points and how to respond

They may well be harvested in October or November, but who knows what weather we'll get between now and then?

Good yields are still possible: we just need sunlight. As for the winter cereal crops, we have abandoned plans for T0 and T1 fungicide spray programmes and we will just have to make it up as we go along.

Baffling politics

I don't know about you, but I really struggle with the language of politics! Take Defra's 'Health and Harmony' consultation.

I'm not suggesting that all men of the soil are simple - we're not but can't we just have easily digestible facts in bullets points, so we can digest it quickly while we're doing a myriad of other jobs.

Let's hope Michael Gove's advisers give him a balanced view and don't just listen to the pressure groups who mobilise their followers to write in!

It's the same with every document from DEFRA: we're left to cut through the verbiage and grope for the real meaning.

Having had several attempts at digesting this particular consultation, I just feel I'm being dragged into a downward spiral of apathy.

Following my previous comments about poachers, our North Yorkshire rural crime task force is setting up a Ryedale 'rural watch' team.

But like other vital services, it's the sort of scheme that should be paid for by the taxpayer, not somehow asked to fund itself.

Our government insists on maintaining its overseas aid budget, but it should really sort out more problems at home first.

Richard Wainwright farms 510ha in Ryedale, on the southern edge of the North York Moors. With soil types ranging from heavy clay loam to limestone brash, the family partnership grows winter wheat, winter barley, oilseed rape, spring beans and rotational grass leys. The farm also runs a large beef fattening unit.

JOURNAL : Farmers Weekly

We have had a cool, wet autumn where I farm in South Africa. The wet weather has made harvesting soya beans a challenge but it is good for my cover crops.

I recently finished my soya so now I can turn my attention to dry beans (pinto beans). Harvesting dry beans can be a challenge, but if done correctly it can be very lucrative.

See also: Spring beans outperform oilseed rape on heavy Essex land

You get many varieties of beans. The older types don't stand very well, with a high percentage of their pods on the ground, which is disastrous if you get late rain.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Many pods will rot and many of the individual beans will discolour from water stain. Fortunately, I grow a variety that stands, although that is a bit of a misnomer as many of the pods still touch the ground.

Harvesting by hand

Planting was about two weeks later than I would have liked, but this has turned out to be a good thing as the beans were still green when conditions were very wet.

Now that the weather has dried off, my beans are ready to **harvest**, which is an interesting exercise. I don't grow enough to warrant a windrowing machine, so I windrow them by **hand**.

Unemployment is very high in South Africa so it is possible to get a team of about 80 people to pull the beans.

The plants have a very weak root system and are pulled out of the ground and placed in a windrow. A combine then picks up the rows to thresh the beans.

As the beans are very susceptible to splitting, it is better to avoid augers and if one must use an auger, then run it slowly.

The beans are sieved and sorted, then packed into 4kg bags for retail. Large portions of these bags are transparent, making every blemish noticeable, so it is imperative to have a high quality product.

Bruce Shepherd farms in KwaZulu-Natal, South Africa. He plants 500ha of rain-fed summer crops across 3,000ha. He also runs 2,600 weaner oxen on pastures, finishing them in a feedlot with maize grown on the farm.

JOURNAL : Farmers Weekly

Grass growth is now peaking and cattle and lambs are really thriving. The countryside and nature is at its most beautiful and many days are spent in awe of the wonderful wee world we live in – life is good.

The rotations have been shortened to try and maintain grass quality. Swedes and fodder beet have been sown. Kale and swift will be sown and bales will be placed in the winter fields in the next week.

I had two very enjoyable and inspirational days away this month. The first was a day with our Quality Meat Scotland (QMS) grazing group.

See also: How to set up rotational grazing on your beef farm

We visited one of the organic farms within the group and, as always, the discussions left my head spinning with an information overload.

The second day was a sheep meeting on a friend's farm. I love going to there because, being the outstanding young farmer my friend is, you always leave inspired.

The attention to detail he and his stockman have is incredible and he makes all his decisions based on information that he collects and records continuously.

I keep the annual QMS benchmarking book on my desk and regularly use it to compare my sheep figures and mostly I **end** up with a feeling of despair. But at least it gives me a target.

When I started paddock grazing my fattening cattle the locals all thought I was mad. When I told them (and lots of "experts") about seeing cattle in New Zealand doing 2-3kg daily liveweight gain (DLWG) in this system the reply was always: "Ah but that's New Zealand." And that was even from the "experts".

Interestingly, there are lots of people paddock grazing now – even the "experts" think it's a great idea.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It's still surprising how few people monitor DLWG's – it comes back to the old adage “you can't manage what you don't measure”.

In the Damn Delicious shop Michelle has introduced fresh hot pies and sandwiches and they are proving very popular.

She has also introduced lots of new heavily discounted packs which everyone seems to love. I'm not so keen – the issue is the “discounted” part.

JOURNAL : Farmers Weekly

Our maize has been planted at least 10 days later than usual. We have also direct-drilled some grass seeds into swards sprayed with glyphosate.

The contractors are under pressure, with three months' work to do in a month, as muckspreading, maize planting and first-cut silage are all overlapping this year.

At short notice we had a Glastir agri-environment scheme capital works inspection, which prompted some panic and a couple of hastily finished fencing jobs. Thankfully we passed with no penalties.

I spent a day helping with the “Cows on tour” at Marshfield Primary School just outside Cardiff. Abi Reader started this initiative a few years ago to try to educate school children about where their food comes from.

See also: How to feed dry cows to prevent negative protein balance

It involves taking the farm to the school, with sheep, chickens, a cow and a tractor. I ended up taking a chicken and some chicks around the classrooms, explaining about egg and chicken farming, with my vast knowledge of poultry!

It was hard work, but very rewarding, and it is something we need to replicate across the country to bridge the divide between agriculture and the public.

We hosted a couple of separate customer visits for the Abergavenny Creamery. They arrived just in time to see the last part of morning milking.

One visit included a lady from the US, who had just placed a significant order of goat's cheese. Hopefully we can be one of the few sectors of British agriculture to benefit from Brexit, as most of the new markets for goat's cheese are outside the EU.

The Boer-cross kids are just starting to be born and are noticeably meatier than the dairy kids.

A local goatmeat farmer was featured on a BBC TV show recently and following the programme, their website was inundated with orders for goat meat. Hopefully this trend will continue and provide us with a new income stream in the future.

Gary and Jess Yeomans run a herd of 700 milking goats across 100ha, which supplies a local cheese factory. They also own a small pedigree Welsh Black suckler herd to graze permanent pasture.

JOURNAL : Farmers Weekly

Shearing season has been pretty easy to manage so far, as the weather has been on our side and not held us up too much, which is good.

However, jobs out and about on the farm are starting to stack up. One of the jobs I'm relieved I didn't have the time to race into was subsoiling.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Some of the jobs done early seem to be drying out with all this hot weather so we are aiming to get stuck into that sometime in August. Let's hope winter doesn't start in August again like last year.

Ewes and lambs are looking well and, with the lamb price being a bit better, hopefully things will even out a bit on the books.

See also: How late lambing system helps farmer supply **Co-op** contract

The hinds have been flat out calving for a few weeks now and seem to be getting on with it very well. Most of the older groups have all but done and the first time calvers are a bit later.

On the whole, the hinds have come through the past 12 months very well with maybe the exception of a handful of first-time calvers.

I must admit these deer seem to do things at the right time of year, like calving, through all this good weather makes a lot more sense than trying to compete with Mother Nature.

All the stags are looking great in all their glory, with the older stags nearly finished growing out their velvet.

Every now and again when I'm at home and Pip has holidaymakers I try and take them around the farm. I use it to educate them a little and they all seem to love coming around the deer and seeing the new arrivals and can't quite believe the stags grow massive antlers every year.

I'm also really pleased with how well this year's yearlings are going as we have nearly reached weights we were hoping to get to by October, so slowly things are getting better but there's still a lot to learn.

JOURNAL : Farmers Weekly

This is my final Farmer Focus article. In the two-and-a-half years I have been writing a lot has changed on all fronts.

The biggest issues for British farmers in that time have been the uncertainty of Brexit and the resulting repatriation of agricultural policy.

When I started this column, the biggest issues in the goat milk sector were undersupply and recruitment of new suppliers.

See also: 6 top tips for getting into milking goats

Back then I warned it was a niche market. Now we have quotas, price cuts and new producers losing their milk contracts. The milk price cut is now starting to bite reducing our income significantly.

I have also become more involved with NFU Cymru and done some media work to help get the farming message across. I have seen the huge amount of work done for the members by the staff and office holders in the NFU.

On the farm we have taken on some more land on a short-term farm business tenancy, but haven't significantly increased goat numbers.

We have, after a long, drawn-out process, obtained planning permission for a new dwelling with an agricultural tie.

In the future, we are looking at a new enterprise to spread the risk, although milking is so relentless we have discounted taking on any new species of animal.

There may be some opportunities for some share farming or contract farming in the locality, as landowners look to protect themselves from potential inheritance tax changes.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The children are growing up fast, with Tommy playing cricket for school, club and county and Megan busy with her pony.

It is often hard to find the time to watch them. There will always be farming jobs that need doing, but the children will soon be grown up and gone so we need to find the time.

Over all, I have enjoyed writing the column and thank Jess for doing the proof reading. It is surprising who reads Farmers Weekly, accountants, bank managers, farmers in France and lots of others that you wouldn't expect to.

JOURNAL : Farmers Weekly

At last, in the second week of May, spring has finally sprung in Lanarkshire.

Swallows have returned, grass is virtually jumping out of the ground, lambs are skipping, the cattle are into their rotation and I finished rolling the undersown arable silage today.

All is well with the world and the farmer is a lot happier.

Five ewes are left to lamb, but on the whole I would say it hasn't been too bad. However, I won't really know before I do a proper first count.

After the winter, it is time - while things are still fresh in the mind - to look back and try to get a grasp on where I could improve things.

The saying: "Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference" comes to mind.

See also: 9 steps to getting a spring reseed right

I was very disappointed in my cattle performance during the winter. The weight gain of outside groups was static at best and this was mainly down to a lack of feed.

We had a very prolonged period of hard frost midwinter that hammered all my fodder crops. This is the second time this has happened to me, so this year, in addition to my swift, kale and fodder beet, I am sowing some swedes as an insurance policy.

I also feel the animals would benefit from more protein in the diet, so I have gone back to an arable silage mix that includes peas rather than a pure stand of barley for my wholecrop.

I have added red clover to my undersown grass seed, in hope of two outcomes: more protein in my silage and aftermaths to provide me with a crop of "rocket fuel" for finishing lambs.

I have also set myself the target of having all lambs off the farm by 1 November - hopefully all the new Suffolk and Hampshire Down lambs will help.

The shop is going through a major transition, with my wife, Michelle, planning and developing lots of new products. From the **end** of May we will be offering a take-away service of our own hot pies and rolls, made with our home-cooked meats.

Michael Shannon finishes 150 head of mostly Angus beef stores each year and runs 280 Scotch Mules on a 100ha forage-only enterprise, as well as free-range turkeys for Christmas, near Biggar, Lanarkshire. Meat is sold through his online business and farm shop Damn Delicious, with surpluses sold deadweight.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Following recent rainfall our crops have all switched to “fast forward” and, helped by the warm temperatures, have raced through growth stages. We are now back on track for a respectable **harvest**.

Currently my favourite wheat crops are the variety Graham, although the Montana also looks promising.

I recently organised a farming study tour to Kent, the Garden of England.

This county has so much to offer and we saw unfamiliar crops such as hops, asparagus and lavender being grown successfully, and met farmers thinking “outside the box” to stay one step ahead.

See also: Gove’s new farm pollution controls: The details and reaction

Everyone returned home with fresh ideas. Study tours are a great way to enjoy a short break with the added benefit of being a legitimate tax-allowable expense! In these times of impending change there is a great deal to learn from each other.

Encouraging wildlife

My personal highlight of the trip was a visit to the Elmley National Nature Reserve on the Isle of Sheppey.

This family-run farm thinks of wildlife as being their “crop”. Using a combination of advanced habitat enhancement, robust predator control and balanced livestock grazing they have created a stunning environmental landscape.

The reserve was teeming with lapwing and redshank fledglings, among other rare species. Elmley told a really inspirational story and the inference was obvious: if you want a conservation project run properly, ask a farmer to do it!

Soft targets

The Defra Clean Air strategy 2018 is yet another consultation clearly picking on agriculture as a soft target.

Despite ammonia emissions having fallen 13% between 1980 and 2015, farming is faced with draconian proposals such as manure covers and decreased fertiliser limits, with special measures inflicted on dairy herds of more than 150 cows.

Other industry and transport sectors are largely overlooked or given much longer timescales to work with. Farming bodies need to come together in unity to challenge these unreasonable ideas.

JOURNAL : Farmers Weekly

As a pro-Brexiteer, I must say I am becoming disillusioned and pretty disgusted at the direction (if any) we are headed.

The first thing we need is no MP holidays this summer and no parliamentary recess, as there are far too many issues that need addressing before March 2019.

Over-regulation was the number one reason for me wanting to leave the EU and Michael Gove said once we left, the amount of rules and regulations would fall. However, it’s now looking like there will be more red tape in every sector.

It’s pretty clear our food standards must remain similar to the EU to continue trade.

See also: Analysis: Hard Brexit best for UK milk prices

I would have been a supporter for a “hard” Brexit and being free from the customs union, but I don’t trust trade minister Liam Fox at all – he would give away anything just to grab a deal.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I have very little faith in the two big Scottish players (Gove and Fox). The Scottish National Party walking out of parliament the way they did is not the way to gain support south of the border.

Swedish farmers have some of the highest welfare standards in the world, which their consumers seemingly demanded. Sweden became 90% self-sufficient in food.

They were told if they joined the EU, demand for their produce would increase. However, in stark contrast, their own consumers began to enjoy cheaper imported food from other EU countries and now Sweden's self-sufficiency has dropped to 50%, while no other EU consumers are willing to pay extra.

My fear is, if we open our gates to the rest of the world with zero protection, our self-sufficiency could easily drop from 62% to maybe 40%, which would be a disaster.

Mr Gove – who we met again at this year's Royal Highland Show – is quoted as saying “over my dead body” when questioned about the threat of low-quality imports – tell me, what's the average lifespan of a controversial MP?

It's clear we need clarity now to plan our future. Too many farms are either cutting back or in maintenance mode where investment needs to happen as soon as possible.

JOURNAL : Farmers Weekly

This must be déjà vu – 35 days later and I am writing about silaging again.

Admittedly, we are looking to push the multicut system, but none of us envisaged literally waiting for the nitrogen levels to drop.

On the whole, the crops have been ready to go since the beginning of the week. The month of May has been madness, with the farm growing at an extraordinary pace - nettles and all.

Ground conditions meant getting the maize in needed to be a very patient affair. The stubble ploughed over very wet, and it even meant I spent a weekend bouncing around on the sumo.

See also: 6-step guide to successful maize establishment

All things considered, 18.2ha went in before the second bank holiday weekend, into a cobbler-than-hoped-for seed-bed. Since then the weather has been perfect, with warmth, rain and sun in equal measures.

Despite my concerns, given the lateness and initial conditions, the crop is up and growing nicely. Long may it continue.

This month has also seen 95 low-yielders go out to graze. Given the spring, it was definitely the right call to delay turnout until after first cut.

Although they are eating grass well, with limited buffer fed they have been a little restless and the milk has taken a tumble. This will be something we have to review in the next few weeks.

We have also taken Muller up on the option to fix up to 50% of our milk at 28p/litre through the deal they signed with Lidl. We gave it a lot of thought and consideration and in the end signed the three-year option.

We think it is a sensible move given the previous four years, and should help to put some stability into our cashflow and forecasting. However, there is always that what if.

With it being based on last year's lowest month and our expansion it only equates to 35% of our milk in real terms today, but a positive nonetheless.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

My fiancé has left for Dublin on her hen do this morning. Not sure whether my stag will be starting with eggs Benedict and a glass of fizz.

JOURNAL : Farmers Weekly

What a difference a prolonged spell of dry weather makes to the farm and, indeed, my mood.

I don't think I have ever known crops to go through their growth stages so quickly, so we have been very busy trying to keep up.

However, we made it and crops are looking reasonably well - apart from my oilseed rape, which is thin and patchy, mainly due to excessive wet weather since drilling.

See also: Read more from our arable Farmer Focus writers

Spring crops went in much later than I would have liked, but they seem to have hit the ground running and I am now feeling more positive about their prospects.

All this emphasises just how dependent our industry is on settled weather - I wonder if we can build that into our new agriculture policy?

On the lookout

I am writing this just before departing for Cereals 2018. It will be interesting to see how the event will have changed or improved under new management.

It will also be interesting to hear others' views on how they think our industry will change after Brexit and how they will meet those challenges and opportunities.

I plan to use the show to learn, and hopefully discover new ideas and management approaches to make my business more competitive.

However, I am also aware that it is a huge shop window for machinery. This leaves me in a bit of a quandary as right now I am in the - maybe - enviable position that I own outright every piece of kit on the farm.

The problem is that, like me, it is all getting old and somewhat worn, it won't last forever and will need replacing at some stage.

Do I want to spend hard-earned money on some shiny new machine while entering somewhat uncertain times?

On the other hand, new machines can sometimes make a business more competitive, so that is the dilemma we all have to face and the solution will often be different according to each individual business.

Maybe I'll take the credit card anyway - but leave it in the car.

JOURNAL : Farmers Weekly

I'm back from two days at the British Pig & Poultry Fair in Stoneleigh. This biennial event is well attended by producers.

There was a really positive feeling from everyone I spoke to. Sure, feed prices are rising, bedding is expensive and there are health challenges out there, but trade stands seemed busy.

Many of us were maybe window shopping, as it costs a lot of money to replace old, worn-out buildings and equipment.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The first day I spent catching up with old mates, often over a few beers, which those kind people in the allied trades kept thrusting into our **hands**.

See also: Guide to biosecurity measures to keep pigs disease-free

In the evening, my daughter Katy and I had a few more beers with a couple of Scottish poultry men, who I seem to remember were equally positive about the poultry sector, though things were getting a bit hazy by this time.

AHDB Pork strategy director Mick Sloyan was equally positive about the British pig industry.

He patted us pig producers on the back for reducing antibiotics use by 28% in just one year. I was also surprised to learn from his forum talk that in 2017 the value of British pork exported to China was double the value of Scotch whisky exported there.

The second day there seemed significantly fewer people in the pig hall, but the poultry hall seemed equally as busy as the first day.

Next month is the 134th Lincolnshire Show (20-21 June). The piggery's longest-serving employee will be receiving his 40-year medal at the show's awards.

I usually take the lads from the piggery for a jolly to Market Rasen races in the summer, but I think we should have it at the show this year to mark our colleague's award.

I added up the total years the six of us have put in at the piggery - it comes to 144. Divided by six that equals 24 years each.

I know it is a struggle for some farmers to retain staff. Perhaps someone at AHDB should be looking into staff retention?

Keeping antibiotics use to a minimum is a key aim for David Owers on the 700-sow indoor closed unit he manages in Lincolnshire. He sells half of the progeny as 8kg weaned pigs and rears the rest to bacon weight (105kg). The farm includes horses, cattle, 1,620ha of arable land and an AD unit.

JOURNAL : Farmers Weekly

Lambing is largely finished. The ewes were remarkable, especially one group of 100-odd ewes that became stranded on an island for almost two weeks when the water level rose and washed away my sheep bridge.

The weather broke and we got a reprieve – for a few days we even managed to drive across fields. In the latter half of the month the weather closed back in just as the ewe lambs started lambing.

As part of the AHDB's "challenge sheep" programme we are recording parentage of just under 400 ewe lambs and will be tracking them and their offspring for the next seven years – I am confident we have the foundation of a tremendous flock.

The unseasonable spring has also meant Jo and I have experimented with role reversals (it's not as exciting as it sounds).

For a few days I had to switch to arable as the contractor's big Fendt and 8m cultivation gear became bogged – our little Massey could reach places others couldn't.

See also: High lambing losses likely to support fat price for longer

Big thanks go to Dan Livings for stopping his drilling and running across with a Cat Challenger to rescue the contractor. Also, thanks to Trevor and Ralph, who donated/sold me various bits of small lightweight cultivation gear.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Over three days we managed to get about 25ha of barley in the ground as well as 10ha of grass seed – although with our drill having no tramline system or markers, it won't be the prettiest job.

Highlights for me are the knowledge that the local Indian takeaway will deliver to a field gate at 9.30pm (free fork) and that trying to ratchet-strap a bailer to the front loader to help the front tyres grip does not work.

Our drilling window has probably shut, with about 100-120 acres of peas still sat in bags. Cheap forage mixes for the lambs could make use of these fields and, with a bit of luck, we can salvage the situation by finishing lambs earlier than normal.

Rob and Jo Hodgkins run 1,500 ewes across 485ha of grass and have 566ha of arable in Hertfordshire, producing lambs for Tesco and breeding sheep through Kaiapoi Romneys. Subsidy-free farming means sheep must be functional, lamb outdoors and produce lambs on forage alone.

JOURNAL : Farmers Weekly

It feels as if summer finally decided to show up. It's been a mad rush around since it started to dry up.

We have been trying to get everything back on level, growing grass and overseeding all the paddocks that we wintered the deer in.

All the deer are starting to look well now, as the grass is starting to keep up with them. It is great to see them losing their winter coats.

We are due to start calving any day now. It looks as if most have managed to hold on to their calves despite all what nature has thrown at them.

Lamb numbers are back on where we would like them to be, but in fairness, all the ewes that didn't get hit with campylobacter (abortion) have done really well and most of the lambs look well.

See also: Advice on silage aftercut nutrition in a late spring

We hosted an open day for the British Deer Farms and Parks Association and there was a reasonable turnout, with the weather making it an enjoyable day.

Hopefully we put a few ideas out there for anyone thinking of getting into deer farming.

I bravely decided to show how I muster the deer using my Huntaway. When no one is watching, this goes really well, but I was a bit nervous about all the things that could go wrong.

The dog hadn't been worked much for weeks and was wound up like a coiled spring, but it actually came off alright.

My younger brother Rowly flew over from New Zealand for six days. We ran three competition courses for both the British wool board and Heiniger. We travelled to Wiltshire, north Wales and Northern Ireland.

We were asked to put on these courses as it is a big year for anyone chasing the circuit to compete at France in the world championships next July.

It was good to be able to put something back into the industry, as we both really appreciated the support with both our world record achievements. It was also great to spend time with Rowly.

Matt and Pip Smith run 500 Red/Romanian deer and 800 breeding Romneys across 121ha in Cornwall. Matt is also a shearing contractor and trains sheepdogs.

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E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

What weather we are having. The sun shines for days, only to be interrupted by the odd downpour and thunderstorm.

Paddocks have gotten ahead of us and we now need to reassess and begin closing acreage off to be cut and baled.

This is not an issue, as we do not have any buffer forage stock in the system, and this seems to be the trend with many farmers in the local area.

Another benefit to the early summer is that the ewes are shearing well. The nucleus and indoor lambing flock are done, and the outdoor commercial flock will be done in the coming days.

Once this is complete we will begin weaning, recording weights and taking the back fat and eye muscle measurements.

See also: Guide to breeding from ewe lambs

Quality meat, not quantity

The BBQ season continues at the shop. We are seeing an increase in customers, although the trend seems to be that they buy less, but "better" meat.

Our sourcing policy of rearing our own, or sourcing from Welsh farms, appeals to the consumers who want ethically reared meat with provenance. We must continue to ensure standards are high, that we promote what we do and that we're proud of our industry.

Shop closure

A local family butchers closed its doors last week. The shop was in its third generation of ownership and highlights the evolution of the high street.

Being an independent family business is no longer enough - the consumer expects better quality, better sourcing and better service from independents.

If this isn't provided, there is nothing to keep them away from taking the convenient option of supermarket shopping. Supermarkets have parking, late opening hours and deliveries which makes them very attractive to the busy consumer.

As independents, we need to find a way to compete. The change in buying trends is evident, with supermarkets promoting British farming and promoting their collaborations with farmers.

This is fantastic for our industry and we hope that it results in fairer prices throughout the season and that we, as farmers, feel valued and not exploited.

JOURNAL : Farmers Weekly

It has been a crushing few weeks on our ranch. We lost our patriarch, my grandfather.

It means we have slipped from four generations of the family at home down to three. It may be because it is still so raw, but I think these sort of things are more difficult on a family farm.

He wasn't just a grandfather who I visited during holidays and got cards in the mail from a few times a year. He was my mentor, my boss, my business partner, my hero.

I grew up eating as many meals at his table as my own. The past few years, as he got older, I may have eaten at his house more than mine - with that time came a lot of talking, both about life and cattle.

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See also: Farmer Focus: Global disdain at some British cattle breeding

He was also the majority owner of our business. This of course adds another layer to trying to work through things.

For many reasons, it is difficult - nothing ever stops when livestock are involved. Soon after I got the news, we had to work a set of calves and with less help because Mom and Dad needed to meet with the funeral director.

Feeding cattle hasn't quit while we grieve either. This week we begin our spring AI season - we breed 700 commercial heifers this week.

Once they're done and at summer grass we will start doing the pedigree animals. It's a numbing feeling to not be able to quit, or run away, or just turn it off for a little while.

There is a saying in the American West that when someone has complete buy-in to whatever they are doing they are "riding for the brand".

I have reflected on this in the days that have passed since I marked his coffin with our cattle brand - the "quarter circle over M Bar". This marks what belongs to our ranch for "outsiders" to see, but it has a much more personal sentiment for us.

I'm sure I don't have a full appreciation of what it will mean to ride for the brand like Grandpa did, not only with our ranch life, but in a broader, human sense.

I can only try my best to continue with the legacy he instilled in us and keep pushing along.

Daniel Mushrush is a third-generation Red Angus breeder in the Flint Hills. The Mushrush family runs 800 pedigree registered Red Angus Cattle and 600 commercials across 4,856ha, selling 200 bulls a year and beef through Mushrush Family Meats.

JOURNAL : Farmers Weekly

A lot of talk in rural America has been revolving around the Farm Bill and all of the political nonsense taking place with it.

Every five years, Congress comes up with a set of laws that fund the government's agriculture programmes. However, the first thing you notice is that most of the Farm Bill has nothing to do with agriculture - 80% is taken up by the Supplementary Nutritional Assistance Programme (food stamps for the poor).

Rural people complain about this, but there is a good reason for it. We are no longer Jefferson's America and agriculture is usually ignored/underappreciated/attacked by people who don't care about it.

Savvy rural politicians have moved food stamps into the programme and kept them there, ensuring urban politicians care about the bill and have to pass it.

See also: How to 'home-test' grass to know when to cut for silage

The remaining 20% is for agriculture. About 15% goes to crop insurance and commodity programmes.

Most goes to the "big five" - corn, wheat, soya beans, cotton and rice. The cotton guys in particular have done a great job in carving out an oversized piece of the pie.

Limited payments for livestock

The last 5% goes to conservation programmes and "other." This is where livestock guys usually fit in for buffer strips near streams and redesigning water facilities, for example.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The “other” involves disaster programmes for droughts and wildfires that can completely wreck businesses and, although the smallest portion of the whole bill, is the most important and the only money livestock farms can get.

The Farm Bill is just welfare and a way for rural America and the urban poor to take a little bit of money from our rich, soft, latte-drinking suburban counterparts.

Land is the goal

I was lucky enough to have a university professor who wrote farm bills. One thing he drove into us was research showing that farmers, by nature, buy land, and farm payments were capitalised in land values.

This means the large “big five” farmers get bigger and push livestock out of the way.

The older you are, the more time you have had for the equity to accumulate. He called this “grandpa’s way of screwing his grandsons”.

But it's OK. As a young guy trying to branch out and grow with only livestock, I’m not bitter all.

JOURNAL : Farmers Weekly

Hedgerows have burst into colour, fields are green and the sun is shining. Everything is a lot more positive and it’s a lot easier to find enthusiasm to do things – even BPS applications and its associated headaches.

May is mental health awareness month, which is fairly apt for the agricultural industry after the past few months of weather woes.

As an industry where workers are often isolated and independent, it is difficult to speak up and tell someone your troubles, or that you are not coping well. But it shouldn’t be – there are a host of people you can talk too; friends or family, or farming charities.

See also: Where farmers in need can find charity help

Often a simple phone call can be a huge relief, even if it only tells you that you’re not alone in having the worries or frustrations. I’ve had many conversations this spring with friends when the weather or lack of work progress has gotten too much either for myself or them. Things always seemed better after the call.

Drilling update

Spring drilling has taken place in relatively good conditions compared with what we thought they would be back in April.

Although later than I would have liked, I am very pleased with the results.

A few wet areas that are still like porridge have been left, but they are now home to a number of lapwing and skylark, so it isn’t all bad.

The main jobs to be doing while I eagerly await my first proper **harvest** will be yard and track improvements to aid logistics and make the place tidier. We also want to establish some pollen and nectar margins and wild bird feed plots.

Harvest will also be a big step, because after much deliberation I’ve bought my own combine. This completes the machinery line-up required to undertake whole-farm contracting and to offer a complete farming service, and will allow me to develop that side of the business in future.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Matt Redman operates a farming and agricultural contracting business specialising in crop spraying, Avadex application and direct drilling in Bedfordshire. He also grows cereals on a small area of tenancy land and was Farm Sprayer Operator of the Year in 2014.

JOURNAL : Farmers Weekly

As I mentioned in last month's column, since the AHDB set up the Electronic Medicine Book in 2015, the British pig industry has done a remarkable job to reach the target of reducing antibiotics use by 50% by 2020.

Meeting the reduction targets is now compulsory for Red Tractor-assured pig producers. The target is 99mg/PCU (population-corrected unit) and the industry level for 2017 is 131mg/PCU, so we are well on the way to beating the target a couple of years early.

As a company, we have reduced our use to 6.6mg/PCU, which we are extremely proud of.

See also: How Devon pig farmer is saving £30,000/year by slashing antibiotics use

We achieved this by maintaining our high health status through having a closed herd, three-week batch farrowing and investing in new weaner/grower housing, which has allowed us to remove all in-feed medication in the crucial two-week post-weaning period.

We operate a creep-feeding protocol in the farrowing room, which ensures all piglets are eating solid food before weaning. In our new weaner buildings, the water system is sterilised using a chlorine dioxide product, followed by an organic acid that improves intestinal health and water uptake.

This is not a cheap option, but we are finding excellent results without relying on antibiotics. Until a couple of years ago, we really did not know what our antibiotics use was, but since the introduction of the eMedicine Book, we know exactly what we are using and we are striving to reduce our use whenever we can.

Antibiotics benchmarking is now available which allows you to compare your antibiotics use against holdings similar to your own.

Pig farmers always love a challenge and a target to beat. We would rather make things happen than wait for things to happen.

Whoever had the idea of the eMedicine Book deserves a good pat on the back, or maybe even an award.

It got me thinking whether there is such a thing in human health - does the NHS have a league table of surgeries and hospitals for antibiotics use? I would bet there is a world of difference between the best and worst.

JOURNAL : Farmers Weekly

Serving started on 1 May, a week later than previous years to try to avoid having as many late January calves. And, after the pressures of this spring, an extra week for the herd won't be a bad thing.

Cows were all tail-painted the day before, and general bulling activity seems good. This is a relief after the late spring and prolonged buffering with silage throughout March.

Grass growth finally took off in the second week of April and we were able to take the brakes off the cows and hit and maintain a 20-day grazing round, with no silage and easing back the feed in the parlour from nearly 6kg to 4kg.

See also: Jersey cows produce profits from milk solids in Ireland

Grass quality is excellent and the cows are milking well, giving about 1.8kg of milk solids.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

We are measuring grass every week, using this information to track grass growth, average grass cover on the farm and the round length of the cows (how many days it would take to graze the whole farm based on the hectares grazed since the last grass measure).

The information allows us to foresee potential grass surpluses which could compromise quality – or potential deficits.

Walking the farm is also a vital management tool: it's amazing how many actions you can note down by the time it's done.

Fieldwork has ramped up in the past week, with the wintering ground being worked down and resown back to grass. Fodder beet crops will hopefully be all sown by the first week of May, followed by the kale.

Some rented land has posed some issues, having produced very little in the previous two seasons. The conclusion is it's down to historic compaction from potatoes – there was near to no worm activity.

Hopefully a deep subsoil and 2t/acre (4.942t/ha) of lime and chicken manure will help kick-start a crop of AberNiche. Between serving and planting forage crops, 2019 is already coming into focus.

We are looking to recruit a new member to our team on the farm – any energetic and ambitious people looking to progress a career in dairy, please get in touch!

Johnjo Roberts converted his family's 250ha beef and sheep farm on Anglesey to an 800-head spring-block calving dairy in 2014. Maximising grazed grass and good milk solids are priorities.

JOURNAL : Farmers Weekly

Wow, what tremendous growth we have seen in our crops recently. The sprayer doesn't know what has hit it, with T2 fungicides following T1 very rapidly – just a two-week interval in places as the flag leaf showed itself at the usual mid-May timing.

Some might argue that we could have omitted the T0, or the T1, and cut down the fungicide spend. It is such a gamble taking that approach though. We just can't predict the weather two weeks ahead.

You only need a week of rain, or high winds, or very warm weather to reduce spray opportunities.

See also: Tips on how to recruit good arable farm staff

The spring barley, naked oats and millet went in the ground in good conditions. As predicted the spring beans didn't go in, a phacelia cover crop taking their place.

Since this is by a public footpath, signs will tell walkers what we are up to and will highlight the benefits of the phacelia to wildlife, which they should see for themselves when it is buzzing with bees.

Harvest student

It is quite uncanny how I regularly find myself doing the flag leaf spray in the week leading up to the Essex Young Farmers Show while Hew is up at the showground helping set things out.

What a show it was too. Run entirely by the members, it attracted over 15,000 visitors, drawing in the whole farming community, but also attracting the wider population too.

There is a real interest in country sports, food and farming which Essex Young Farmers have tapped in to.

I have been blown away by the quality of young people that we have met recently in the search for a **harvest** student.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

There are some seriously dedicated people out there eager to get on the UK farming ladder. With the right encouragement and support they will flourish and then start to teach you things.

We would have been happy to have any of them join us, but it is Harry who we will be welcoming to the farm for the summer.

Christy Willett farms with her son Hew on 475ha at Parklands Farm, Galleywood in Essex, growing combinable crops alongside diversifications into horse stables on DIY livery, industrial and office lets. Christy and Hew are also AHDB Chelmsford Monitor Farmers.

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It is said you should not go by calendar date, but rather when the conditions are right. However, when you get into May and spring drilling is yet to be completed, it does start to try your patience.

We have now finished drilling, but it has been spread over a two-week period, so should make harvest interesting.

The first block of spring oats is now emerging, but it is not looking pretty. With the soil not being quite dry enough at the time of drilling, then heavy rain and now baking heat, it can be said that emergence is a little uneven.

See also: New spring oat variety with miller backing good bet for 2018

With the second block we ran a disc cultivator lightly 24 hours ahead of the drill and drilling conditions were greatly improved. I think being flexible has to be the key.

Spreading risk

We have not completed our total planned spring drilling area as we decided to spread the risk and leave the grass cover crop in and take a cut of silage.

The winter wheat has really picked up in the past 10 days and a T1 has now been applied. An SDHI-based fungicide has been used where we think there is potential.

Both of our chosen wheat varieties, Graham and Costello, are living up to their good disease ratings.

The oilseed rape has reached full flower one month later than last year, but does look full of promise.

In the winter barley we look to have lost quite a few tillers and I think this is down to the crop having wet feet for a prolonged period of time and not receiving nitrogen soon enough.

I also think the earlier-drilled conventional barley is showing signs of a barley yellow dwarf virus infection.

Jack Hopkins is the assistant farm manager on a 730ha estate in north Herefordshire on predominantly silty clay loam soils. Cropping includes wheat, barley, oilseed rape, spring oats and peas, plus grassland that supports a flock of 1,000 ewes and 25 pedigree Hereford cattle.

JOURNAL : Farmers Weekly

This spring has felt like one continuous conveyor belt of work, with timings of applications continuously rolling from one to the next.

From being very late it now seems growth stages have caught up and become slightly earlier, if anything, than in a normal season (whatever one of those is).

The spring oats drilled in May have really grown rapidly and it really has shown that patience is the key.

See also: Read more from our arable Farmer Focus writers

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Blackgrass has become a more common sight this year, with a few plants in most fields of wheat rather than the odd isolated case we have had in recent years.

Not worth the price

We have been roughing to make sure we keep it at a manageable level.

I think it has come from either muck we imported or balers where we have sold straw, so we are going to stick to our guns and chop all the straw we will not be using ourselves, even though straw prices are going to be particularly high this year.

I have been working closely with Finley Hawkins from Cobb Agri and once again we have taken tissue samples from the wheat.

This showed potassium levels in the crop were slightly lower than it should be, but field levels seemed OK.

Fin said he has seen this across the county, so we will do the same again next year to see whether it has been a seasonal effect or if we need to consider a foliar application.

Commodity prices all seem to be rising, which is good for selling new-crop wheat with its relatively moderate input costs.

However, new-season fertiliser prices are considerably higher than last year. We have taken cover on some UK AN as the price does look as if it is going to strengthen further.

Elsewhere, silage-making is in full flow and this year we have tried an Ag Bag, aiming for more consistency and quality in the silage. It has certainly brought efficiency to the operation.

JOURNAL : Farmers Weekly

What to do with all of that extra time in the office? That is the question that our recent upgrade to superfast broadband has posed.

It's just amazing; no more making a cup of tea while waiting for downloads, and using the Rural Land Register maps to complete the BPS form has almost been a pleasure. Click on the parcel number and it's there.

That is of course tempered with an element of sarcasm; it would be if the map on the screen actually matched what is on the ground.

See also: Read more from our arable Farmer Focus writers

Individual and completely separate fields amalgamated with their neighbours, pony paddocks sub-divided with temporary electric fencing and very many other frustrations detract from the delight of actually being able to view the map.

I wonder how many more mapping exercises we will have to go through before we actually get the true size of the farm.

We shouldn't be messing around mapping to the nearest square metre if farming isn't going to be supported in the future.

Spring has sprung

Now that spring eventually appears to have arrived, I hope you have all managed to challenge nature by sowing crops later than is generally regarded as optimum.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Let's hope the season does balance out through the year so the late-planted crops can make up for lost time.

Winter cereals are romping through their growth stages. Root crops, including sugar beet, are also giving it a good go, especially those that were planted in mid-April.

I look forward to seeing you all at the revamped and re-energised Cereals event next month.

I wonder what the principal themes will be - no doubt how we can get more from less, how to enhance our environment and how to make more profit while providing cheaper food. Or am I just being an old sceptic?

Just one month after the Health and Harmony consultation will surely be too early to have our responses and come out with a plan regardless.

Andrew Blenkiron manages the 4,400ha Euston Estate, south of Thetford. Principal farm enterprises are combinable and root crops, including sugar beet. In addition the estate supports let land, sheep, outdoor pigs, poultry, suckler cows, horses and stewardship.

JOURNAL : Farmers Weekly

At last the sun has returned to the south-west of Scotland and what a difference it makes to to heart, soul and mind.

Our first-cut silage is in the pit. It's a bit lighter than last year, but excellent quality.

Grass for zero grazing is hitting growth rates of 100kg DM/day, which is helping keep purchased feed costs down almost 2p/litre.

The milk market is certainly showing more positive signs, with butter and cream the main drivers.

Our main concern is what next winter's feed is going to cost, with proteins at crazy prices just now and wheat holding firm.

See also: Step-by-step guide to controlling weeds in grass

Forage stocks could be an issue if this summer turns out to be a dry one, with very little carryover from 2017. Still, if the milk price starts with a three, we should manage OK.

The one thing I have really noticed on the farm is compaction on the land. Heavy rains in 2017 took their toll.

A dairy can consume so much time in the yard that the land can very easily be taken for granted, yet drainage, liming and reseeding are key drivers for production and profit.

On my travels last week I attended the AGM of our next generation group at NFU Scotland. I am very excited to be involved with this group, as I feel it is very important to have strong links between young farmers and NFU Scotland.

Agri-politics is not for everyone, but the ones who are inspired must be given every opportunity to express the need for change in our current agricultural policy to help the younger generation develop and grow their businesses.

But this is not just about new entrants. I believe there are many young farmers out there in a family business that feel very constrained in trying new ideas or systems.

How do we change this? Innovation needs to keep happening in our industry for survival, so the young must strive for better and the old must listen and encourage. Both have responsibility here, so take heed.

Gary Mitchell milks 800 cows, with heifers reared on a local farm. Gary zero grazes 80ha of the 195ha he owns. He is vice-chairman for NFU Scotland.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The latest stomach-churning dip on the unpredictable weather ride saw our village make the national news as the wettest place in the country. We recorded 69mm over one night and the following day.

One low-lying grass field became a fast-flowing river as I watched in the 4C ("feels like" -2C) chill.

Exactly one week later I stood in the same spot in a T-shirt in 26C heat, watching the cattle slowly chewing away in the shade.

See also: Kent grower sees top rapeseed yields without using insecticides

Unfortunately, on the damp day we had a meeting at my neighbour's farm, where we were supposed to be looking for useful insect pollinators. They sensibly didn't turn up.

Bird seed establishment

Not for the first time we were told how keeping everything neat and tidy by mowing or spraying does not help the wildlife. I wish someone would tell this to the Rural Land Registry, which has now categorised some of my field corners as ineligible scrub.

We have been replanting some of our wild bird food areas, which have been really pleasing, attracting masses of birds and insects and causing discussion in the local pub.

However, we keep learning and I'm sticking to reseeding every year now as, even with seed mixes suitable for two years, the seed crop in the second year has proved quite variable.

I also need to work on establishment as, ironically, the only intensively cultivated areas on the farm are the environmental patches.

I recently saw spring beans and oilseed rape established together with one pass at Nuffield scholar Andy Howard's farm. I also checked out his newly built cleaner to separate the resulting crop. It will be fascinating to hear the results.

Another scholar, Tom Sewell, has established spring beans plus clover and lucerne into a cover crop at a new trial site in Kent at East Malling Research Centre, now under Niab's auspices.

I'm quite excited about this area as it offers the opportunity to test and showcase new and innovative techniques.

Andy Barr farms 700ha in a family partnership in Kent. Combinable crops amount to about 400ha and include milling wheat and malting barley in an increasingly varied rotation. He also grazes 800 Romney ewes and 40 Sussex cattle and the farm uses conservation agriculture methods.

JOURNAL : Farmers Weekly

Jayne and I and our three sons have just returned home after five weeks spent exploring the UK. We were invited to a wedding in Carlisle, Scotland, of a lad who worked for us here in Valetta 10 years ago.

Jayne and I haven't travelled to any extent before, nor have we camped as a family previously, so travelling to the UK and camper-vanning with three children would be best described as an awesome and epic adventure.

As well as attending the wedding, it was our intention to visit as many of the lads that came to New Zealand to work for us when we were contracting as possible.

See also: Read more from our arable Farmer Focus writers

On a personal level, it was very special to see guys who came to us as bright-eyed 18- or 20-year-olds and now meet their wives or partners, parents and children and get to see what they are now doing.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

All four coasts

We completed 2,800 miles in 25 days. We started in London, then headed to Somerset, then went right along the South Coast, up to Norfolk, where my wife's grandfather served in Pathfinder and successfully courted a Norfolk lass.

After that we crossed the Midlands to complete a figure of eight of the UK, along the way taking in the Peak and Lake Districts, Yorkshire Moors, Scottish Borders and Highlands, Loch Ness, Inverness, Ellon, Perthshire and Yorkshire.

We finished the trip at the Cereals event and managed to touch the sea on all four coasts!

Many of the issues facing farmers are the same the world over. I was struck by the stark differences in land tenure between our countries and circumstances that are steeped in history dating back hundreds of years.

The most common question I was asked was how I farm without any form of government support.

We loved our trip. It was not without its challenges, but awesome for us as a family. If you saw a white camper with NZ and a KIWI on the back taking photos over your fence; that was us!

Absolutely loved our time, thank you all very much.

JOURNAL : Farmers Weekly

May is a fantastic time of year if you are fortunate enough to live and work in the countryside and I am seeing more wildlife than ever on a daily basis.

However, I – like others – am becoming ever more frustrated when I read flippancy comments on social media by influential professional persons and charitable companies about how modern farming is resulting in a massive decline in wildlife numbers.

This simply isn't the case. I do wish these people could be made to either prove their point or retract it with an apology. Sorry, rant over.

The farm is looking well, although we have a few more ruts than I would like to see. Travelling hasn't been easy at times this spring and more remedial work will be required to put this right after harvest.

Blackgrass numbers are manageable and certainly lower than this time two years ago, which is promising. My biggest frustration this year is volunteer barley in wheat.

I can understand it on fields we have grown barley on in the past, but we have it both where we have never grown barley and in new seed, so it looks like some hand-routng is required.

See also: Blackgrass battle looks winnable for Suffolk grower

Building work

Between the showers and glorious sunshine we have been carrying out some building work in one of our old grain stores. The partitions were originally made of timber and had become prone to breaking or moving, causing a degree of hassle every year.

They have now been replaced with steel uprights and concrete panels. We have also raised the height from 3m to 4m, increasing storage capacity by a thousand tonnes in the process.

All we need to do now is learn to grow bigger crops to fill it.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The elder harvest has started and so far it looks as if it could be a bumper year. My go-to reference plants are carrying more than 20% more flowers than normal, which is fantastic.

The slowdown in the weather and return to more spring-like conditions is also helping to give us more picking time – fingers crossed it stays like this.

JOURNAL : Farmers Weekly

So, that's our first flock of hens complete. Hens are out, building mucked out, washdown team in, cleaned, disinfected and diatomaceous earth applied.

That one sentence does not really sum up the effort involved in the past three weeks. Hard graft, stress, several bruises and a burnt-out motor, followed by an endless list of jobs to do before the new hens arrive in a week or so.

The hen muck is going on to the fields being sown into brassicas for finishing lambs on this autumn and winter. We have applied manure, ploughed, worked and sown 7.2ha.

See also: Business Clinic: What tax relief can be claimed for new poultry unit?

We have also sown 32ha of barley/vetch wholecrop, undersown with red or white clover and high-sugar grasses. Fields are already starting to green up nicely.

Ewes and lambs are now out of their lambing fields and all silage fields have been shut up. This has happened later than we would have liked, but the grass growth on the permanent pastures has been very slow.

The yearling bulling heifers have been weighed and pelvic measurements taken and their comprehensive BVD, leptospirosis and lungworm vaccination programme has commenced. A cobalt, selenium, iodine and copper bolus has also been given.

Four out of 64 heifers failed their pelvic measure and one had temperamental issues, so we have 59 to bull ourselves or sell. The last of the prime cattle are now away at an average of 24 months old.

Calving is nearly over, with three left to calve at the time of writing (29 May). It has been a long six weeks and everyone has run out of steam now.

Calving, lambing, drilling, hen depletion and clean-down in a short period of time takes its toll. A holiday needs to be booked.

JOURNAL : Farmers Weekly

I am sure we are not alone in having endured a challenging spring, but we can see the light at the end of the tunnel; the fields are all drilled, everything has received fly control and lambing is over.

When our shepherd departed at the end of February, we thought: "It will be rough, but we can do this."

The main flock and ewe lamb lambing is staggered and we have lambed 880 on our own before, so we thought: "We will dig deep and get it done."

However, we didn't anticipate the wet weather (leaving us to complete lambing beats on quad bikes and occasionally just on foot) and the repercussions it would have for us trying to get our new heavy land farm drilled.

See also: 7-step guide to planting brassica crops

Lighter gear gets job done

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Rob wrote last month about the Massey riding to the rescue and also that we still had empty fields. Well, some of those were set to enter mid-tier grassland options this year, so we drilled them with grass early and abandoned the last crop.

The others we battled in between us and our contractor. In total our 3.3m drill (£3,300), Massey (£24,000), Cultivator (£800) and rolls (£600) covered about 141ha in the autumn (establishing forage and greening crops) and have done 80ha this spring.

This has been drilling a mix of combining peas, spring barley and grass. For us to cultivate, drill and roll costs us £33.77/ha and we could travel over all of our acres.

We know this kit couldn't do the whole 607ha and we know it's been an exceptionally wet year, but it does make you think.

The results from the combine will be fascinating, with "cheap" drilling right next door to "proper" drilling – or "light kit" next to "heavy kit".

Our combined tractor/drill weight was about 7t - the Fendt 939 alone is 11t without an implement. Should these big, heavy tools be left purely for primary cultivations in the autumn?

The cost implications are massive, but as we are all trying to do more spring work, are these larger machines really the future? Yield and price of wheat are certainly not growing in line with machinery increases.

JOURNAL : Farmers Weekly

I'm writing this looking across Lake Garda while on a week's break. When this trip was booked I fully expected that the bulk of the spring workload would have been finished by now.

Instead I have left Andrew and the team at home carrying on with potato planting while I'm off chilling out.

I try to live by the theory that you should leave the farm once a day, the village once a week, the county once a month and the country once a year.

See also: 3 fungicide strategies to fight resistant potato blight

It's a nice idea, but, in practice, it doesn't work like that. Some days I seem to struggle to get out of the office, let alone get off the farm!

Min-till experiment

Potato planting seems to have gone relatively well despite its late start. This, combined with what is likely to be our latest ever finish, means I can't see that we will achieve last season's yields. Maybe that will be a good thing.

We have been a bit radical this year and not ploughed everything going into potatoes. We found that some of the ploughed land, following the wet autumn and winter, was turning over in big slabs which just slowed the progress of the bed tiller.

Instead we have used the Sumo Trio on some selected fields as an experiment. The structure seemed much freer without the big soil blocks to break down.

Otherwise the cereals appear to be galloping through their growth stages. Wheat T1 applications seemed to take forever as there was such a range. By the time we got to T2, growth stages had tightened up considerably, making it rather more straightforward.

When I was doing my BASIS training a wise, experienced agronomist always said you could pretty much predict the T2 timing by the calendar date, and I have never found that to be widely inaccurate.

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Nature has a marvellous way of putting things right and keeping them on track.

Jeremy Oatey manages 1,200ha of arable land near Plymouth in Cornwall and is 2013 Farmers Weekly Arable Farmer of the Year. Cropping includes wheat, barley, OSR, oats, beans, potatoes, onions, swedes and daffodils.

JOURNAL : Farmers Weekly

I am sitting here writing this having just completed our first-cut silage. The bank holiday weekend has seen temperatures get into the mid 20s, which has allowed us to do a 24-hour wilt.

We were aiming for 35% dry matter, but at times the lightest crops were almost blowing away as they were so dry. I am intrigued to see what the outcome is when we open up the pit in a month's time.

This spring has certainly been a challenge, but I have enjoyed getting to understand how our farm deals with it and it has certainly been made evident by the yield variation across fields.

Some crops yielded poorly and I'm getting some samples done to see if there is anything sinister in it.

See also: Optimise second cut with aftermath nutrition

I think the main issue is simply the awful winter and spring we have had. As I was putting fertiliser on this evening I was pleased to see the aftermaths almost greening up in front of me.

Fingers crossed the moisture in the ground and a bit of sun will lead to a bumper second cut, as we will need to make up some bulk.

We will hopefully get maize planted this week if the weather stays dry enough. We tried to get both farmyard manure and slurry on the stubbles two weeks ago, but had to abandon ship as ground conditions wouldn't allow it.

Away from the fields, I am pleased to say we got the green light for the grant funding on our shedding gate; one tool I really cannot wait to get up and running.

I will end with an irritation about the fertility indicator we are all encouraged to use, Pregnancy Rate. I found out this week that different software uses different indices when calculating submission rates.

Once again, when we are all trying to benchmark our performance, you find there can actually be significant variation depending on what software is being used to calculate the figure, so we are left pondering if we are at 23%, 30% or somewhere in between.

If anyone can shed any light on the matter then please get in touch @LowerWoodFarm.

Henry Wilson milks 225 Holsteins on a tenancy alongside his parents Jean and Chris in Alberbury, Shropshire. Cows calve year-round with milk supplied to Muller on a non-aligned contract. Focus is placed on good cow health, fertility and business efficiency.

JOURNAL : Farmers Weekly

Police are searching for the driver of an Audi who crashed into a farmer's field in Bedfordshire.

The silver Audi A4 was found abandoned in a field containing livestock in Ampthill on Sunday (24 June).

It is believed the Audi may have been stolen before it was crashed and then abandoned.

See also: Tractors on the road: Rights, wrongs, rules and regulations

Traffic police from Bedfordshire, Cambridgeshire and Hertfordshire Police (BCH) tweeted pictures of a farmer using a Manitou telehandler to remove the vehicle from his field to the roadside.

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The mangled vehicle was later collected by a scrap car recycling company.

Picture shared on Twitter

The force tweeted: "If you are going to crash into a farmer's field with livestock and cause damage, then run from the scene overnight, leaving the field insecure, do not expect your vehicle to be recovered with too much care."

Twitter users have retweeted the picture more than 180 times. It has also received more than 600 likes.

Police said enquiries were ongoing to trace the driver. Anyone with information is asked to call Bedfordshire Police on 101.

JOURNAL : Farmers Weekly

The Farmers Apprentice bootcamp (15-20 July) will be an action-packed, fun-filled week when our shortlisted contestants will go head to head.

They'll be put through their paces in a series of tasks designed to test them – and their farming skills – to the max. Here are 10 of the traits we'll be looking for in the ultimate winner.

1. Marketing maestro

There's no point producing something if you can't sell it, so you have to know your market and, increasingly, farmers are dealing directly with consumers.

This means you'll need to be confident, concise and convincing when conveying the key benefits of our great British produce – whether that's traceability, taste or welfare standards. Our 2016 star sellers had to retail meat at the Great Yorkshire Show.

See also: Meet the 2018 Apprentice finalists

2. Crop selection guru

You won't make many decisions more important than selecting what to grow.

So, when contestants were tasked with creating a planting and management plan for wheat, they had to research the soil, climate, pests and diseases and varieties, then combine this data with expected costs and returns using powerful farm management software. The goal? Turning a healthy profit.

3. Technology nous

New kit has a vital role to play in reducing costs, increasing returns and farming in a more environmentally friendly way so we gave competitors the chance to fly a drone to capture field facts, then use it to create a fertiliser plan, which they had to input into a state-of-the-art tractor.

Not forgetting having to jump in the cab and actually get spreading, of course.

4. Husbandry heroes

Stockmanship is a fundamental skill for many farmers, so previous apprentices have been put through their paces doing everything from checking the condition of pigs to assessing lambs' readiness for market and preparing cattle for showing.

They've also had to build pens and round up the animals to begin with, of course, which can bring a whole set of challenges of its own.

5. Happy hands-on

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The theory's all very well, but there are plenty of times when you have to roll your sleeves up. Welding is a tough task – perfect, then, as a way of challenging our would-be winners. Some prospered in the workshop; others were, ahem, not quite so good...

6. Machinery maintenance

Not many farms have got a mechanic on hand, so a few maintenance and repair skills can be vital. The scenario we created was a simple one. Rain's on its way but you've got a few dry hours, so you need to get a combine good to go.

Our apprentices were given some instructions, a few tools and – under the watchful eye of an engineering expert – told to get working

7. Business brains

Cashflows, costs, revenues, profit. Figures matter. And not solely when it comes to the tried and tested aspects of agriculture – nowadays you need to think laterally, whether that's adding value, niche markets or diversification.

We set contestants the individual challenge of formulating a business plan for a college farm which would return a profit, while delivering on its educational objectives. They then had to present it to the judges in a 10-minute Dragons' Den-style pitch. No pressure then...

8. Leadership

We're looking for go-getters who have a vision, make decisions and enjoy taking responsibility. Such natural leaders are also good listeners and can inspire those around them.

That's why bootcamp tasks often have a leader (we might choose them; or we might get the contestants to) which reveals a lot about everyone involved. Are you someone who's happy to put your head above the parapet?

9. Communication counts

Whether it's an email to your agronomist, a phone call to an auctioneer, a conversation with a family member or a letter to your bank manager, you need to be clear, succinct and persuasive, sometimes in high-pressure situations.

Over the course of the week we'll be keeping an eye on what you say and what you write – and how you say and write it. Here's a tip: be brief!

10. Teamwork

One plus one equals three. Well it doesn't; actually, it equals two, but you know what we mean. It's all about the sum of the parts. This means coming up with a shared vision and agreeing responsibilities. When people work together effectively, the results can be incredible – and very satisfying!

A word from one of the judges

Having a willingness to learn is one of the most important attributes required, says farmer Robert Neill from Roxburghshire.

"Farmers have always been good at adapting, but agriculture could be about to go through some of the biggest changes it's ever experienced, so I want to see apprentices who are keen to learn, have a hunger to acquire new skills and are open to new ideas.

"Farming is so specialist nowadays that you can't be knowledgeable about everything, but if you don't know something, you should be prepared to ask someone who does.

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"The successful farmer of the future will also be very willing to embrace new technology to help improve efficiency, so IT skills will become ever-more important.

"I'd also like to see the apprentices display huge reserves of passion – we need the next generation to be so enthusiastic about what they do that they'll seize opportunities to promote agriculture to the general public."

What is Farmers Apprentice?

Farmers Apprentice puts 10 young people through a week-long bootcamp that exposes them to some of the best in technical equipment and expertise to reflect real challenges faced by UK farmers.

At the end of the week, one will be crowned Farmers Weekly Farmers Apprentice 2018, winning £10,000 to get a foothold on the farming ladder.

Sponsored by

See the Farmers Apprentice website for more information about the competition and bootcamp details, and follow the competition @farmersweekly, #farmersapprentice.

JOURNAL : Farmers Weekly

A Hertfordshire farmer at loggerheads with his local council after an outdoor pursuit company set up camp in adjacent woodland hopes his three-year battle may soon be over after the local authority admitted it made a mistake.

William Ashley, who farms at Monks Green Farm, near Hertford, said his ordeal began after the Bushcraft Company erected 56 tents on land next door.

The company uses the woodland to host residential camping trips for students and schoolchildren aged seven to 18.

See also: Five tips to speed up planning permission

Mr Ashley said coach drivers often get lost trying to find the campsite and end up travelling down his farm drive.

On other occasions, parents and taxi drivers coming to collect children from the site knock on his door ask for directions. Verges were damaged as the increased traffic took its toll on local lanes.

Land used for tented camping for more than 28 days a year usually requires planning permission – or an exemption.

Mr Ashley said he was convinced Bushcraft had neither – but it took three years before East Hertfordshire District Council acknowledged they needed one or the other.

Nightmare

"What Bushcraft do with the kids is fantastic," said Mr Ashley, who erected a signpost in an effort to point coach drivers in the right direction and away from his farm. "But coaches were rocking up the drive and then having to back out again because they couldn't turn around – it was a nightmare."

Section 269 of the 1936 Public Health Act requires an operator to obtain a special licence from the local authority for land used as a campsite for more than 42 days in a row – or 60 days in total during any 12-month period.

The Bushcraft Company told Farmers Weekly it had worked closely with the local authorities to obtain all necessary licences to operate at the site. These included a Section 296 licence and planning permission to erect a storage compound, it added.

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Signage

In a statement, Bushcraft said: "The company has signage located at the entrance to the site and provides all schools with detailed instructions of where coaches need to drop off and collect school groups at the start and **end** of their camps."

After being contacted by Farmers Weekly, a spokesperson for East Hertfordshire Council said the local authority had now advised Bushcraft it would either require full planning permission for the site or a certificate of exemption from Natural England.

"The council has written to the company giving them 28 days to apply for either of these," said the council spokesperson. "The company already has a licence under the Public Health Act 1936 – although such licences only cover how campsites are run."

Tricky situation can be expensive to resolve

Situations like this can be incredibly frustrating and leave farmers feeling powerless, says Julie Robinson, partner at Roythornes Solicitors.

"Private actions are available, but cost and the chances of success are major obstacles except in the most indefensible cases," she explains.

In cases of simple trespass, farmers can take action, but it is probably not worth pursuing except where there is continuous or repeated trespass creating significant risk.

"You are best asking people politely to leave and putting up more private land notices. If people come on to your land with the intention of disrupting your lawful activities, that's a different matter; such aggravated trespass is a criminal offence."

A private nuisance claim may also be possible, but again this is best saved for situations where there is continuous and unreasonable interference with the use or enjoyment of your land.

Indirect options rely on hard-pressed local authorities and others to take action. You might act if planning regulations are being breached, or if roadways are being used in a way that exceeds their status, such as a bridleway being used by vehicles.

You may also ask whether conditions of any licence or exemption under the Public Health Act 1936 are being observed, or whether the use of the land is exceeding its permitted use, for example under a tenancy, licence or restrictive covenant.

There might be grounds for a statutory nuisance action by the local authority, but the bar is set high.

Consider whether an activity is unreasonably and substantially interfering with the use of your land or likely to injure health. This could include letting rubbish pile up or unreasonable noise.

JOURNAL : Farmers Weekly

The NFU has warned farmers they face rises in climate change taxes unless they register for a discount scheme before the 31 July deadline.

The climate change levy (CCL) is a tax charged on gas, electricity, liquefied petroleum gas (LPG), coal and coke used by UK businesses.

In April 2019, CCL rates levied on energy bills will increase by about 3% for electricity and 7% for gas for any businesses that do not register for a discounted rate under an NFU scheme.

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See also: Why farming's being asked to do more to fight climate change

Under the CCL scheme, eligible businesses can receive a discount in return for meeting energy-efficiency or carbon-saving targets. Achieving these targets will enable the business to receive a discount until March 2023, the NFU says.

The NFU CCL scheme gives up to 93% levy reductions on electricity and 78% on gas to qualifying businesses in the pig, poultry and protected horticulture sectors. It is therefore imperative to sign up to the scheme before the deadline of 31 July, the union warns.

Example of annual CCL savings for poultry farm using 350,000 kWh of import electricity and 45,000 litres of LPG

Year

Non-member pays

CCL member pays

Member saving

2012-13

£3,615.50

£1,265.43

£2,350.08

2017-18

£4,608.10

£605.71

£4,002.39

2019-20

£6,907.75

£630.36

£6,277.40

In addition to the cost saving, the NFU said joining the scheme would help with business marketing by demonstrating to customers an official and committed approach to improving energy sustainability.

How to join

Once the decision has been made to join the scheme, farmers will be asked to enter into a climate change agreement (CCA), according to advice from the NFU-owned consultancy FEC Energy.

This involves the following steps:

Provide your base year data (energy and production). The base year should be the continuous 12-month period from January to December 2008 unless there are valid reasons why it is not available – for example, the site wasn't in production or was run by another operator.

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Check the “70% rule”. You need to provide evidence that you comply with the 70% rule – that the energy you use on the eligible processes alone accounts for more than 70% of the total supplied to each facility.

Complete a “facility eligibility form” giving all essential details, including an annotated site plan. FEC will check your details and make a formal application for you based on them.

JOURNAL : Farmers Weekly

Farm leaders in Scotland have urged the Scottish government to support proposals to tackle the blight of livestock worrying.

Emma Harper MSP recently announced her intention to bring forward a private members bill to the Scottish parliament to address livestock worrying.

See also: Special investigation – Police fail to crack down on sheep worrying

NFU Scotland has now written to rural economy cabinet secretary Fergus Ewing seeking Scottish government support for the proposed Bill.

In the letter, NFUS has mapped out five areas it believes merit inclusion in any new legislative framework or guidance:

Livestock worrying to become a recordable crime

All non-working dogs to be on a lead around sheep

Police powers to issue dog control notices

Police powers to seize dogs and have dogs destroyed

Fines for offenders and full compensation to farmers

NFUS president Andrew McCornick said: “Terrible events around Scotland this spring demonstrated the devastation caused by out of control dogs.

“The graphic images of dead and mauled sheep and lambs have highlighted the impact of irresponsible dog ownership on farmers’ livelihoods and action is needed.”

Blight on farming

Mr McCornick said the union welcomed Ms Harper ’s proposed Bill and had taken the opportunity to meet with her to discuss the issue.

“Despite a vast amount of awareness raising by many stakeholders, including Police Scotland, livestock worrying remains a blight on Scottish livestock farming,” he said.

“There is no such thing as an irresponsible dog, only irresponsible dog owners.

“This proposed Bill presents a genuine opportunity for Scottish government to back change that will make a massive difference to livestock keepers across the country.”

Financial costs

Ms Harper said dog attacks were harmful to animal welfare but also had severe financial implications for farmers.

“Livestock worrying is an enormous issue which I know is of concern to people across the agricultural sector,” she said.

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Mr Ewing said it was a criminal offence for a dog owner to allow their animal to worry livestock, and local authorities have the power to issue dog control notices.

The Scottish government had written to all 32 local authorities, seeking further information about how they use their powers, he told MSPs.

“Working with partners, we will consider all practical measures that can effectively tackle livestock worrying by out-of-control dogs,” said Mr Ewing.

JOURNAL : Farmers Weekly

Farmers who responded to a rural crime survey could help secure fairer funding for police battling to keep the countryside safe, say campaigners.

Some 20,260 people responded to the survey, which was organised by the National Rural Crime Network. The findings, to be published next month, will be sent to Home Office minister Nick Hurd, who allocates police funding to fight crime and anti-social behaviour.

See also: Farm security advice to combat rural crime

Network chairman Julia Mulligan, who addressed an NFU Council meeting this week, said: “Ministers are in no doubt of my view on this issue. The funding formula for police forces does not recognise the costs of policing rural areas. This needs to change.”

Under pressure

Ms Mulligan, who is also police and crime commissioner for North Yorkshire, added: “Providing services across large, sparsely populated geographical areas is expensive and, as resources come under greater pressure, this is becoming even more challenging.”

Key challenges faced by rural police forces are not properly reflected in government funding decisions, Ms Mulligan told the NFU meeting at Stoneleigh on Tuesday (19 June). The survey results would provide evidence of this – ensuring the voices of farmers affected by crime were heard by government ministers.

Many rural constabularies are doing what they can on limited resources. In Northumberland, for example, police are working with the National Vehicle Crime Intelligence Unit and the Plant and Agriculture National Intelligence Unit to combat agricultural machinery theft.

Stretched all the time

Lincolnshire police deputy chief constable Craig Naylor, who is also the National Police Chiefs' Council lead for rural crime, said: “We are stretched all the time, so we look at the threat, the harm and the risk that we face, and we prioritise.”

Rural crime was a priority for Lincolnshire police, which served a large rural county, said Mr Naylor. Rural challenges included hare-coursing, fly-tipping and farm theft, which were all growing problems, he said.

Recommendations from the last National Rural Crime Survey – carried out in 2015 – had fair funding as one of its priorities for change. But three years on, Ms Mulligan said the challenge for rural police forces remains.

Hidden crimes

It was vital that the needs of rural communities were not overlooked by the Home Office, said Ms Mulligan. “I hope the minister recognises that this situation cannot go on and that rural communities deserve better,” she said.

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The Home Office says its funding formula is based on a range of factors. It says police are seeing more complex crimes being reported, including previously hidden crimes such as child sexual exploitation and modern slavery – and forces must respond to terrorist threats too.

Home Office minister Nick Hurd has said that providing funding certainty over the next two years to enable the police to plan in an efficient way is his priority. Proposed changes to the funding formula will therefore be revisited in the 2019 spending review.

Make your voice count

Police say all crime should be reported – no matter how trivial. Only then will the true extent of the challenges faced by rural communities be revealed – and the necessary resources deployed to combat crime in the countryside.

Farmers are urged to liaise with their local police and crime commissioner, who is elected to make sure local police meet the needs of the communities they serve. Commissioners should be contacted about how areas are policed and the police budget.

“Intelligence and information is really important,” said the National Rural Crime Network’s Julia Mulligan. “If the police don’t know about it, they can’t do anything about it.

“If something happens, let the police know. We know from our last survey that people are so fed up with the response they get that they think there is no reason to report an incident. But if we don’t have the evidence of what is happening, we can’t put the resources there.”

Rural crime blights farmers' lives across the UK

Fly-tipping is daily occurrence in Hertfordshire

Waste is illegally dumped every day on farmland in Hertfordshire – but little is done to reprimand the culprits, says local grower Will Dickinson, of Cross Farm, Harpenden.

“It is utterly dispiriting beyond belief,” he says. “I suffer fly-tipping crime every single day of the week. Why should I, as a member of the public, have to suffer crime? Every single day somebody chucks some rubbish on my farm.”

Earlier this year, more than 120 fridges were dumped on surrounding farmland and by rural roads. Seven fridges were left in a single field – with dozens more abandoned on grass verges and in the surrounding area.

Mr Dickinson says he caught some of the fly-tippers red-handed. But he says they were let off by local police, who arrived on the scene but didn’t know what to do.

Heavy losses from livestock rustling in Dorset

Sheep have gone missing in Dorset almost every week for the past eight weeks – stolen by livestock rustlers, says local farmer James Cossins.

Mr Cossins, who farms at Tarrant Rawston, Blandford Forum, says he gets on well with local police. But he adds: “Most of those sheep then go out of the county – and there seems to be little co-operation or communication with [police in] other counties as to where they go.

“We are looking to put tracers either on or in the sheep so we have some idea where they do end up, but we need some sort of support for it. We’ve also asked traffic officers late at night if they see a cattle lorry or trailers being towed to stop and ask them what they are doing.”

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The problem is that many police officers don't realise the need for movement licenses or livestock passports – and don't ask the right questions, says Mr Cossins.

'Siege mentality' as travellers camp in Essex

A 70% increase in illegal traveller encampments since 2015 has sparking concern in Essex, says farmer Robert Stacey.

"Last year, we had 365 encampments on private property – mostly farmland," says Mr Stacey, who farms near Chelmsford. Police do their best, but "it leads to a siege mentality across the county, with gateways barricaded", he adds.

After one encampment was set up last year, Mr Stacey says police immediately visited local households and advised them to make sure any property was locked and secure. "Obviously, they know there is going to be trouble," he explains.

"For farmers, it is a frustration and the mess that is left behind, you have to clear up. Often it contains human excrement. It is unjust that one section of society appears to be beyond the law at the moment."

Hare-courers run amok in Lincolnshire

A police policy of seizing dogs from hare-courers has helped to ease the pressure that the illegal sport puts on farmers – but the problem persists, says Lincolnshire grower Mark Leggott.

"These people are so brazen – they are coming into our fen five times a week," he says. "We know them by their first names, they say good morning as they go past and carry on with their hare-coursing."

The fines imposed by the courts are not enough to act as a deterrent, says Mr Leggott. "They just laugh and say we'll be back tomorrow. Why can't we have three strikes and you're out? They don't have to come coursing."

Mr Leggott says he understands why the Home Office is opposed to custodial sentences. But he says it is getting to the point where prison is the only option.

JOURNAL : Farmers Weekly

Farmers are being urged to take extra care when working near overhead power lines in a bid to reduce potentially fatal incidents on farms.

The annual "Look out, look up" electricity safety campaign was launched at the Cereals event this month, ahead of the busy harvest season.

According to the Health and Safety Executive (HSE), the agriculture industry is statistically the most dangerous industry, claiming the lives of about 30 people in farm accidents each year.

See also: 10 shortcuts that could kill you at harvest time

The Energy Networks Association, which organises the annual campaign says one or two people die each year from electrocution caused by touching power lines with machinery.

<https://youtu.be/sdDT1Q4He9E>

In addition, there were also 1,140 near-miss incidents involving machinery and equipment contacting overhead electric power lines where serious injury or death was a possibility in the past five years.

Bigger machinery

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Every year there are accidents involving power lines on farms – all of which are totally avoidable Phil Latham, NFU Cheshire

In recent years, farm machinery has become bigger and taller and dangers can occur during ploughing, using irrigation pipes and ladders, loading or unloading vehicles, using combine harvesters, tipper wagons or trailers in fields and stacking materials.

Cheshire dairy farmer and NFU Cheshire county chairman Phil Latham, said: “Every year there are accidents involving power lines on farms – all of which are totally avoidable.

“My advice to my fellow farmers in the region is firstly make sure everyone knows where the lines crossing your land are.

“This means the farmer, their staff and visitors – especially delivery drivers and **harvest** staff. Don’t stack under or near lines.

“Lastly, check the height of lines on your land. If there is a problem, get it sorted with your local power network.”

How to stay safe when working with farm machinery near power lines

Check the location of underground electricity cables and overhead electricity power lines on your land

Contact your local power network for plans showing where electrical equipment is and add it to your farm map

Tell visitors, contractors or casual workers about the presence of electricity cables and lines

Look up when loading or unloading vehicles, using tipper wagons, trailers or stacking materials

Be extra careful when ploughing, using irrigation pipes, ladders and combines

What to do if a vehicle, equipment or machinery either contacts or brings down a power line

Stay in the cab and if you can use your mobile, ring 999

Warn others to stay well clear

If you need to get out of the cab, jump well clear so no contact is made between you, the vehicle and the ground at the same time

Never touch the vehicle once you are on the ground and run well clear

Do not return to the vehicle, wires may re-energise without warning

Assume the cables are live, even if they are not sparking

UK Power Networks’ 24-hour emergency helpline is 105 or 0800 3163 105. Add this number to your phone contacts.

Farm fatalities after machinery contact with overhead power lines

November 2016 Young farmer Jackson Maplethorpe, 18, died after being electrocuted when his tractor-trailer came into contact with an overhead power cable at his family farm in Digby Fen, Lincolnshire.

April 2016 Matthew Drummond, a self-employed tipper wagon driver, died after the arm of his lorry-mounted crane touched overhead power lines while he was unloading sand at Heaton Farm, near Rochdale, Greater Manchester. The farmer was later fined £18,000 for health and safety breaches.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

January 2015 Edward Evans, 52, a scrap metal collector from Elton, Cheshire, hit the power lines and died after he attempted to collect broken lightweight metal cages on Holm Farm in Ince. A farmer was later ordered to pay almost £100,000 for health and safety breaches.

JOURNAL : Farmers Weekly

All three finalists have been thoroughly tested and have demonstrated their ability to manage change in a large business.

A common strength was the plan each had to put their business in a strong position through the next few uncertain years.

The 2018 Farmers Weekly Farm Manager finalists

Andrew Mahon, The Bromborough Estate, Wellingborough, Northamptonshire

Mike Shapland, James Foskett Farms, Bromeswell, Suffolk

Chris Singer, Carington Estates, Bledlow, Buckinghamshire

The judges

Chris Baylis, 2017 Farm Manager of the Year

Charles Matts, independent judge

Suzie Horne, Farmers Weekly business editor

See also: Meet the 2018 Farmers Weekly Awards finalists

Andrew Mahon, The Bromborough Estate, Northamptonshire

In 10 years Andrew has increased profitability and reduced risk, so that the farm he manages can invest and become sustainable for the next generation.

He has diversified cropping and income, embracing renewable energy and Countryside Stewardship alongside a switch to no-till drilling, which has slashed establishment costs.

Passionate about educating the public about farming, he fulfilled this mission almost too successfully in 2015 when 1,600 people attended his Open Farm Sunday event – about 800 had been expected.

In cropping terms the biggest change in recent years has been to adopt the conservation agriculture approach, with the first move made after the terrible harvest of 2012 with the introduction of strip-till drilling.

Two years later the next big step was a cross-slot drill to fully embrace conservation agriculture, aiming for low soil disturbance, diverse cropping and to keep a living root in the soil as much as possible.

Farm facts

Combinable crops for premium markets

Conservation agriculture embraced; no-till system

Manager, one full-time employee, one seasonal

GPS guidance on all tractors

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Heavy investment in kit over past three years

Large leased solar park, smaller owned site

Marketing

Andrew grows Groups 1 and 2 wheats for premium markets, selecting varieties for disease resistance. He regularly supplies Warburtons, Budweiser and Weetabix.

Most crops are grown on contract or with a premium agreed prior to sowing. He likes to start **harvest** about 50-60% sold.

Budgeting and benchmarking against other heavy clay farms is carried out with a farm business consultant to get a good focus on business costs and margins. Machines are costed individually so running costs can quickly be assessed.

The move to no-till means crops are established for about £60/ha including rolling and occasional mole draining, compared with £135/ha for the conventional approach.

Most of the farm work is carried out by Andrew and one full-time employee, with regular seasonal help. Overheads have been trimmed by Andrew taking on work that the farm's land agent would traditionally have done – for example, negotiating lease terms for a 32MW solar park.

An annual health and safety review is run by a consultant, with staff encouraged to take the lead.

Andrew is responsible for farm strategy and investment and meets informally once a week with the estate's owner, with quarterly management meetings held to report on performance against budget.

The farm entered ELS in 2011, followed by a Countryside Stewardship agreement in 2017, with 10% of the land now in environmental options. "This, coupled with our cover crops and zero till, is providing a great environment for wildlife," says Andrew.

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Technology and innovation

A further step towards full conservation agriculture brought sheep back into the arable rotation last autumn, with a local grazier bringing his flock to cover crops.

Andrew is improving the management of 80ha of traditional woodland, securing a grant for a forwarding trailer to supply timber for chipping to fuel a biomass boiler, which heats a large house, hall and function room.

Nitrogen fertiliser is being reduced by 10% each year, replaced with other sources of nutrients including digestate. Andrew also hosts fungicide trials every year and this year's new combine with on-board weighing will give more accurate data from the trials.

In 2015 he stopped using insecticides and believes the business is no worse off for it.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Looking ahead

Andrew's five-year plan is to continue increasing non-farming income, with the conversion of an old piggery to industrial units his latest project.

Recent machinery investments have set the farm up well, with some spare capacity so no significant fixed cost increases are expected for the next few years. Over that period, reliance on pesticides and other artificial inputs will be further reduced.

Keeping a tight rein on all costs, Andrew aims to be well-placed when a new agricultural policy is introduced.

Judges liked

Diversified to reduce risk and improve financial sustainability

Very active in welcoming public, promoting wider understanding of farming and food production

Adopts new techniques

Good understanding of soil health, recently introduced livestock into arable rotation

Adds value through end-user contracts

What the judges say

"Andrew is proactive over many of the risks to the business, including Brexit. He has reduced costs through adopting conservation agriculture and his excellent public engagement shows he is a real ambassador for the industry."

Mike Shapland, James Foscett Farms, Bromeswell, Suffolk

Multiple parcels of land across a wide area, high-risk organic cropping and managing more than 20 full-time and up to 60 seasonal workers – these are daily challenges for Mike.

In eight years since joining James Foscett Farms, Mike has dramatically increased the organic enterprise, overseen a rise in cropped area and huge investment in storage, a workshop and staff facilities.

Carbon footprint is being reduced through 300KW of solar and an Organic Entry Level scheme provides wildlife margins, among other benefits.

Farm facts

Diverse vegetable cropping, some cereals and sugar beet

Main crops – potatoes, onions and carrots

Organic potatoes, onions, beetroot, French beans, sweetcorn, butternut squash, beetroot, courgettes

Light, free-draining irrigated grade 4 sandy loam soils; coastal climate allows early season production

Marketing

Profit from high risk crops can fluctuate wildly from season to season. Mike manages price risk by having as much as possible on fixed price contracts, and marketing potatoes and onions through a co-op and a producer organisation (PO) respectively to add value.

The ware potatoes are mainly earlies and are 70-75% contracted pre-season.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Mike oversees the marketing of a growing volume of organic produce, including to national box schemes and farm shops. The business also has many individual seed potato customers.

Organic production is also largely priced before planting. The risk here is not in the price but in production volume, quality and production costs.

His attention to detail clearly extends to investing in and empowering his team of 21 full-time and 60 seasonal workers. There have been significant internal promotions to finance manager, irrigation manager and operations manager.

A comprehensive training plan motivates staff, with courses ranging from crop storage to management and leadership. Health and safety good practice is integral to day-to-day operations, evidenced by a thorough induction process.

An annual outing to Newmarket races, several barbecues and a further trip for the seasonal workers also help with motivation.

Staff meetings at several levels are held regularly where an update is given on the performance of the business, plans, and health and safety. Daily texts inform staff of who is working on what and where.

The nature of operations means that large kit is often moved several hours before normal daytime traffic begins, and Mike ensures staff are considerate road users.

The farm hosts visits for a range of groups, from students to local farmer discussion groups and growers from other countries.

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Technology and innovation

Mike drives the capital spending plans for machinery and equipment, with the larger investment decisions such as the recent new store, workshop and staff facilities made in conjunction with his fellow director and employer James Foscett.

Changes in technology have driven recent investment – for example, in a Tillerstar cultivator, which gives better quality crops and less damage but without the cost of traditional destoning.

Machinery is mainly owned, with a significant proportion including destoners, tractors and cultivators bought second-**hand**

In-house machinery manufacturing includes a system for in-season injection of liquid fertiliser for potatoes and onions, as well as an inter-row gas weed burner, which recently emerged from the workshop and is working well.

Much has been learned in the conventional side of the business, from going into organics – far more mechanical weeding is now done on the conventional crops than before the organic side was established, says Mike.

Looking ahead

Mike is aiming for a 25-35% rise in turnover over the next five years, with continued development of the organic enterprise and steady growth in the potato business.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

He will also further extend the potatoes and organic areas, taking on new land where it becomes available and fits with the plan.

If access to non-national seasonal labour becomes more difficult, he would like to employ more local labour but if this is not possible, further mechanisation is likely to result.

Judges liked

Planned and oversaw significant investment in crop storage

Increasing proportion of organically produced crops to satisfy customer demand

Very innovative, adapting existing farm machinery or investing in latest technology

Full financial control, strong financial acumen, good understanding of risk and markets

Benchmarks with other growers in group

What the judges say

"Mike's excellent attention to detail is shown throughout the business, from crop production to machinery maintenance. He demonstrates a strong sense of responsibility for staff welfare and their development."

Chris Singer, Carington Estates, Bledlow, Buckinghamshire

It's 50 miles between the blocks of land that Chris Singer manages with one set of kit and staff, with large towns to negotiate between farms.

He runs a complex, mixed farming business including a partnership, two sole traders and a company.

Chris began working for the Carington family in 2004 as a key worker in a tractor driver role. He was promoted to a manager role in 2007 and now oversees all day-to-day farm management, also advising his employers on future development.

The acreage under his management has grown from 223ha on one farm to 1,675ha in five main locations, including a 390ha farm in Lincolnshire.

Apart from the practical challenges, this brings plenty of paperwork too, with four BPS claims to complete.

Several successful Open Farm Sundays have been held and the farm hosts tours for the annual village day. Chris regularly takes tractors and other machinery to the local primary school and has also taken lambs to bottle feed at schools.

Farm facts

Complex set-up of four farming businesses

Combinable crops and 250 Mule ewes

Rotation – winter wheat, some second wheat, spring barley followed by break winter barley had maize too

Soil types range from thin chalk to heavy clay

Marketing

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Some crops are grown on contract for Budweiser, with malting premium achieved on every load. About 40% of the expected tonnage of crops is forward sold before **harvest** to help with cash flow and risk management, with 20% going into pools.

Markets are monitored weekly, with the rest of the crop sold through the year to even out cashflow and avoid market troughs.

Chris grows seed barley on contract and has also developed a more local market, growing maize and forage crops for a neighbouring 500-cow dairy, an arrangement that began in a small way four years ago. This helps with blackgrass control and means the farm has not needed to grow oilseed rape for some years.

A straw for muck agreement alongside this brings valuable solid manure onto the farm, improving fertility, reducing fertiliser spend and helping raise soil organic matter.

Four years after Chris joined the business, the existing soft fruit pyo and asparagus enterprises ceased. The 60 suckler cattle also went in 2013, replaced by 150 Mule ewes to graze steep grass banks on chalk land at the home farm in Bledlow.

Ewe numbers have since been expanded to 250 with lambs generally sold as stores in August because the chalk land cannot hold all the sheep in a dry summer.

Managing agents have been phased out since Chris's appointment. He runs the 1,285ha Buckinghamshire-based part of the businesses with just two full-time staff and one summer helper, involving them in day-to-day decisions.

His machinery policy runs tractors to between 4,000 and 5,000 hours - too far past that and the drop in residual value is too great.

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Technology and innovation

GPS kit is used to minimise input use and the drill tractor runs an RTK steering system.

Chris has also introduced digestate, which he says works like rocket fuel in spring on thin, chalky soils, making nutrients readily available.

Alongside routine maintenance, Chris and his team also adapt and fabricate machinery, building a large two-deck sheep transporting box, a grass seed drill and gun bus trailers.

He marks his biggest achievement as the turnaround of run-down tenanted farms as they come back in **hand**, increasing productivity and incorporating them into the in-**hand** farming business.

Chris entered all the farms in ELS originally and now has two CSS agreements running. A third has just been signed, which will see 344ha put into the mid-tier scheme.

Looking ahead

Farming profitably without the need for large subsidies is the aim, at the same time reducing reliance on chemistry, says Chris.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

To do this he will monitor by field and by enterprise for yield and profitability, making decisions accordingly. Cropping plans are likely to include cover crops, fallow and possibly multi-variety fields, he says, with the best use made of the farm's natural resources as more land is taken back in **hand**.

The judges liked

Managed rapid expansion across wide area, amalgamating existing units to fully use resources

Involves staff in major decisions

Extends rotation by working with neighbours to grow different crops

Use of organic manures to build soil fertility

Forward vision and willingness to adapt to change

What the judges say

"Chris successfully manages a very challenging business spread over a large area. He has overseen rapid and frequent expansion but also makes the time to engage with the next generation, regularly giving talks to local schools."

Sponsor's mess

"Farm managers are in positions of significant responsibility. They must have the technical knowledge to run an efficient, productive operation but also the foresight and ability to drive a programme of continual improvement."

Adrian Gough, Corteva Agriscience

JOURNAL : Farmers Weekly

What does it take to be the best at running multiple enterprises that are profitable and complementary?

Our three finalists each think they have the answer, tackling challenges in their area in exciting and forward-thinking ways.

The 2018 Farmers Weekly Mixed Farmer finalists and judges

The finalists:

Grosvenor Farms, Aldford, Cheshire

Matthew Brownlee, Loughgall, Armagh

David Bell, Fairfield Farm, Colinsburgh, Fife

The judges:

Robert Neill, last year's winner

Andrew Meredith, Farmers Weekly deputy business editor

Matthew Curry, independent judge

See also: Meet the 2018 Farmers Weekly Awards finalists

Grosvenor Farms, Aldford, Cheshire

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Running a 2,330ha dairy and arable farm means the challenges come thick and fast for managing director Mark Roach, dairy manager David Craven and arable manager Charlie Steer at Grosvenor Farms.

The low-lying estate, split in two by the River Dee, began transitioning to its current structure in 2012, when the decision was taken to bring together seven separate dairy herds into one operation.

Farm facts

In the Duke of Westminster's family since the 16th century

Welcomed 2,000 visitors in the past 12 months for farm tours

Two-person workshop team oversees machinery maintenance and fabrication tasks

Cattle divided between three holdings – lactating cows, dry cows, and youngstock

All-year-round calving sees an average of five cows calve each day

Around the same time, it was decided to modify a higher-risk potato-led arable rotation, which was running out of clean ground, into a longer one growing more cereals, rapeseed and maize.

Shape of the business

Cows started being milked in the 50-point rotary parlour in 2014, but construction of sheds and infrastructure continues today, with the goal to grow the 1,750-cow milking herd to 2,500.

There are two simple objectives which underpin the whole business, the first being cow luxury and the second slurry management.

The thrice-daily milked cows are bedded on a sand-based cubicle system with their high water intake satisfied by easily-cleaned drinking tanks kept shallow to ensure maximum freshness.

Open-sided buildings with steep, open-peaked roofs keep air flowing and, despite having the benefit of a flat building site, a slight gradient was added to the floor to reduce lameness by keeping surfaces dry.

The arable operation satisfies the slurry management objective and produces much of the forage required, but it is a profitable enterprise in its own right.

Costs are reduced by mechanically separating the slurry back into sand, dirty water and manure, with the water distributed across the farm via a network of underground former irrigation pipes. Last year 90% of the maize received no artificial fertiliser.

Mr Steer said more than half of the land supported a conventional arable rotation of wheat, spring cereals and oilseed rape, with margins further improved by a focus on premium contracts.

He said 30% of the first wheat area was grown for milling, with the 10-year yield average standing at 9.5t/ha and hagberg levels peaking at 340.

Challenges being tackled

Despite being a significantly sized arable enterprise, the farm's average field size is still only a modest 5.5ha, which means about 20% of the cropping area is headland.

Mr Steer said this had encouraged a strategy of reducing tillage, which had to be balanced against the need to retain cultural controls such as ploughing to assist with grassweed control.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

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Bad blackgrass fields have been targeted by repeat cropping with winter barley for forage, which has reduced seeds in the soil profile by ensiling the crop before the plants mature.

On the dairy front, tackling Johne's disease has proved a significant headache, with the farm having implemented a strict snatch calving regime and culling high-risk individuals.

Further losses have been incurred by the closed herd after it recently suffered its first TB outbreak, and measures to keep badgers away from feedstocks have been improved.

What do they do best?

The business has limited the difficulty of finding the right staff by having an outstanding retention rate of 15-20 years for full-time workers.

New workers can progress through a four-tier pay system, which starts at the voluntary living wage, by learning new skills, and all staff have the opportunity of accommodation in estate housing.

Nevertheless, with 50% of the staff coming from elsewhere in the EU, the managers rank poorer access to labour as the second biggest threat to the business after milk price volatility.

The judges liked:

Clear and measurable objectives

Strong awareness of costs and willingness to benchmark data against other industry leading peers

Extremely high animal welfare incorporating learnings from around the world

What the judges say:

"A whole systems approach with state-of-the-art slurry management supporting significant cost savings in the arable enterprise mark Grosvenor Farms out as a mixed farm of the highest calibre."

Matthew Brownlee, Loughgall, Armagh

Driving the narrow council roads that divide the 141ha that Matthew Brownlee manages in partnership with his family, there is little sign of the technologically advanced business that is set in the rolling green countryside, but a visit soon reveals the truth.

Four efficient, cash-generating enterprises are spread across the relatively modest area, with two – robot-milked dairy cows and pig finishing – added since he returned from studying Agricultural Technology at Queen's University Belfast.

Another, cattle finishing, has been scaled up to allow year-round sales by adding bought-in calves to compliment those produced by the suckler herd, with the traditional County Armagh industry of apple-growing completing the set.

Shape of the business

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Identifying an improvement in cashflow as one of the key objectives needed for growth and securing access to finance, each of the enterprises has been carefully managed to bring regular income into the business.

With the infrastructure already in place for cattle finishing thanks to a suckler herd of Limousin x Angus cattle, buying in calves to bulk up numbers was a low-risk early strategy.

Farm facts

Minimal machinery policy built on idea that if the animals are done right then other people can be paid to do the tractor work

Three cuts of silage per year plus round bales taken off any paddocks where grass has run ahead of cattle

Cattle are mostly bedded on woodchip

The operation now sells 650 finished cattle a year, with the objective being to sell on a weekly basis.

Selling into Dunbia's nearby Dungannon plant also provided the opportunity to be a part of the **Co-op's** "Truly Irresistible" beef producer group, which has earned a premium by switching to a Hereford bull.

With the all-grassland farm fully stocked, future growth could only come from indoor enterprises – and the pig finishing enterprise was therefore next on the agenda, with the first shed completed in 2015 and another completed recently.

The operation works with JMW Farms, which supplies pigs at about 40kg and all inputs apart from the shed, water, electricity and labour, taking animals through to finishing.

Mr Brownlee says he is paid a flat rate for each kilo added, regardless of market price, describing the system as providing as close to financial certainty as is possible in farming.

Challenges being tackled

Dairy cows arrived on the farm earlier this year, with the robot milker up and running just as the snow fell in February.

The new enterprise is offering a steep learning curve, as Mr Brownlee freely admits to having only limited dairy experience previously.

He credits the Lely robot, installed at a cost of some £130,000, with being useful not only at milking, but also for heat detection and reducing antibiotic use as it can pick up udder health issues before clinical signs are apparent.

It can cope with some 2,000kg of milk a day, and Mr Brownlee said he aimed to run it as near to capacity as possible year-round, with his entire 43-cow herd on the system at the moment and more freshly calved cows added as the earlier arrivals dry off.

Elsewhere on the farm he is improving his grass utilisation to make sure cattle grass at the right growth stage to maximise performance.

He is also looking to streamline handling by replacing more of the data he is currently recording on paper with electronic recording.

What do they do best?

Mr Brownlee has proven that the limited access to land in Northern Ireland is no barrier to increasing turnover and profitability.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

By being willing to put together credible financial plans in order to access the significant finance necessary to add new enterprises, he has shown that a can-do attitude and a head for figures, as well as a supportive family, can bring about real change in a surprisingly short amount of time.

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The judges liked:

Honesty about strengths and weaknesses

Incredible output per hectare

Desire to learn

Clear long-term business strategy

What the judges say:

“Matthew is a passionate ambassador for farming who will take the industry forward. His focus on enterprises that aren’t reliant on subsidy means he is well placed for a potential hard Brexit.”

David Bell, Fairfield Farm, Colinsburgh, Fife

Blowing sand may not be a problem uppermost in the minds of many Scottish farmers, but keeping soil in fields is certainly uppermost in the mind of beef and arable farmer David Bell.

He farms more than 1200ha around the village of Colinsburgh in Fife, with some of the lightest land in Scotland running from the north bank of the Firth of Forth up to heavier land some 600 feet above sea level.

Working in partnership with his family and with a workforce of six staff, this technically challenging mix of owned, rented and contract farmed land turns out premium-earning produce ranging from Aberdeen Angus beef to salad potatoes and malting barley for Scotch whisky and lager.

Shape of the business

The 400-strong herd of suckler cows is firmly integrated in the arable rotation by grazing short-term grass leys, with costs kept as low as possible by outwintering and calving many outdoors.

The closed herd is moving closer to pure bloodlines after a policy of retaining Aberdeen Angus-sired heifers from the formerly Simmental-cross dams and returning them to top quality Angus bulls.

Weaned youngstock get a second summer at grass before being housed for finishing on barley silage with a protein additive, with a goal of slaughtering at 24 months.

While lighter land is an asset for many beef businesses as it lowers input costs and reduces labour requirements, Mr Bell says the land would actively suffer in the absence of livestock as the manure binds the light sand and feeds the nutrient-hungry soil.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Greener patches are clearly visible in following barley crops where there have been urine patches, and a light coating of farmyard manure is often used to bind soil following crop establishment.

Farm facts

Focus on improving headlands to drive yield has seen switch to liquid fertiliser to get nutrition right to the edge of fields without polluting hedgerows

Nutrient mapping has been deployed to allow variable rate applications of lime, phosphate and potash

Crops are forward marketed where possible to reduce risk and improve income

The 710ha of land in arable rotation includes 50ha of salad and prepacked ware potatoes destined for supermarket shelves.

While labour intensive, this helps to spread workloads.

Salad potatoes start being **harvested** around the **end** of July along with early maincrop varieties, before the focus turns to **harvesting** the 540ha of cereals, beginning with winter barley and then moving into winter wheat and spring malting barley.

Challenges being tackled

The wide variety of soil types across the cropping area has also been turned from a challenge to a positive by enabling autumn and spring cultivations to take place over a wider window.

This has been further increased by a machinery policy of keeping tractor size down and running them on the maximum size tyre possible to keep compaction to a minimum.

Potato headlands, which get a hammering from regular machinery traffic and cause lower yields in following cereal crops, are also being planted with clover mixes which reduce the impact of wheelings and reduce the need for inputs by increasing available nitrogen.

What do they do best?

A continual drive for self-improvement is enabling Mr Bell to unlock benefits for his business, with BASIS and FACTS qualifications allowing him to better hold suppliers to account.

Similarly, by allowing Adas to hold on-farm trials, sitting on a number of AHDB committees, and being a member of his local NFU Scotland branch, he feels he is able to stay abreast of developments in on-farm best practice and agricultural policy.

Mr Bell is also a supporter of the Royal Scottish Agricultural Benevolent Institution, describing the time given up volunteering and helping with campaigns as giving back to the industry which has given him so much.

The judges liked:

Utilising challenging land to produce premium-yielding crops and cattle

Costs of production lowered and soils improved by out-wintering cattle

Real desire to learn and incorporate new farming practices

What the judges say:

"David has risen to the challenge of producing a healthy profit from a highly complex yet integrated business which blends multiple enterprises running across land with many different owners."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

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Sponsor's message

Bridgestone is delighted to sponsor the Mixed Farmer of the Year category.

We recognise the enormous challenge mixed farmers face in developing a broad range of technical skills.

The three finalists stand as excellent role models, demonstrating how a can-do attitude will reward those seeking to build resilience into their business.

JOURNAL : Farmers Weekly

The UTV is a Marmite subject. Most farmers have one, but actually don't enjoy owning or driving it.

They tend to be expensive to buy, loud to drive and can struggle with the harsh realities of daily farm toil.

In winter they are cold and – if you scrimp on the option of doors – leave drivers exposed to whatever the skies have to offer.

Try searching for a viable replacement for the UTV and the pickings are slim, unless you go for the even more open-air feel of a quad bike and trailer.

See also: Custom-built Zuki Ute is warmer ATV alternative

However, the Zuki Ute featured in the 15 December 2017 issue of Farmers Weekly showed a farmer-converted Suzuki Jimny, which attracted lots of interest from FW readers asking where to buy one.

So, when Paul Short, owner of TP4x4, got in touch, we were keen to find out what he was up to.

For him, the catalyst for his creation was being asked by a local fencing contractor to convert a Suzuki Jimny into a fence-post-carrying 4x4, capable of staying afloat in a soggy bog.

Mr Short has been involved in off-road car rallying for more than 30 years, so he knows a thing or two about adapting cars to fit his needs.

He has also designed, built and sold more than 2,500 Land Rover Discovery bumpers and accessories across the world.

Since the first Jimny rolled out of the doors he has received more enquiries, and in October 2017 full production kicked into life.

So far, 15 Jimnys have been converted into two-seat trucks with a UTV-sized rear load bed.

We visited TP4x4 to find out how they transform a small four-wheel drive into a go-anywhere, load-lugging vehicle.

Choose your colour

The early decisions are pretty simple. Buyers will need to choose how much lift they want the vehicle's suspension to have – either a 2in or 3in raise – and if they require flotation tyres, as this option needs boy-racer-style flared arches on the front.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The other choice early on is what colour the Terramaxx should be. Mr Short is happy to spray the trucks any colour the customer desires, with previous models having a camouflage vinyl wrap and a stealth paint job.

The firm converts both new- and old-model Jimnys running the 1.3-litre VVTI engine, and Mr Short likes to source the cars himself to have control over their condition and what should be avoided, although customer-owned projects are taken on, too.

“When you work with a vehicle, you get to know the good and bad points. The earlier Jimny models, from 1998 to 2005, have a manual lever to engage 4WD and a stronger transfer box,” says Mr Short.

“The newer models have dash-mounted buttons to select 4WD and a cleaner design. Spanish company Santana Motors built the convertibles and the engines were the older single-cam variants, which aren’t as good”.

The build

Stage 1 – Stripped back

Once an order is placed and a vehicle sourced, the team set about chopping the rear **end** off and removing the two back seats to convert the Jimny into a two-seater and make space for a load bed.

This involves using the original horizontal roof brace and uprights that surround the rear door and remounting them behind the two front seats.

This way the shape of the Jimny is maintained by using original parts, without costly fabrication of new bits.

A strengthened twin-layer steel bulkhead is welded in behind the front seats, with a full-width window that is heated as standard.

Steel is used rather than fibreglass for extra strength, which in turn allows the seat belt and body mounts to be beefed up to MOT standards.

All the glass is then removed, corners smoothed and the cab shell, along with the bonnet and wings, are sent away to a local paint shop for a final sand and spray.

The remaining body is then attached to a two-post car ramp and stripped back to the bare chassis, with axles, exhaust, engine and transfer box being removed.

Stage 2 – Full service

The naked Jimny’s frame is sanded and any repairs carried out before a layer of anti-corrosive coating is applied to protect the metalwork from rust or corrosion.

This also puts a solid barrier in the way for any rocks or debris that may come into contact with it.

The axles are stripped back with new bearings, king pins and seals fitted on all corners, while the brakes are also treated to new pads and discs all round, with any worn or broken parts replaced.

Not all Jimnys left the factory with all-round disc brakes, so TP4x4 offers a conversion kit to have a set of shiny discs. Although the team don’t touch an engine rebuild project, it is given a spruce-up, too.

“The engine has a full service and clean, dropping out all fluids and resiting a few parts, such as centrally mounting the intercooler from its original position under the front light on the diesel models, so our custom-made bumper fits,” says Mr Short.

“The engine bay has a clean-up and a lick of paint, along with a new radiator, battery, a new exhaust front to back and even new wiper blades.”

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

While the cab is off, the transfer box is removed and given a check over for any engineering gremlins and instead of refitting it on the brittle aluminium mounts, some replica steel ones slot straight into the existing holes.

Electrics

Along with spray painting, wiring is the only other outsourced job, which is completed by a local auto electrician.

This begins when the chassis is bare and all unwanted wires are removed and the majority are rerouted to better positions.

The old rear lights wiring used to sit on the outside of the chassis, held on by little clips.

Mr Short reroutes these wires through the centre of the chassis to keep them clean and protected from damage.

The rear LED lights and number plate marker are on a pre-made board, which attaches to the Terramaxx with a waterproof plug providing the power.

At this stage, if the customer wants some spotlights on the front or a control switch in the cab for a slug pelleter on the back, the wires are installed to make mounting the equipment later much easier.

Stage 3 – Rebuild

When the cab is bottled back on, the job of screwing it all back together begins and every nut and bolt that was undone is replaced with a new one.

After the engine and gearbox have been fitted, the refurbished axles are bolted on along with a castor arm correction kit to rotate the axle back into its original position (if the Jimny has had a 3in lift) using the same mounting holes.

“For the suspension, we use heavy-duty adjustable Panard rods,” explains Mr Short.

“Pro-comp shocks beef up the suspension, along with some equally hefty Pro-comp black springs, which are overengineered and rated to 400kg capacity.”

Each wheel arch is given the anti-corrosion paint job before the laser-made powder-coated rims and tyres, along with an in-house-built front bumper, complete the running gear rebuild.

Inside the cab, the metal area is treated to some professionally upholstered black soundproofing, similar to a camper van, which not only keeps the occupants warm but also has a classier feel than bare metal or cheap plastic.

Rear load bed

There are many options for the rear load bed and it's up to the customer to spec it to their needs. As standard is a UTV-style back, with a drop-down rear and cushioning on the locking pins.

Inside, all the beds are covered in anti-corrosion paint to keep them free of dents and scratches.

A tipping unit is available, as is the option to have greedy boards to pack more gear in.

However, Mr Short reckons payloads are about the 400kg mark.

Four lashing points are standard but, as the build takes place in-house, any special mounting points or external hooks can be added.

There's also the option of an aluminium hood to keep the dog dry.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

If pure off-roading is the destination for the Terramaxx, extras fitted in the past include a winch, beefier transfer box and air-locking 4x4.

Diesel option

Farmers will undoubtedly be slightly put off by the fact they have to fill the tank with petrol from the local garage rather than using a drop of cherry from the tank on the farm.

Mr Short is keen to solve this conundrum and imports diesel Jimnys from France, although the imported cost bumps up the final purchase price and takes it above an equivalent UTV.

There is also the small issue of driving a left-hooker in the UK, which not everyone is comfortable with.

Another option is to build a right-**hand**-drive diesel Jimny, getting rid of the standard 1.3-litre petrol and fitting a diesel block instead.

Mr Short plans to fasten a 1.5-litre diesel engine from a French manufacturer into one of his next vehicles, and at the time of our visit he was adapting a flywheel and clutch pack to marry the Jimny's current running gear to the new engine.

If this emerges successfully, it will undoubtedly be the most popular farm-ready version, while there's also a six-wheel-drive model planned for its maiden outing at the Great Yorkshire Show in July, which is bound to get some interest from passers-by.

Pricing and DVLA

There are four options of Terramaxx, with varying degrees of engineering complexity. Option one starts at about £7,995, which is a basic service, tyres, bumper and pickup conversion.

For a base price of £13,950, option four has all the bells and whistles, with a 3in lift and very little remaining from the original Jimny.

There are also two mid-spec options, but Mr Short is happy to fill whatever requests he gets, within reason.

However, the caveat for both of these prices is how much the original vehicle costs. Any imported vehicle will command a premium, as will a right-**hand**-drive diesel conversion, or a modern petrol model with low mileage.

As a parting gift, Mr Short offers to register the vehicle modifications with the DVLA, such as alterations from a four- to a two-seater truck and colour changes. This is then logged on the V5 along with agricultural registration, if the customer requires.

He is also in talks with the NFU about recognising the Jimny for its new worth rather than what its previous number plate would indicate.

JOURNAL : Farmers Weekly

Warwickshire farmer and agricultural contractor Chris Gardner usually drives a Fendt tractor for customers across the Midlands and beyond, but for 75 days each year he has another job – a technician and driver assistant for a top motor-racing team.

Strange though it may seem, he got into the world of racing after getting his HGV licence in 2003.

He was doing general haulage at the time, until a team his father was working for as a timekeeper was looking for a driver to take their race truck to European circuits – and Chris bagged the job.

See also: Farm-spec Suzuki Jimny challenges UTV domination

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Before long he was headhunted by a competitor, working his way through numerous roles and teams until the 2008 global financial crisis bit, forcing motorsport teams to dive on to the brakes and cut back.

This, at least, presented Chris with an opportunity to return home to focus on farming. Five years later his phone rang.

Rebel call

“A chap I worked for previously phoned up out of the blue and said: ‘We’re racing in Japan would you like to come out?’

“I said, ‘I can’t – but yes,’ and joined them just for the one race where they asked me to stay on. I’ve been with them ever since.”

His team is Rebellion Racing – a successful independent racing team from Switzerland and sister company of high-end watch manufacturer Rebellion Timepieces.

Chris has worked for them for more than five years.

Rebellion bills itself as the only team to have contested the domination of the factory teams from Audi, Porsche, Toyota and Peugeot in the past four years in the World Endurance Championship.

This weekend (16-17 June) they are gunning for a place on the podium at the famous 24-hour race at Le Mans in north-west France.

See also: Young agricultural engineer calls time on gender stereotypes

The team has two cars entered in the LMP1 class at the Circuit de la Sarthe. The cars pair a French Oreca chassis with a British-built Gibson Technology V8 engine.

Life or death

Although he still drives lorries when needed, Chris’ main job at the circuit is garage technician and driver assistant for the team’s number one car.

He downplays his role – but it is a vital job in a sport where a simple mistake can be the difference between winning and losing – or even life and death.

“It basically means making sure everything is working – and everyone has what they need when they need it.

“It’s everything from emptying bins to making sure everything is clean and tidy – the sort of jobs that aren’t very exciting but need doing.”

In a nutshell: 24 Hours of Le Mans

Location Le Mans, France

First run 1923

Duration 24 hours

Circuit length 8-and-a-half miles

Top speed 205mph

Distance More than 3,100 miles over 24 hours

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Famous drivers Jacky Ickx, Derek Bell, Graham Hill

Out on the track, it is a different matter. Chris is responsible for swapping two removable data-logging memory sticks – which monitor vehicle performance – every time the car makes a pit-stop.

His second job is to ensure driver changes happen seamlessly and safely. There are three drivers on Chris' car: Swiss racer Neel Jani, Germany's Andre Lotterer and Bruno Senna – nephew of the legendary Formula One world champion Ayrton Senna.

See also: Video: 6 simple exercises to keep you fit on the farm

Each take turns at the wheel throughout the 24-hours endurance event – ensuring the car spends the maximum time pounding around the track.

"It is up to me to make sure the driver gets out, the new driver gets in and their harnesses are tight. The confined cockpit and the vehicle crash structure mean it is difficult for the drivers to do their own belts. It's up to me to make sure their belts are tight and properly locked in."

Locked and loaded

All this is done under the intense pressure of race conditions and to make things a little more complicated, the memory sticks are on the opposite side of the car to the harness.

"Everything has to be done as quickly as possible. I have to lean into the cockpit and over the driver to get to the belt."

A couple of seconds lost in the pit-stop is no different to a couple of seconds lost on track – so pit-stop performance can win or lose the race.

"The top drivers know that and want to get everything right," says Chris. "They want to make sure they are in and comfortable as much as they can."

Practice involves the drivers repeatedly getting in and out of the car during a test week in the run-up to the Le Mans race weekend.

"We do everything again and again and try different methods so we speed everything up until we have perfected a routine."

See also: Farmer-turned-triathlete sets sights on world championships

The race starts on Saturday 16 June and stretches through the night. By the end on the following afternoon, Chris and the team will know if all their hard work has paid off.

Then it's back to the farm – for a while at least. "It's a different world – but farming has its moments too," he says.

Lessons from life in the fast lane

At first glance, farming and motorsport couldn't be more different. But Chris says his farm business has benefited from lessons learned from motor-racing.

Cable ties "Tie-wraps are everywhere in racing," he says. "They are an easy, quick and effective way of tying things up sensibly. I always keep a selection of different sizes in the cab."

Keep it clean "You see a lot of stuff in farming that is dirty from week to week. When you clean something you often spot something you would otherwise miss."

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Presentation "Motor-racing sponsors want everything to look right. I take a similar attitude to our tractors. They are our adverts – clean tractors attract more business."

Maintenance "When a machine has done a lot of work, we strip it down and rebuild it, just like they do in motor-racing. It prevents breakdowns."

Replacement parts "We always use new parts – it is more cost-effective in the long run than re-using an old part or something that is part worn."

Logistics "Whether you're moving cars or machinery, you need to minimise vehicle movements. And everything must be in the right place at the right time."

Monitoring: "We measure everything – data is useful. It helps improve performance and efficiency – including fuel use – in motor-racing and in farming."

Le Mans winner 'powered by tractor engine'

Farming's connections with Le Mans stretch back to 1962, when a Morgan sports car won its class at the race.

This car was powered by a petrol engine derived and developed from the same power unit originally used by Standard Triumph in the Ferguson tractor.

In its standard guise, the Triumph TR3 engine developed 92bhp. It was converted into racing mode thanks to a complete strip down, with the crank rods, pistons, flywheel, and crank pulley rebalanced and the cylinder head reworked to develop 134bhp.

The Morgan – known as TOK258 from its registration plate – was driven across the finish line by Richard Shepherd-Barron, who lives near Woodbridge in Suffolk.

"The basic cylinder block was the same as the Ferguson," says Richard. "If you stood them side by side, you would see it was the same."

JOURNAL : Farmers Weekly

Britain's food and farming sector is in danger of becoming a "bargaining chip" to be traded away in Brexit negotiations, a Labour MP has warned.

Former shadow environment secretary Kerry McCarthy told parliament's magazine The House that post-Brexit trade agreements could pose the biggest peacetime threat to the UK's food security.

Despite Defra secretary Michael Gove and farm minister George Eustice insisting there will be no lowering of food standards, Ms McCarthy said they were unable to promise a clause in future deals that could deliver on their assurances.

See also: UK to seek 'high levels of market access' post-Brexit

She said the US commerce secretary had made it clear that any post-Brexit UK-US trade deal would hinge on the UK ditching its EU-derived higher food safety laws, which prohibit the import of chlorinated chicken and hormone-pumped beef.

"The International Trade Committee has warned of the risk of an 'agriculture for services' trade-off in a future UK-US trade deal," Ms McCarthy said.

"There is a real danger of food and farming becoming a bargaining chip to be traded away in negotiations, especially when protecting the UK's large services sector is likely to be a priority."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

She also called for the UK to fight to stay in the customs union to ensure the policies chosen to replace the Common Agricultural Policy and the Common Fisheries Policy are not "fatally undermined".

JOURNAL : Farmers Weekly

Welcome to Farming Forebears, our regular feature where we delve into the rich history of British farming.

Thanks to all of our brilliant readers for sharing their amazing farm photos from days gone by. Please keep them coming in as we love seeing them, although we can't always publish them all.

This time we've got a fascinating selection of photos from the 1920s to the 1960s.

See also: Machinery Milestones: Land Rover celebrates it's 70th birthday

Shearing gang

Tim Matthewson shared this shearing photo taken in the 1930s at South Middleton near Wooler in Northumberland.

The farm was owned by James Deuchar, hence the JD initials on the busting iron held by B Robson in the front row.

"I'm a descendent of Bob Matthewson and am the fourth generation of Matthewsons to work on South Middleton, which is now owned by Lilburn Estates," says Tim.

Drilling teamwork

Here's a shot of Joan and Jack Rowlatt drilling spring barley near Upton-upon-Severn, Worcestershire in 1937. They were tenants at Hill End Farm until, nine years later, they bought Blacklaines Farm, Birdlip on the Cotswolds.

"In 1955 they moved to Mount Pleasant Farm, Broadway. They both enjoyed hard-working, happy farming lives," says their son John Rowlatt.

All smiles

This happy photo was taken around 1950 at Wear Farm, Bishopsteignton in Devon next to the mangel clamp. It shows the mother of Trevor Davey, Marion (far right) at the age of 12 or 13.

The boy sat on the horse is Trevor's uncle, Patrick Coaker, who still farms today at Widecombe-in-the-Moor in Devon.

"The lady second from the right is my grandmother Elsie Coaker and the little girl stood in front of her is my auntie, Anna Jones. The chap with the reins in his hand was a farmworker called Oliver Brewer," says Trevor.

Case collaboration

Here's John and Robert Laybourn harvesting wheat in the early 1960s at Elmsall Lodge Farm, Badsworth in West Yorkshire.

The machines in this photo are an International B64 combine being pulled by an IH B275. In the background another International B275 is loading sacks onto a trailer pulled by a Fordson E27N.

The farm is still running Case IH tractors and combines today, says Robert.

Family pride

Brindley Hosken shared this photo of his grandfather Willie Hosken (left), along with his sister Mossie (second left) and two of his brothers, Dennis and Vallie. It was taken at Clowance Barton Farm, Praze in Cornwall in the 1930s.

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"My grandpa moved to Boundis Farm at Mabe to farm in his own right after this, before buying Withan Farm in 1953. This is where I now farm," says Brindley. "My grandfather died in 1982, but he still has seven grandsons farming in west Cornwall."

Threshing throwback

David Watson sent this photo of his grandfather Daniel Kirkland's threshing outfit, threshing at Garrockhill Farm in Ayrshire in the late 1920s.

"The price was six shillings and sixpence per hour and farmers had to supply coal and water," says David.

Old shoes

Heather Middleton shared this snap of her grandfather Isaac Horner (right) shoeing an ox in the village of Hackforth in north Yorkshire.

Wartime farming

This photo sent in by Frank Dumbleton shows horses working in a field on the slope of Hagbourne Hill in Chilton, Oxfordshire in the early 1940s.

"The horses belonged to WJ Harris who farmed at Chilton Farm from 1888 until he died in 1943, after which the farm was sold," says Frank.

"I was told by WJ Harris's family that this photograph was used in Farmers Weekly in the early 1940s to show how agriculture was carrying on during the war.

"In the background of the photo is Harwell Airfield and you can see the aircraft in the dispersal areas on the right."

Grand opening

East Durham College has shared these photos to celebrate the 80th anniversary of its Houghall Campus.

These snaps show the first building stone being laid (above) and the agriculture minister of the day, William Morrison, at the campus' official opening in 1938.

How to share your photos

We'd like to see photos of your farming forebears – they could appear in the pages of Farmers Weekly.

All we need is a photo and a line or two (feel free to write more if you'd like to) about whoever is in the picture.

If you already have a digital image, email us a copy and if you have a print, you can either scan it or take a photo of it with your phone or camera and email it to us.

Don't worry if you're not an expert with a camera – snaps are fine. Email it to fwfarmlife@rbi.co.uk and your photo could appear in Farmers Weekly.

Tips on taking a handy snap

If you're taking a snap of a paper photograph, try to zoom in nice and close so you get lots of detail.

Check there isn't too much glare/reflection (no pics taken under the arc lamp in the yard, please).

Try to take pictures flat-on to the print (so the camera or phone lens is parallel to the paper rather than slanted upwards at an angle).

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JOURNAL : Farmers Weekly

Large parts of British farming are at risk if the UK forges a post-Brexit free-trade deal with the US, a new report from the Harvard Kennedy School of business and government in Massachusetts and King's College London has warned.

Co-written by former shadow chancellor Ed Balls, who is now affiliated to both institutions, the paper suggests the UK will be in a particularly weak bargaining position, given its relatively small size and inexperience – and agriculture is especially vulnerable.

See also: It's time Mr Gove recognised the true value of farming

The report finds that, despite the government's enthusiasm for a "quick win" post Brexit, the UK will have little to gain from a free-trade deal. It will have to concede more on tariff reductions, given that current UK tariffs – especially on food – are generally higher than US tariffs.

"Defra is filled with rabid free traders who will sell us aspects of a better deal that will hurt agriculture."

Senior board member at the Food Standards Agency

It also suggest the UK will have to go further than the 97.5% tariff reduction offered by the EU in the recent Transatlantic Trade and Investment Partnership (TTIP) negotiations, "given the smaller scale of opportunity the UK market offers".

US objectives

"For the US, removing or sharply reducing tariffs on agricultural products will be a key objective," says the report.

"However, while consumers would certainly see lower prices, opening the UK market to much cheaper US food, produced under what is perceived to be lower health and environmental standards, could destroy large parts of British farming and face intense consumer resistance."

The report quotes a senior board member at the Food Standards Agency as saying: "Those of us in agriculture feel vulnerable that we will be sacrificed in exchange for a better deal in services. Defra is filled with rabid free-traders who will sell us aspects of a better deal that will hurt agriculture."

US demands

Key "asks" from the US are likely to include relaxation of regulations on labelling, food safety and use of genetically modified organisms.

"Such demands will almost certainly spark strong public opposition in the UK, illustrated by the already intense concern about possible imports of chlorine-washed chicken," says the report.

It quotes a senior UK government official as saying: "Defra has made it clear they will not accept a deal which lowers food standards for the sake of a deal."

Another sticking point is that the UK has already indicated it will adhere to large swathes of EU regulation, to secure access to that market, and this will limit the scope for any free-trade deal with the US.

Affordable, not cheap

But sustainable farming group Sustain is concerned that other interests may come to the fore.

"The report is clear on risks all round and trade secretary Liam Fox is mistaken if he thinks British people want to trade away food standards," said Sustain's campaign co-ordinator, Vicki Hird.

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"We need affordable food, not 'cheap' food," she said. "Cheap, poor-quality, imported food will come at a cost – to the farmer or food producer, to animal welfare, to the environment or jobs in UK food and farming.

"Our UK farming industry has worked hard to clean up meat production and while more is needed, we don't want their farms and jobs put at risk by competition with cheap, poor-quality and lower-standard imports."

JOURNAL : Farmers Weekly

Time is running out to apply for a place on a farming and rural enterprise training course.

The deadline for applications to the John Edgar management development scheme, run by the Hampshire-based John Edgar Trust, is 1 June.

See also: John Edgar Trust: 40 years on and still going strong

The trust is dedicated to helping people achieve their potential in farming and rural enterprises throughout southern England and the course aims to develop individuals working in the rural sector into more effective leaders.

Applications are invited from people who are at an early stage in their career in agriculture or a rural business based in the South, the trust said.

Applicants should already be in a management position or at least show the potential to achieve this in the near future, the trust added.

After the deadline an interview round on 20 June will select 12 people for an award to participate in the course that will then run in early 2019.

Although the course is sponsored by the trust, participants will be asked to make a contribution of £500 towards the cost of their training.

However, bursaries are available at the discretion of the trustees for individuals who might be unable to pay this.

The course

The three-module residential course in rural business management will cover managing people, business practice, taxation and law, media management and leadership.

Course dates 2019

7-11 January five-day tutored course at the Royal Agricultural University, Cirencester

28-31 January four-day project-based case study module based at the RAU, Cirencester

25-28 February four-day project-based case study module based at a Hampshire Hotel

How to apply

Applications should be submitted by 1 June 2018.

The 2018-19 application form is available as a pdf.

JOURNAL : Farmers Weekly

Farming businesses are finding it increasingly difficult to recruit new staff, despite the total number of jobs in agriculture falling.

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The most recent figures released by Defra show the total agricultural labour force in the UK in 2017 was estimated at 419,000, down 2,000 from the previous year and half of what it was in 1973.

However, consultants and farm leaders are warning that competition for jobs is actually in decline, with fewer applicants for full-time roles such as herd managers as well as part-time roles like **harvest** staff.

See also: Contracts of employment - how to get the basics right

Factors include agriculture's ongoing inability to attract more would-be workers from outside the industry, the flow of good people heading into related food and agri-business roles, and the number of farmworkers now reaching retirement age.

Recruitment experts report that farmers are increasingly having to make compromises when it comes to selecting staff and it is taking longer to fill jobs than it used to. They are also having to offer increasingly generous packages to compete to secure the right calibre of candidate, which is driving up their cost base.

Ian Lindsay of recruitment business LKL Services said it has "never been harder" to find the skilled staff necessary to work on the UK's dairy farms and a good herdsman can have their pick of jobs.

"Even four or five years ago you could publish an advert and you would get about a dozen decent CVs. Now in some instances you are lucky to get one," he said. "You certainly don't have that choice."

"Generally most jobs are getting filled – but they are taking longer and farmers are facing compromises, such as accepting people with less experience than they want, outsourcing some of the skilled jobs or training them up."

Andrew Wraith, director in the food and farming department at Savills, said it was also getting increasingly difficult to recruit good people to work on arable farms, with an "underwhelming" number of quality applications coming forward.

This had implications for labour and machinery costs.

"When you are talking about controlling labour costs, then that is fine to a degree, but the issue is if you want someone good you have to pay what you have to pay."

Defra figures show the total compensation to agricultural employees in 2017 was £2.6bn, an increase of £80m on the previous year, which was mainly driven by the rise in the minimum wage.

Struggle for part-time staff

Helen Kenvin, human resources **co**-ordinator for Sentry, said it had been "a slog" to recruit **harvest** students this year and she had been told by one university that there were not enough students for the vacancies advertised.

"We definitely struggled this year – in fact, I have one manager who is still looking to fill a position."

Stuart Goodinson, managing director of De Lacy executive recruitment, said he was not convinced the problem was getting worse, but acknowledged the difficulty of finding staff because of the low volume of applicants.

The problem was particularly acute in places such as Scotland and Cornwall, as people were unwilling to relocate to those areas, he said.

There were also problems along the south coast, where staff were needed to run vegetable picking operations.

What can employers do to help themselves?

Recruitment specialists say being valued and allowed to progress in their roles is often more of an attraction to employees than the headline salary – although the salary will need to be competitive.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It's important to develop a reputation as a good employer – make time to sell your business as a great place to work and become known as an employer who is willing to invest in your people.

Don't be scared of people outgrowing your job if you do invest in them – you will reap the benefits while they are with you and they will be an advocate for your business if they leave.

Quality accommodation can be a draw for employees – although it depends on what the cost implications will be for the employee.

JOURNAL : Farmers Weekly

As ever, we have been snowed under with our readers' brilliant farming photos – we love seeing them, so please do keep them coming in.

This time we have picked a handful of excellent snaps that show the shifting of the seasons, from a bitter winter to something a little more like spring.

Your farm selfies are guaranteed to bring a smile to the face of even the most grumpy of farmers. This time we are sharing a selection from the thick of the lambing season.

See also: Video: Goat pilates bring smiles to farmer and fitness fans

The severely cold and wet weather has made lambing especially tough this year, but these snaps are certain to help lift your spirits.

Birthday surprise

Eveey Hunter sent in this brilliant photo of her and her cousins each reading a different copy of Farmers Weekly. They would like to wish their grandpa, Stewart Hunter, a very happy 80th birthday. Many happy returns from the FW team, Stewart.

Young lambers

This is Jamie Barron, aged 11, from Mintlaw near Peterhead in Aberdeenshire.

Proud young farmer Chloe Morgan with one of her Zwartble cross lambs in Herefordshire.

This little cutie is nine-month-old Jos Hutchinson, who is wearing his Easter bunny jumper while helping out on the farm.

Lisa Inman grabbed a lambing selfie with her daughters, Macey and Annabelle, on Strickland Hill Farm in Cumbria.

Natasha Smith sent in this cute lambing selfie.

Lambing lads Tom Modget and Charlie Albutt sent in this great farm selfie with their lamb, Gerald.

Here's little farmer Vera Minchin feeding her pet lamb, Bob, on her grandfather's farm in Carlow, Ireland.

Spring at last

The image of spring perfectly captured on camera by Tom Beeby in Rempstone, Nottinghamshire.

Atmospheric Alnwick

Ian Davison from Northumberland snapped this striking photo of sheep dodging snow and puddles on a cold and wet spring day, with Alnwick Castle in the distance.

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Chilly Longhorns

Ann Mentern took this photo of Longhorn cattle enduring the snow in Dorset earlier this spring.

Count 'em up

This is three-year-old Teddy busy counting sheep in his favourite JCB overalls. They're never too young to start helping on the farm.

Colourful lambs

Looks like somebody got a little bit carried away with the marker spray. Becky Breakspear sent this one in.

Doggie day care

James Bawden sent this photo in as proof that gundogs like Vinnie have their uses out of shooting season.

Bathtime reading

This is little farmer Jack Dennis reading his Farmers Weekly during bathtime. "His expression tells you that he has just seen a bargain John Deere 6215R in the classified section," says dad, William Dennis.

Send us your farming snapshots

Keep your farming photos coming in, we really can't get enough of them. It's really easy to submit yours – simply email fwfarmlife@rbi.co.uk or send them to us via direct message on the Farmers Weekly Facebook page.

Be sure to send your photos in as high resolution as possible – the higher the better for print quality. They can be cute, funny, romantic – pretty much anything goes (within reason).

Not only is there a chance that they will appear in the magazine and on our website in our regular Farmlife Framed feature, there's a chance they could be shared on our Facebook, Twitter and Instagram pages and go viral.

JOURNAL : Farmers Weekly

A father and son have been rescued after falling into a slurry pit in Northern Ireland.

The two men, aged in their 40s and 70s, got into difficulty on a farm in the Claudy area of County Derry on Saturday afternoon (16 June).

Emergency services attended the scene after the alarm was raised at about 3.45pm.

See also: 13 tips to avoid poisonous gas when mixing slurry

Both men were taken by air ambulance to Altnagelvin Hospital for treatment.

'Stable' condition

A hospital spokesman said both men were in a "stable" condition, but one was "more critical than the other".

Firefighters from Northern Ireland Fire and Rescue Service also attended.

The Health and Safety Executive has been informed of the incident.

Farm fatality

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The latest serious incident comes less than a week after a farmer was killed in a farm machinery accident in County Fermanagh.

Married father-of-four Gerry Collins, 45, died following the incident on family land in Moughley Road, close to Lisnakea, on Monday 11 June.

JOURNAL : Farmers Weekly

Warning: Graphic image of injured sheep

Police are reminding dog walkers of their responsibilities following a number of serious sheep worrying incidents in Fife.

Over the past month, four animals have suffered painful and unnecessary deaths in the area, resulting in three farmers being forced to end their own animals' lives.

Police Scotland released a graphic photo of one sheep that had half its face torn off following a horrific dog attack in the Cults area between Monday 30 April and Tuesday 1 May.

See also: Know the law on shooting dogs worrying sheep

One sheep was found dead and the other had to be put down due to the severity of injuries to its face and head.

On 8 April, in the Falklands area, two ewes and a lamb were attacked by a dog. The lamb suffered severe puncture wounds and a suspected broken back, and had to be put down.

A 35-year-old man has been charged in connection with allowing a dog to be dangerously out of control, and a report has been submitted to the Procurator Fiscal.

On 13 April, in the Glenraig area, a ewe was found seriously injured from a suspected dog attack and had to be put down.

@policescotland report charges made after spate of dog attacks in Fife - Falklands, Glenraig + Cults - saw 5 sheep killed by irresponsible dog ownership. Report livestock worrying to Police on 101, or anonymously to Crimestoppers on 0800 555 111. Dial 999 if crime in progress.

NFU Scotland (@NFUStweets) May 7, 2018

Officers are urging walkers to keep their dogs under control at all times when around livestock.

'Absolutely unacceptable'

Insp Jane Combe, of Cupar police station, said: "This is absolutely unacceptable and, as we head towards the better weather, we are taking this opportunity to remind all dog walkers and owners of their responsibilities.

"Dogs attacking, chasing and being in close proximity to sheep can all be considered livestock worrying. A dog nearby can cause sheep to panic and flee, resulting in serious injury or even death.

"All dogs are capable of chasing livestock and they do not understand the impact this can have. However, you do. Avoid fields with livestock when out walking and keep dogs on a short lead where this isn't possible."

MSP calls for mandatory leads on dogs around livestock

An MSP has appealed to dog owners to take greater care when walking their pets near livestock.

Kate Forbes, the MSP for Skye, Lochaber and Badenoch, said it was "nothing short of disgraceful" that there were still so many dog attacks on livestock each year.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Ms Forbes spoke out after it emerged that a Highland farmer lost 12 rare-breed sheep, worth more than £12,000, after they were savaged to death by an out-of-control dog.

"I find it staggering that we are still talking about dog worrying and dog attacks on livestock. Owners should know that dogs must be on the lead if passing near sheep," she said.

"Every year, there are additional warnings issued by the usual bodies and yet we see story after story about sheep being killed and maimed by dogs.

"The results are truly gruesome, particularly when sheep are pregnant or there are lambs.

"Apart from the wretched images of maimed sheep, with half their faces missing, a dog can also cause severe damage by just being in a field with sheep. In particular, it can cause sheep to abort lambs or to be separated from lambs."

JOURNAL : Farmers Weekly

Repeating a trial comparing the performance of terminal beef sires has shown estimated breeding values (EBVs) are highly reliable, with higher genetic merit progeny outperforming calves bred from bulls with lower terminal indices.

In 2016, when Harper Adams University first compared the performance of 2015-born progeny from two Simmental bulls – one within the top 1% of the breed and another within the top 10%.

It found calves from the bull with the higher index recorded carcass weights 12.7kg heavier when all calves were slaughtered at a similar age.

See also: Beef Focus Farm: How reducing waste is maximising beef margins

Researchers have since repeated the 2016 study using the same bulls in the same suckler herd to examine the reliability of EBVs.

The results of that trial at Ian Willison's Williamswood Farm in Nottinghamshire, published exclusively by Farmers Weekly, shows, once again, bull calves sired by the top 1% index bull recorded significantly higher daily carcass gains and slaughter and carcass weights.

Simon Marsh, principal beef lecturer at Harper Adams, who led both trials, says the results demonstrate EBVs are repeatable.

"The message here is have faith in EBVs with decent accuracy levels. They are reliable, highly repeatable and accurate."

The results

In this latest study, the higher carcass weights of the 2016-born bull calves from the top 1% index bull were 10.6kg heavier than progeny from the top 10% bull.

This was worth an extra £42 a head at a base carcass price of £3.50/kg, taking into account penalties for heavy weights.

Mr Marsh describes the performance of the calves from both Simmental bulls as "outstanding" with carcass weights of 371.9kg-382.5kg at just 380 days.

"This smashes the AHDB Beef & Lamb target for intensively finishing suckler bulls of a 350kg carcass at 14 months old," he says.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The bulls were finished at just over 12 months old.

"This almost produces a 'cycle of perfection' with the old calf being slaughtered when the new one is born," adds Mr Marsh.

This is the seventh study carried out by Harper Adams to compare the performance of progeny from bulls with different terminal indexes.

"All seven have shown that with bulls with reasonably high levels of accuracy, that EBVs work with significantly improved performance recorded from bulls with better figures," says Mr Marsh.

The bulls used in the trial were Dirnanean Bradley (terminal index +137 – top 1%) and Omorga Volvo (terminal index +93 – top 10%).

Results showed:

Volvo's calves recorded heavier birth weights than Bradley's and an improved calving ease, contrary to the EBVs of the sires

Volvo's calves also had higher daily liveweight gains (DLWGs) and 200-day weights contrary to Bradley's better EBVs for 200-day weights

However, post-weaning calves sired by Bradley overtook those of Volvo

Bradley sons finished two days quicker on average and recorded higher DLWGs from weaning to slaughter of 1.86kg compared with 1.70kg

This resulted in higher carcass weights for Bradley's calves – 10.6kg (382.5kg versus 371.9kg)

The calves sired by Bradley in the 2016 trial were leaner with a fat classification of 3= compared with 3+/4- for progeny from Volvo which mirrors the fat depth EBVs. Bradley has a fat depth EBV of -1.2mm compared with Volvo at 0.0 mm. Calves from Bradley in 2017 were again slightly leaner.

Calving characteristics and growth rates to 200 days (bull calves)

Sire

Bradley (top 1%)

Volvo (top 10%)

Gestation length (days)

285

287

Calving ease (1-6) 1 = unassisted, 6 = elective surgery (caesarean)

1.7

1.2 (2 assists in 19 cows)

Birthweight (kg)

45.5

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50.9

200-day weight (kg)

346

352

DLWG (kg)

1.50

1.50

Slaughter performance of Ian Willison's bull calves

Sire

Bradley (top 1%)

Volvo (top 10%)

Slaughter age (months)

12.5 (381)

12.4 (379)

Slaughter weight (kg)

671

652

DLWG wean to slaughter (kg)

1.86

1.70

DLWG from birth (kg)

1.65

1.59

Carcass weight (kg)

382.5

371.9

Carcass DG from birth (kg)

1.01

0.98

Conformation score (1-15)

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11.3 (U=)

10.8 (U=)

Fat class (1-15)

7.8 (3=)

8.1 (3=)

Carcass price (p/kg base at £3.50/kg)

3.65

3.64

Carcass value (£)

1,396

1,354

About Williamswood Farm

The 2016 and 2017 trials were hosted by Ian Willison who runs a suckler herd of 105 mostly Simmental cross British Blue cows.

Home-bred replacement heifers calve at 21-23 months old with the herd calving indoors from mid-late July.

Cows and their calves are turned out to grass as quickly as possible until mid-**end** October when they are housed. Bull calves are offered creep feed from four weeks old.

Cows are artificially inseminated in October and November and a sweeper bull then runs with the herd.

Nutrition

Bull calves are weaned when the cows are turned out in April and are intensively finished on good quality maize silage and blend total mixed ration (TMR) fed on a 40:60 ratio on a dry matter basis.

The blend is formulated from barley, beet pulp, biscuit meal, distillers, hipro soya, maize gluten, molasses and minerals with the TMR containing 54% DM, 12.4ME, 16.1% CP (in DM) and 28% starch (in DM).

The silage and blend intakes averaged 13.5kg (4.1kg DM) and 7.2kg (6.3kg DM) a head a day respectively.

Market

The bulls are slaughtered at Foyles at Melton Mowbray.

Heifer calves, which are not fed creep after Christmas, are turned out with their dam and weaned in June.

Thanks to the farm's high herd health status, surplus heifers not required for replacements are sold at a premium at 15-months-old for use as recipients in embryo transfer programmes.

Why use EBVs?

Mr Willison never selects a bull without considering EBVs. "They give us an insight into what a bull is likely to do for us, without recording or EBVs you are working blind.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"In the past we have selected bulls without EBVs or those with poor EBVs and it has never produced positive results."

Calving ability is the EBV he values the highest. "A dead calf is no good to anyone," he says.

"If you are looking for ease of calving it is no longer good enough to just select a particular breed, you have to look at individual animals within that breed."

JOURNAL : Farmers Weekly

My sister Lizzie is the undisputed queen of the daft gift. Within days of her hearing I was going to be out of action for a few weeks, a large parcel arrived bearing her distinctive handwriting.

At first glance, the contents seemed disappointingly mundane: a huge box of coloured pens, and a colouring-in book.

On further inspection, however, the book turned out to be page after page of obscenities and profanities – some of which I'd never heard of.

The lovely covering letter wished me a speedy recovery and hoped a couple of beautifully coloured-in "f***s" and "t**s" would help relieve the frustration of those occasional but inevitable bad days on the long road back to fitness.

See also: Read more of Charlie Flindt's columns

What Lizzie probably didn't realise is her present is perfectly timed, because June is prime colouring-in time.

It's time to start choosing next year's cropping, and that means breaking out a freshly photocopied, squeaky-clean farm map and colouring in it.

'A thousand Hampshire diamonds'

It's a nice red pen for the easy one – wheat – which of course follows the spring beans and the oilseed rape.

Beans (brown pen) and OSR (yellow) will once again be the break crops of choice for next year (following the assorted barleys), unless the field is one of our light ones, in which case I dig out the purple pen for peas... and then pause.

Peas. Every time I grow them, they promise so much. Waist-high in June, strong enough you feel you could lie full stretch on them and they'd still support you.

You're confident of a two-ton crop and some baled haulm the cattle go wild for.

And then the good Lord sends a wet iron through them just before harvest, and you spend a week of what should be wheat harvesting time trying to scrape them – without a thousand Hampshire diamonds – off the floor.

But then I remember the great pigeon decoying, and the fabulous wheat that comes the next year, and commit purple pen to paper.

Empty straw barns

And that leaves winter and spring barley to fill in the rest of the farm map in light blue and dark blue.

Most years it's a juggle between overdoing the spring workload and getting enough winter barley in to set up OSR the next year in full knowledge that winter barley rarely pays its way.

That's all changed this year, though. Winter barley is having a spectacular revival. Not long ago, we were selling it off the combine for £48/t, and chopping in the unwanted straw.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

How circumstances have changed. Demand for good old bog-standard feed barley remains high, and we all know about the nation's empty straw barns.

The dark blue winter barley pen can rampage its way across the map with a clear conscience.

Of course, the daft thing is even after all that majestic colouring in, even after the seed has been ordered and stockpiled at the back of the barn, and the dear old Horsch CO3 has gobbled up another couple of tubes of grease in eager anticipation, the whole cropping plan can change.

If the good Lord feels October, November and December would once again be the best time to top up the water table, there's diddly squat we can do about it – except get the colouring pens out, and another blank farm map, and start again.

I could also dig out Lizzie's Book of Obscenities, and carefully and therapeutically work my way through another couple of "d*****ds", "d*****gs" and a mysterious "g****ls". God knows what they are, but they'll make me feel better anyway.

JOURNAL : Farmers Weekly

Reasons why we love farming, number 56: continuity. Half a century ago, I got a new bicycle. It was a Raleigh, it was blue and silver, and I was pleased as punch with it.

I set up a simple loop round the farm buildings to enjoy its performance.

From the back door, I followed the track past the estate yard and workshop, complete with its creosote tank and massive sawbench, where Lord Sherborne's carpenters and workmen made doors, windows and fence posts for the houses and farms of his village.

See also: Read more of Charlie Flindt's columns

I flew past the brand-new block of garages, put up in the early sixties by His Lordship as a response to these new-fangled motorcars which his tenants were buying and parking untidily on the roadsides.

Unfortunately, each garage's dimensions were based on accommodating an Austin A40. Within a decade, they were useless.

Then it was round the left-hand bend, past the little cottage where the Debenhams lived; "Mrs Deb" was my mother's "help".

Her unwritten job description covered everything from cooking and cleaning to having me to stay when my parents went on holiday. Memories are clear of having a "bath" in her old-fashioned kitchen sink.

Jim-jams and crutches

Another left bend took me on to the public road – always a source of worry for my mother, but this was in the days before the National Trust arrived, before the M3 brought the Londoners down, and when sleepy little Hinton Ampner was all but unknown.

The road dropped downhill, I could pick up speed and sweep back into the farmyard – taking care not to lean over too much in the brand-new gravel that had just been laid – and start the loop again, and again, and again, as fast as possible.

Fifty years on, my pace is somewhat slower. I'm not on the bicycle, although I'm sure it could be found somewhere in one of the old barns and sheds if I looked hard enough.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I'm in my jim-jams and dressing gown, and on two crutches, pushing the new hip as hard as I dare. The route, however, is identical.

Past the old estate workshop, long silent; many years have passed since the howling three-phase planer could be heard finishing a window frame.

Then it's gently round the massive locked gates – unheard of and unneeded 50 years ago – past the now-demolished garages, and gingerly round the bend next to Mrs Deb's house.

Moral support often arrives from the modern-day residents, and from some of the hordes of National Trust visitors baffled to find a fat farmer in jim-jams hobbling along what is now part of the trust's round-the-estate walk.

Hinton Ampner Who's Who

The short stretch of public road is next; infinitely busier than it was in the days when a non-village car was enough to get everyone rushing to the windows, and an ear now has to be kept open for a trophy wife in an SUV (aka "twig in a box") hurtling nonsensically through the over-lush June lanes.

There's a short, steep and challenging climb up the drive, over crumbling tarmac, and into the farmyard again.

No danger of slipping in deep gravel anymore; the last of it was washed down Farm Hill ages ago. Another leisurely lap completed.

Dear old Mrs Deb would chuckle at the final link over the 50 years. Just before being discharged from hospital, a bubbly and utterly professional young nurse was discretely helping me with a fantastically welcome shower.

"You're from Hinton Ampner?" she asked. "Did you know Mrs Deb?" Of course, I replied. "Well, I'm her granddaughter." It was the kitchen sink all over again.

Now that's what I call continuity.

JOURNAL : Farmers Weekly

When I've perfected my time machine, I'll be loading it up with glyphosate haters, and travelling back to the mid-1980s.

We'll visit a heavy Hampshire field, where a Ford 7600 is struggling to tow a Bamlett CD4 through couch-infested clay.

The tightly spaced Suffolk coulter can barely manage half a furlong before the bow wave of rhizomes forces the long-suffering tractor driver to reach under the seat for the spool valve (no wonder his hips are knackered), jack the drill up and do a huge loop on the sown ground, hoping to shake off the sticky mess.

Perhaps we'll leap forward a few months to the early summer, and watch a 3m cultivator hard at work doing couch control on a fallow field.

See also: Read more of Charlie Flindt's columns

Every time it reaches the headland, the driver leaps out to clean the spring tines, and gather the sinewy lengths of couch in little heaps to be burned at a later date. If we were to hang around for a couple of weeks, the whole laborious process would be repeated.

All that diesel, all that compaction; would our glyphosate hater be shuddering at the concept of "cultural control"?

Now we'll twist the dial on the time machine's dashboard forward a couple of years, and watch the Allman mounted sprayer, with its state-of-the-art 30ft boom weaving its way across the field, applying paraquat.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Unsophisticated guidance system

The theory was to burn off the above-ground greenery, and eventually “exhaust” those pesky rhizomes. The practice was carnage in the fields, and in more than one farmhouse. Certainly not agriculture’s finest moment.

Along comes glyphosate. You’d think it would be the eco-warriors’ dream. No more damaging soil cultivation (although back in the 1980s, soil erosion wasn’t the bogeyman it is today). And glyphosate was safe.

One early product was labelled with a hare as some sort of tacit acknowledgement of paraquat’s disastrous legacy. “You could drink this,” assured Ernie, the farm’s first sprayer man, as I helped him load up the Allman for a bit of pre-harvest couch control.

We didn’t of course, but the harvest student and I had the dubious task of waving fertiliser bags on long sticks to guide Ernie from one end of the field to the other in those far-off pre-tramline days – so thank goodness it was safe. And it worked.

Except, it appears, glyphosate is no longer safe. It has become even more of a farm evil than the poor old humble plough, and no eco-activist’s rant is complete without hyperbolic hatred of glyphosate and its inventors and manufacturers.

Cue the eco-wailing

And their number one go-to piece of scientific evidence is a report by the World Health Organization’s (WHO) cancer agency – the International Agency for Research on Cancer (IARC) – issued in March 2015.

Their verdict? Glyphosate is Group 2a carcinogen, a substance that probably causes cancer in people. Let the eco-wailing commence.

But then Reuters managed to get a sneaky peek at early versions of the IARC’s report, and found that the early verdicts differed somewhat from the final.

In the original, noted Reuters, multiple scientists concluded their studies and had found “no link between glyphosate and cancer in laboratory animals.”

This and other equally significant bit of news somehow failed to make it to the WHO’s final publication. Google “WHO Reuters glyphosate” for the full, and frankly astonishing, story.

It’ll make you cross. It sure made me cross. If my farm is going to be forced to succumb to the eco-lobby’s infatuation with winding agriculture back in time to those horrible pre-glyphosate years, then I want to see straight, clear, honest evidence; not reports with inconvenient truths removed.

JOURNAL : Farmers Weekly

The “to do” list we put together at the beginning of May was so long that it was almost overwhelming. So much to get done before the hip operation, and, as the much-missed Time Team nearly said, we only had 16 days to do it.

It took a couple of days to stop running around in a circle (ah, that might explain the surgery) and sort out priorities. Eventually, we sorted out a top three.

At number three was the 40% of the farm that was still unsown after six very unco-operative months.

See also: Read more of Charlie Flindt’s columns

Eight tonnes of winter beans were formally informed that they would not be needed, and would have to sit and wait at the back of the barn until next autumn – or in a good second-hand grain trailer if I can find one for sensible money.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Extra spring bean seed was miraculously found, spring barley seed was boosted by another tonne, and contractors booked to help with sowing – but the days were ticking by.

Is May really a suitable time for sowing? We've done good spring beans in May, but spring barley? Who knows? There's always wholecrop silage if all else fails.

The Eurovision forecast

But there were other, more important jobs to do. There was a long list of Eurovision songs to be checked and a prediction to be made.

Luckily, 10 seconds spent watching the Israeli entry was enough to convince me that I needn't waste time watching any others.

I made my forecast very publicly in the Jolly Flowerpots to anyone who would listen, including the Cookham Turkey Magnet (at least, I think that's what they call him; sounds a bit like an odd version of Babe Magnet, but there we go), who had joined me and neighbour Robert for what he'd hoped would be an evening of fine beer and intellectual conversation. Well, he got one right.

Finally, there was the Single Farm Payment online form to fill in. This, of course, is the big one, and it takes a curious change of mindset to do properly.

What's a hedge?

You have to say a strict mental farewell to the world of grease guns, drill calibration and lamb castrations (ie, what our forefathers would recognise as "farming") and channel your energies into what an IT consultant/Defra wonk thinks "farming" is.

Thank goodness for the crucial booklet called How to check and change your hedge information, which included a full page entitled "What is the definition of a hedge?" We never knew. I could sense the farmhouse ghosts shaking their heads in bewilderment as I read that page.

A brief visit to the RPA's record of my farm showed that most of the hedges, despite all their formal definitions, weren't mapped.

Did I want to go through hours of sketching and sending in a pile of RLE1 forms? No. I managed to source my Ecological Focus Area thanks to the corners and edges that were now available after we gave up trying to get into the Keystone Cops Countryside Stewardship, topped up with some very popular wild bird strips, with just a soupcon of buffer strip to make up the numbers.

Phew. The form was electronically submitted without an RLE1. Then the sun blazed majestically, and 300 acres of crops were in and rolled in a week (don't mock – for us, that's a lot).

A heavy night of rain (the first welcome rain in 10 months) meant the barley was through in five days – a good start.

And, of course, Israel won Eurovision. I hope the Turkey Magnet took my tip and put a bob or two on them. He can buy the fine beer next time.

Charlie Flindt is a tenant of the National Trust, farming 380ha in Hampshire with his wife, Hazel.

JOURNAL : Farmers Weekly

When the mighty Minette rings you up and tells you to do something, by heck you do it – even if the message is delivered by an automated evening call that somehow bypasses the Telephone Preference Service.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Her instruction was clear: go and read Mr Gove's lengthy 64-page consultation document, "Health and Harmony: the future for food, farming and the environment in a Green Brexit" or, the "Shampoo Report" as it shall henceforth be known, thanks to its obsession with "health and harmony".

So I did, expecting little, and wasn't disappointed. The grubby fingerprints of the powerful agri-eco-lobbies could be seen all over each page as I scrolled all 64 of them down my screen.

See also: Read more of Charlie Flindt's columns

All their favourites (and unsolved contradictions) were there: soil is damaged, but somehow we farmers are still producing high quality food.

We must boost yields, while doing all we can to remove plant food from the atmosphere. The CAP is blamed for the decline in farmland birds, with no mention of the multitude of predators that have arrived in the past couple of decades.

Grammatically-challenged pages

And, somewhat inevitably, the ultimate country contradiction pops up again in the Shampoo Report: we must do more for countryside wildlife while encouraging more public access.

Free-range people and their free-range dogs are incompatible with thriving wildlife. Our farm has just had another spring without a single lapwing to be seen.

They were once numerous enough to feature in the briefing for those setting off with Cambridge rollers.

The different options for reduction in payments were interesting, although the multi-thousand acre estates will already have clever schemes in place to avoid qualifying as the top, most-penalised tier.

I raised an eyebrow at plans to phase direct support out altogether – tens of thousands of bureaucrats and civil servants rely on measuring and inspecting British agriculture. Are they really going to be out of a job?

I left the livestock bit to Hazel, whose lengthy submission involved a constructive plea for a return to local abattoirs – even a fleet of "travelling" ones.

Anything to avoid the hideous long haul to vast industrial units hundreds of miles away.

I suggested she mention the absurdity of claiming "world-class welfare standards" while allowing certain ghastly slaughter techniques, just to avoid upsetting the religious offend-atrons. She said she'd leave that to me.

Also missing from the Shampoo Report is any mention of food supply. The assumption is clear across all of its grammatically-challenged pages (it's "outside the EU", not "outside of the EU"): food supply will always be plentiful. Mother Nature is suggesting otherwise.

Even the AHDB is taking a break from its Brexit bashing to report on the distinct possibility that "the unusual run of grain surpluses" may be coming to an end.

Theme park Britain

And how: there's an awful lot of North American seeding kit still frozen in the barn. A long-overdue run of mediocre-to-poor harvests might reset the perspectives on the countryside's purpose.

So that's what I decided my reply to the Shampoo Report would be. It would have to be short and snappy, and to the point.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It would have to somehow get across to someone somewhere deep within the bowels of Defra house (who hasn't been relocated to the RPA to read 231,694 RLE1 forms) that full shelves aren't guaranteed.

I toyed with "Farmers make food. Food is plentiful. It won't always be so." But that seemed a bit long and over wordy.

Instead, on a carefully laid out A4 formal letter, I typed: "Theme park Britain won't feed Britain", and posted it. If that doesn't warrant a congratulatory call from the mighty Minette, nothing will.

Charlie Flindt is a tenant of the National Trust, farming 380ha in Hampshire with his wife, Hazel.

JOURNAL : Farmers Weekly

The orthopaedic surgeon leaned back in his plush leather chair. "So," he asked, putting fingertips to fingertips, "When did you finally decide to go ahead with this hip operation?"

I had to think about it for a moment or two. I'd abandoned the front row because of neck injuries, so it wasn't then.

I gave up wicket keeping, but still soldiered on without the gloves.

But then I found I couldn't even wield my mighty Newbery properly, and tried umpiring; but standing still for four or five hours started to hurt too. But still couldn't face surgery.

See also: Read more of Charlie Flindt's columns

For a couple of years I've sat in the tractor with what feels like an open knife in my right pocket. I had to change the habit of a farming lifetime and abandon the foot throttle: angling the right leg out was just too painful. Using the hand throttle was a whole new skill for me.

Last autumn, that imaginary single-blade knife turned into a Swiss army knife, with every razor, corkscrew, hoof pick and bottle opener jabbing relentlessly into my right hip.

Fred the flatcoat

A few months ago, the surgeon filled the hip with a scary mix of painkiller and cortisone; life did get easier, which confirmed that the hip was the problem.

You could tell the surgeon is of good Scottish farming stock; as he withdrew the huge needle from the deepest recesses of my groin, he casually remarked: "In an ideal world, we'd install a grease nipple on the outside of the hip."

But what was the moment that persuaded me to bite the bullet and agree to let him loose with his scalpel? The family was having a love-in with Fred the flatcoat, who, at twelve-and-a-half, has long since picked his last bird.

The back legs don't work terribly well, he's totally deaf, but being a flatcoat, he still considers life is fantastic – even when he has tumbled over into an undignified and helpless heap again. The tail still wags.

"If he were in as much pain as you are," said Hazel, "we'd have shot him." That was the moment. I was on the phone to make an appointment faster than you can say inflammatory arthritis.

Gory details

There was one more decision to be made: total hip replacement or "Birmingham resurfacing"? The differences are gory (but fascinating if you're into a bit of bone grinding), and probably best not discussed over breakfast.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The fancy "resurfacing" job is the better choice for a fat man who still reckons on shovelling a bit of the proverbial when he returns to work.

"Will I get back in the scrum?" I asked. A shake of the head. "Back behind the stumps?" Another shake. "Batting at number 5 for the White Hunter CC?" A welcome smile and an approving nod.

I drifted off as memories flooded back of striding boldly (and without pain) to the immaculately kept square of the Brockwood Oval, the very man to steady the ship with the White Hunter score at a traditional 9 for 3. A polite cough interrupted my daydreams. Well? "Right," I said. "Let's do it!"

And so it is, if all goes to plan, that while you're settling down with this week's Farmers Weekly, I will be enjoying day two of my new right hip.

I have no idea what to expect. I may be sprinting up and down the hospital corridors, rehearsing that quick single.

Or I may be moaning and whining, milking my helplessness for all it's worth. Although that will all have to stop when Hazel asks causally about the keys to the gun cabinet.

Charlie Flindt is a tenant of the National Trust, farming 380ha in Hampshire with his wife, Hazel.

JOURNAL : Farmers Weekly

Six weeks sitting in my £200 leather reclining chair from eBay feasting on 24-hours-a-day television has left me older and wiser. It's amazing, the stuff I've learned – often at 2am, while waiting for the painkillers to kick in.

For instance, did you know that every other suitcase arriving at Australian border control from south-east Asia is full of raw, bleeding meat?

And did you know that there are officially more comedy quiz shows than there are approved comedians? And that it is illegal for the Question Time panel to reflect the Brexit views of the nation?

See also: Read more of Charlie Flindt's columns

There was one truth that became apparent as my eyes got squarer and squarer during my convalescence – the chance of our farm being the subject of an hour-long special presented by the impossibly wholesome Kate Humble are zero.

There are three reasons for this. First, my face is not camera friendly at the best of times; put it next to the heart-achingly photogenic Ms Humble, and it would look even worse.

Niche or nothing

The second reason is that my farming is terribly dull. The non-farming TV viewer must think that every farmer is dedicating his acres to reviving a rare breed from the seventeenth century, and only using feed harvested by village virgins using the light of the second full moon of any month in a leap year. It's niche or nothing.

Here at Manor Farm we stick with what works. When it comes to livestock, Hazel's motto is: "They're not called rare breeds for nothing." On the arable side, we grow what the farm has always grown.

If William Cobbett were to ride through again, he'd recognise all the crops – with the sole exception of oilseed rape.

In that respect we're like the vast majority of British farmers: we get on with producing a selection of mundane arable crops with varying but reasonably consistent degrees of success year after year. Hardly the scenario to justify the arrival of a film crew.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The third reason is a bit more complicated. I can't bring myself – no matter how hard I try – to use the word "passion" when it comes to my farming.

Put someone from the Countryfile-approved farming world in front of a camera, and their eyes glaze over and the "passion" starts flying.

You would never believe how passionately passionate they are about their passion for showing just how much passion they have for farming with as much passion as they can passionately muster.

You see the word creeping into job adverts – “Do you have a passion for quick-fit metric hydraulic connections?” – and invitations to apply for tenancies, especially those offered by well-known land-owning charities.

Do I worry that I can't proclaim my farming "passion" to anyone who will listen? Not really. I find it slightly creepy, slightly "Stepford Farmer".

My ideal farming gathering involves a good moan, vast dollop of cynicism and a complete lack of bespoke embroidered gilets.

Ostentatious "passion"

“I hate pet lambs,” growls Hazel after another bruising session in the barn. The language I use after installing the de-awning plates in the NH TC5080 combine or unblocking the Horsch seed pipe can be fruity and medieval. But we both love what we do.

It's just that we don't have "passion" ostentatiously (if metaphorically) tattooed on our foreheads for all to see. So if the cameras do arrive at Manor Farm, the final result would be terribly dull, despite Ms Humble's best efforts.

The agricultural adventures of two cynical fifty-something farmers would hardly be Bafta material. Mind you, it would be perfect for the 2am insomniacs, waiting for the soothing touch of paracetamol.

JOURNAL : Farmers Weekly

We are living in a golden age of geographical information. Never has it been so easy to pay a virtual visit to just about anywhere on the planet.

I can lose hours following my son doing his much-delayed “gap yaah” around South America.

I can indulge in a tear-filled nostalgia fest as I track down the New Zealand youth hostels that hosted me in 1981, when “gap yaahs” were simply called “years out”. Some are still there.

Closer to home, I get back from a shoot and just love tracking down the aerial views of the drives, and work out why I was facing the wrong way when the main covey came over.

See also: Read more of Charlie Flindt's columns

And then, even closer still, I browse the fantastic aerial view of my own farm, and spot the mysterious and previously unknown lines and enclosures that were visible from God-knows-what altitude in March last year, when the latest pictures were taken.

If I could only get the landlord to take an interest and do a bit of digging, we'd be able to start in precisely the right spot, thanks to all the measuring tools available.

And yet, the very same Mr Google who is responsible for this seemingly infinite virtual atlas is also responsible for the very opposite: geographical information that is completely wrong.

Delivery disappointment

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I knew something was up a couple of Christmases ago, when the children had ordered presents – via the internet, of course.

Thanks to the marvels of technology, they were able to track their latest purchase, which was inevitably yet another high-tech gizmo.

I find it best not to ask how much the latest purchase cost, or what was wrong with the last one. You just end up feeling old.

The tracking would say “pending despatch”, then “has been despatched”, and then it was “en route”. Excitement would build; time to get the dogs in and wait by the open kitchen window.

There would then be an anguished cry, followed by a quivering bottom lip. The tracking message read: “We tried to deliver, but there was no-one home. Please ring this number to rearrange delivery.”

Not surprisingly, angry phone calls would follow, consoling hugs were meted out, but there was still no parcel as promised.

The mystery was solved by a recent delivery of farm stuff. The driver rang: “I’m outside Manor Farm.” I said he couldn’t be, ‘cos I was, and he wasn’t. But I could hear an engine running.

I followed the rumble of an idling diesel engine, and found him parked outside Godwin’s Farm, another heavenly farmhouse on the other side of the tractor barn from ours.

Just Google it

I explained that he was outside the wrong house. “Not according to Google,” he pointed out on his tablet, and indeed he was right. There was a Manor Farm tag right over Godwin’s Farm.

Now, Godwin’s Farm is not only heavenly, it is also empty, and has been for some time. All those parcel deliverers may indeed have knocked on the door and had no reply.

It all made sense. And it’s not just us; my neighbour’s Flower Emporium has been mysteriously moved west. I wonder how widespread the problem is.

I’ve tried emailing Google to point out its error, but, not surprisingly, have had no reply. I doubt my message made much of an impact in the inbox of the world’s biggest company.

I could get my son to divert his travels, head north to California, and hammer on the door of Google’s HQ, which, Google tells me, is at 1,600 Amphitheatre Parkway, Mountain View. Mind you, that’s probably wrong, too.

Charlie Flindt is a tenant of the National Trust, farming 380ha in Hampshire with his wife, Hazel.

JOURNAL : Farmers Weekly

Fly strike cases in sheep are increasing rapidly after warmer- and wetter-than-average weather in many parts of the UK created ideal conditions for blowfly and other parasites to thrive.

An online map, sponsored by Elanco, which automatically updates fly strike incidents, is showing new cases daily.

Although nowhere on the map is shown as red (high risk), a huge swathe of the country - from the south coast of England to the tip of Aberdeenshire - is now on amber alert after recorded cases.

See also: Health experts launch new aids for parasite control

Signs of fly strike, from early to severe

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Irritation

Nibbling at tail head

Increased tail movement

Rubbing and discomfort

Discoloured/damp fleece

Fleece loss

Sick animals

Separation from flock

Death (due to septicaemia, secondary bacterial infection and release of toxins)

The National Animal Disease Information Service (Nadis) has also highlighted blowfly strike in its latest monthly bulletin, warning farmers to be vigilant.

The Nadis bulletin said average temperatures were up by as much as 2C compared with the normal seasonal level and rainfall in many regions was up by almost 20%.

It warned sheep farmers to look for the signs of fly strike as the peak for cases through June and July continued to be fuelled by the weather.

Wet fleeces, dirty back ends and lesions such as foot-rot all create perfect conditions for the green bottle fly to lay its eggs, says Nadis.

The hatched maggots then attack any open wounds, causing injury and infection.

Nadis has recommended a comprehensive prevention strategy should be put in place where farms are at risk.

Prevention strategy

Apply preventative product after consulting the farm vet

Reduce dirty back ends with dagging, crutching and shearing

Control worm and parasite burdens to improve general health and reduce dirty fleeces

Treat lame sheep to protect open wounds

Manage the fly population using traps, which have shown to cut strike incidence by 80%

Dispose of deadstock promptly

Consider grazing more exposed pastures that attract fewer flies in high-risk areas

JOURNAL : Farmers Weekly

A consistent and firm rearing-calf trade is yet to be buoyed by surging prime cattle values currently seeing finished prime beef averages up 20p/kg on the year.

Great Britain's steer averages are up 20p/kg at 200-204p/kg, heifers are up 10-20p/kg at 210-216p/kg and bulls are 10p/kg dearer at 188-190p/kg.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

However, auctioneers report a stable but not rising calf trade.

Latest AHDB store and rearing calf prices (6-12 May) for rearing calves less than six weeks old show Hereford-cross bulls averaged £164 a head and continental bulls have made £280.

Markethill, Co Armagh

Stronger prime cattle prices have lifted stores values but are yet to be felt in the dropped calf ring at Markethill, according to mart director Hampton Hewitt.

Weekly calf sales see 140-150 sold each Tuesday, of which 80-90% are from the dairy herd. About 75% are young rearing calves under six months old.

Mr Hewitt says better calves are making £270-£350 and the best make £400.

"Factory prices have gone up, store trade has firmed and it will be at least three to six months before those stores are in the system," he says. "Calf prices, meanwhile, have been less affected by prime values."

Native-bred schemes are creating demand for the best angus and Hereford-cross calves, while veal contracts have underpinned demand for Friesian bulls.

Mr Hewitt said there had been a trend for farms to sell weaned calves young, rather than holding on to them and running them on grass.

"Marts have seen a big increase in young weanlings around three to six months old. Our numbers peaked at 310 the other week and are up 20% generally."

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Carmarthen

Trade has remained consistent with some minor weather and lambing-related drops in price through the spring, says Nigel Griffiths, auctioneer at Carmarthen Livestock Centre for BJP Marts.

Carmarthen's Wednesday sales are seeing 550-600 rearing calves under the hammer, usually made up of 400 beef-crosses and 100-200 Friesians.

A more all-year-round calf supply has been the feature of recent years, with 550 calves still going through the ring in the autumn.

A strong nucleus of 15-20 calf dealers ringside every week has kept calf prices strong but weather or busy times – lambing and silaging – can knock £10-£20 a head off trade.

During the spring-block calving season numbers can lift 25-30% on the norm, but Mr Griffiths says trade usually holds up during these busy periods.

"We may see trade back a little this week as people make hay and silage," Mr Griffith told Farmers Weekly. "It's been a tough winter and people have jobs to catch up on."

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Prices for 20-day-old to four-week-old calves have been hitting £300-£400 for Blue-cross bull calves with heifers at £270-£340. Limousin-cross bulls have made £300-£350 and heifers have been at £230-£280.

Natives have been around £220-£270 for bulls and £180-£230 for heifers, although buoyant prime trade is not lifting calf values.

"Sometimes the previous year has a bearing on what people are willing to pay," Mr Griffiths says.

JOURNAL : Farmers Weekly

A fly-tipper has been fined £400 for dumping rubbish outside a farm following a successful appeal to trace the offender by Farmers Weekly.

Plucky dairy farmer Joe Tucker, 19, appealed to readers for help to identify the fly-tipper, who was caught on camera chucking waste out of her car.

Mr Tucker posted a video on Facebook, recorded on an infrared, battery-operated wildlife camera, which show a woman fly-tipping outside his farm in Temple Cloud, in the Chew Valley, north-east Somerset.

See also: Farmer's £70 camera catches fly-tipper in the act

The video, which has been viewed more than 1.4 million times on Facebook, films the woman, aged about 55-60, opening the boot of her 4x4 Audi and nonchalantly removing a large plastic bag and depositing it by the hedge.

She returns to the boot to fetch some old wooden garden border fencing, which is also dumped.

Unbeknown to her, the woman's actions were recorded on a £70 wildlife camera which Mr Tucker had strategically placed near a fly-tipping "hotspot" on his farm.

FW appeal

Following his appeal in Farmers Weekly last month, a number of people contacted Mr Tucker saying they had seen the report in the magazine and online and they knew the identity of the woman.

"The same name kept coming up again, so my mum decided she would call this woman and have a 'heart to heart'," Mr Tucker told Farmers Weekly. "My mum rang her up and told her: 'We know it's you. It's getting very heated on Facebook. It's all over the news. It's better to come forward now.'"

"We struck a deal with her, that if she goes to the council and admits the offence, we would not put her name out."

Mr Tucker said the woman apologised for her behaviour and said she would go to the council offices and confess.

She was interviewed by environmental officers at Bath and North East Somerset (Bathnes) Council in Bath on Friday (8 June).

She was issued with a £400 penalty and given a caution about her future behaviour.

Mr Tucker said he was pleased that the woman had been punished for her crime. However, he was upset that the council refused to use some of the money to pay for the removal of the waste, which is still in place.

Cost of clearing

Alternatively, Mr Tucker said the council could have ordered the offender to pay for the cost of clearing.

"Bathnes Council took the money, but we still have to pay to remove somebody else's waste. How is that fair?" said the farmer.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"The council officer said I could separate the waste into smaller bags and take it to the tip. But the rubbish was dumped on asbestos waste, which had been dumped there previously.

"I don't think it's fair that I should have to sift through this and risk my health. A contractor should come out and do it."

Deterrent to others

Mr Tucker thanked Farmers Weekly for highlighting his case and said he hoped it would act as a deterrent to other fly-tippers.

"It worked out well for us. She got a fine, she got a punishment," he added. "But we believe the penalty should have been bigger to send a message to others that dumping rubbish in the countryside is totally unacceptable."

Farmers Weekly has contacted Bathnes Council to request a comment.

Fly-tipping on private land: landowner responsibilities

Fly-tipping is the illegal dumping of liquid or solid waste on land or in water. It's against the law to allow fly-tipping on your land, as fly-tipped waste can harm human health or the environment.

If you find waste dumped illegally on your land or water (for example, river, stream, pond or ditch) you must:

Arrange to remove the fly-tipped waste safely – see the waste duty of care guidance

Pay for the removal and disposal

Your local council or the Environment Agency may take enforcement action (like your local council serving you a notice to remove the waste) if you don't get it removed.

Report the incident

You should report the incident to your local council or the Environment Agency on 0800 80 70 60.

You should give the details (if you have them) of the date, time, location and description of the waste and of any vehicle involved.

When the Environment Agency will clear waste

The Environment Agency will only give you advice or clear the waste if the waste is harmful to human health or if there is an immediate threat to the environment - for example, if it is:

A large amount of hazardous waste (your local council is responsible for smaller amounts)

More than 5cu m of asbestos

75 litres or more of potentially hazardous waste in drums or containers

More than a large lorry load (about 20cu m) of any type of waste

In water and could pose a flood risk or cause pollution

(Source: Environment Agency)

JOURNAL : Farmers Weekly

Locals were left disgusted after 10 bags of rotting sheep carcasses were dumped in Dartmoor.

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The remains were discovered near Cadover Bridge, a beauty spot popular for family get-togethers in Yelverton, south Devon.

The blue and black rubble sacks contained sheep fleece and jaw bones, possibly from illegal slaughter.

See also: Fleeced – police failure to tackle sheep rustling exposed

Devon and Cornwall police believe the sheep may have been stolen as there were no identifiable marks or tags discovered.

Special constable Adam Bush, of the force's specials rural engagement team, told Devon Live: "There are concerns about whether the meat from the sheep has gone into the trade for human consumption, how it's been slaughtered, where the meat came from, has it been properly checked?"

Illegal slaughter

Mr Bush said police were called to the site by Trading Standards officers.

Nicky May, Devon, Somerset and Torbay Trading Standards Service's intelligence manager, said: "The remains of animals slaughtered legally would be disposed via approved premises. When livestock is illegally slaughtered the options available for disposal are limited.

"Those responsible would be unable to dispose of the remains at an approved disposal site, which are all inspected by Animal and Plant Health Agency vets, without questions being asked. We are investigating the matter."

Anyone who may have seen suspicious activity in the area can report to Trading Standards on 01392 381 381 quoting reference 769453 or anonymously to Crime Stoppers 0800 555 111

JOURNAL : Farmers Weekly

A 20t lorry used by fly-tippers to illegally dump waste across the West Midlands has been seized and crushed by police and the Environment Agency.

The vehicle was detained by officers last year and finally crushed on Friday (18 May) after months of surveillance and intelligence gathering.

Police and agency officials launched Operation Poppy after 28 incidents of large-scale fly-tipping in north Staffordshire, Shropshire, south Staffordshire and north Worcestershire.

See also: Revealed: The burden of fly-tipping on farms

The DVLA issued a prohibition notice and immediately removed the lorry off the road after the vehicle was found to be using trade plates illegally and deemed unsafe to drive.

It was used to transport and dump large quantities of shredded household commercial waste on farmland, private wooded estates, secluded public footpaths and business compounds.

Secured areas were broken into and locks replaced by the offenders. The tipper truck driver and passenger were questioned by the police and remain a line of enquiry.

Illegal activity

Environment Agency officers working on the case have reported a reduction in illegal waste activity in the area since the lorry was seized.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Agency chairman Emma Howard Boyd said: "We are determined to make life hard for waste criminals by preventing and disrupting illegal activity.

She added: "Today's vehicle crushing highlights the lengths we will go to make criminals pay for their unlawful deeds."

Waste crime

New powers – including the authority to lock up sites and force rogue operators out of business – means the agency is in a better position to combat waste crime.

In the financial year 2016-17, the agency brought 138 prosecutions against businesses or individuals for waste crime offences, yielding more than £2m in fines.

As the fight against waste crime ramps up, the Environment Agency has recently introduced body-worn cameras for waste enforcement officers.

It follows an increase in abusive incidents during site inspections.

JOURNAL : Farmers Weekly

French politicians have backed a proposal for mandatory labelling of meat and dairy products from animals raised on genetically modified (GM) feed.

The proposal is contained in the first draft of president Emmanuel Macron's Food and Agriculture Bill, which is being debated in French parliament.

The Bill is also seeking to make it mandatory for labels to include details of pesticides used on fruit and vegetables.

See also: France to ban 'misleading' veggie products

Calls for a change in the labelling laws came from France Nature Environnement – a federation of environmental groups – which described the result as a victory.

French politicians have already voted to ban "misleading" vegetarian products which use meaty names such as sausage or steak.

Senate vote

The Food and Agriculture Bill will now be put to the French Senate to examine from 26 June.

If accepted by the senate, the labelling laws will start by January 2023. On-pack labels would have to include information on the conditions under which the animal were raised and whether they had GM feed.

Patricia Thomas, director for Beyond GM, part of the Sustain food and farming alliance, believes the UK government should take note of the ruling in France.

"Most of the UK's conventionally reared animals are given GM feed and meat, eggs, fish and dairy are one of the most common ways in which UK consumers come into contact with GMs," said Ms Thomas.

"Labelling is an important start, especially given the strong opposition that the UK public has to eating GMs."

Ms Thomas called on supermarkets to reinstate strong sourcing policies that reject GM-fed animal products.

She added: "Our government, too, needs to step up – with a coherent food and farming policy that produces food – rather than labels – that people can trust."

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Feed me the Truth study

GM Freeze carried out its own research in 2016 into the level of GM feed used in the UK supply chain in 2016, with its study Feed me the Truth.

The anti-GM lobby found all the UK's top 10 supermarkets were stocking GM-fed products, including eggs, meat, dairy, poultry, red meat and farmed fish.

Waitrose, which has announced a new EU soya supply line, is stocking less GM-fed meat than the other UK supermarkets, the survey found. But it cannot guarantee that any individual product is non-GM fed, unless it is organic.

GM Freeze campaign director Liz O'Neill said: "We want to see strong regulation of GM across the food chain and information for consumers through the labelling of GM ingredients and the use of GM feed.

"People do want to know how their food is produced. Everyone should be able to find out about the provenance of their food."

JOURNAL : Farmers Weekly

The free-range egg industry has warned that the sector is at risk of supply outstripping demand, putting downward pressure on farm gate prices.

Defra statistics show that free range eggs accounted for 51% of throughput in the first quarter of 2018, which is three percentage points higher than in Q1 2017.

In total, 3.9m cases of free range eggs were produced during Q1 2018, compared with 3.5m in 2017, 3.2m in 2016 and 2.9m in 2015.

See also: All major retailers committed to cage-free eggs by 2025

Over the same three-year period, the average retail price of eggs has fallen from 98.8p/dozen in 2015 to 82.7p/dozen in Q1.

Robert Gooch, chief executive of the British Free Range Egg Producers Association (BFREPA), said that over the past three years existing producers had got bigger and there had been a large number of new entrants to the industry as people sought to diversify.

This meant the sector was now at a "tipping point", with a risk that it could overshoot the market and suffer price cuts later this year.

"Over the past three years the free range industry has been growing at 10% a year, but overall egg consumption has been increasing at only 5%," he said.

"So we think its unsustainable and we think we are at risk of over oversupplying the market which will have terrible consequences in terms of egg price."

Mr Gooch said retailers announced last year that they were moving away from caged eggs from 2025 and there had been general misunderstanding that this meant eggs from caged hens would be replaced with free-range.

BFREPA's conversations with retailers suggest, however, that they intend to meet their commitments by shifting to eggs produced in barn systems.

This will be more cost-effective and so help supermarkets to keep delivering a "value" product.

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Mr Gooch said producers were often attracted to free-range egg production as an enterprise as it had the lowest capital requirement of all the systems.

But it was vital that farmers took independent advice on budgets.

According to BFREPA's latest figures the margin (excluding finance and depreciation) is £1 a bird, but rent and depreciation take that to a loss of £3.04.

BFREPA publishes updated costings on its website each month.

Mr Gooch stressed that the free-range egg sector was still growing and there was no doubt that consumers liked the product.

"The question is how we make sure that we don't overdo it and keep free range growing with demand and not exceeding demand."

JOURNAL : Farmers Weekly

Ed Sheeran, Bastille and Ben Howard – all big names that have played at Barn on the Farm Festival in their fledgling days, hosted by the Keene family at Over Farm just outside Gloucester.

Now gearing up for its ninth year of festival frolics, the farm will be opening its gates to about 3,000 music lovers in early July.

Aside from the legendary Glastonbury Festival, famously set on a Somerset dairy farm, and national events such as Open Farm Sunday, it's rare to find thousands of people gathering on a farm.

See also: Young entrepreneur uses farm's AD energy to power tomato business

Fifth-generation farmer Matt Keene says the festival has grown over the years from humble beginnings after the family was approached by festival director Josh Sanger, and they're now well accustomed to seeing the farm awash with vibrant revellers.

Josh approached them in the summer of 2009 with a rare and intriguing proposal to host a plucky music festival start-up.

The following year 19-year-old Josh put on a relatively small gathering using the farm's old timber grain store and adjoining courtyard as the heart of the intimate party for about 30 people, and Barn on the Farm festival was born.

While it has grown considerably from the early days, it has managed to retain its authentic farm-based vibe thanks in part to the clever incorporation of everyday farm items and buildings, such as potato crates and tin top sheds. This gives the festival its genuine, down-to-earth charm.

Diverse history

The 52ha historically arable farm started its diversification journey under Matt's father Rob, in the 1980s.

Gradually the farm business moved away from growing cereals, potatoes and onions in favour of producing soft fruit and vegetables, including blackcurrants, raspberries, asparagus and pumpkins.

The bulk of the fresh produce is sold through their own farm shop, which has thrived thanks to the farm being just a couple of miles north-west of Gloucester city centre.

Matt looks after the events side of the business, while brother Rees oversees the day-to-day running of the farm and sister Abbie is part of the festival-organising team.

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"I was made a farm partner in 2013 and the festival turned into a limited company around that time. It was more of a hobby for us until then, but from that point the festival got more serious and had to start making money," says Matt.

Over the next few years the team toiled to increase capacity as the festival became more established, adding a second stage and later building a permanent roundhouse structure, which is used as the main stage for headline acts.

Big names at Barn on the Farm

2011 Ed Sheeran, Ben Howard, Gabrielle Aplin

2012 Bastille, Bear's Den

2013 James Bay, George Ezra

2014 Catfish and the Bottlemen, Hozier

2015 Jack Garrett, Rag'n'Bone Man

2016 The Amazons

2017 Tom Odell

Regular reseeding

Being named the UK's Best Independent Festival at the 2014 AIM Independent Music Awards was a real boost for the enterprise, further helped by the fact that it has earned a reputation for booking budding bands and musicians who go on to be major players in the music game.

"Barn on the Farm was actually Ed Sheeran's first headline gig at a festival in 2011 and four years ago James Bay was the first act on, playing our smallest of the three stages.

"You start thinking about all of the amazing artists that we've had over the years and the mind boggles," says Matt.

And while the thought of having thousands of revellers milling around a working farm would be enough to make many farmers tear their hair out, Matt says the chilled-out nature of the festival has meant no major issues have ever come up during the four-day spectacular.

"We're fairly used to reseeding the grass paddocks now," he laughs. "Fortunately, we've only had one really wet year, so the land has never suffered too much. It helps that a lot of the areas for food and drink vendors and watching the artists are on hard standing."

Amazing places

Having grown up in nearby Cheltenham and worked on farms when he was younger, Josh says the sights, smells, unique buildings and history of a farm were all elements he was keen to play on to make his festival extra special.

"The land and architecture of a farm is so unique and there's just something about walking along a dirt track in beautiful weather. It's an amazing feeling to work on the farm in the final month before the festival," he says.

"Farms are amazing places, but more importantly it's about the people who run them. A lot of people can come up with an idea for a festival, but it's something else to make it happen and farmers are used to managing the land in extraordinary ways and coming up with new ideas."

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With a background in directing music videos for artists such as Bastille, Ed Sheeran and Gabrielle Aplin, today Josh manages the likes of George Ezra and Lily Moore and keeps his ear to the ground for the music world's next big thing.

As for the festival's future, Josh says he's planning something special for the 10-year anniversary and would love to see some of the huge artists like Ed Sheeran return to Barn on the Farm.

"It would be great to encapsulate something that made the last 10 years so special, but we'll see," he says.

Hopes are the event will continue to sell out and grow steadily, although Matt highlights the farm only has a finite amount of usable space and thinks that 4,500 festival-goers would be a comfortable number to have at the family farm.

Barn on the Farm is being held again at Over Farm this year from 5-8 July. For more information, to see this year's full line up and to book tickets, visit the festival website.

JOURNAL : Farmers Weekly

Farming organisations have joined forces to promote best practice to help ensure the continued availability of glyphosate-based herbicides.

Last November, the European Commission renewed the approval of glyphosate for five years following a bitter dispute over its safety.

To retain both the availability and efficacy of glyphosate in the UK for agriculture, horticulture, amenity and wider use, they say action is needed at ground level.

See also: Video – farmers explain why glyphosate is vital

Key independent stakeholders AHDB, the NFU, the Agricultural Industries Confederation, and the Weed Resistance Action Group, have worked with industry companies in the UK, including Monsanto and Syngenta, to update stewardship guidance for growers.

A dedicated web page has been set up on the AHDB's website, offering tips on best practice guidance which, when used alongside label recommendations, will help growers maintain glyphosate performance, minimise residues and protect water.

Paul Gosling, lead weed expert at AHDB, said: "The industry fought hard to retain glyphosate and now, with the herbicide's immediate future secured, it is vital that residues are minimised and resistance risks are managed.

"With planning for the 2022 renewal process already underway, glyphosate users must be proactive and follow best practice."

Join the conversation

People with a responsibility for recommending and/or applying glyphosate products are also being invited to take part in a technical "conversation" at 1pm at Cereals 2018 on 13 June.

At the event, a panel of industry experts will discuss effective glyphosate use. The conversation will include a bigger picture look at the future of glyphosate, including its use in perennial crop and amenity systems, which have been identified as being at relatively high risk, in terms of resistance.

Five steps to effective glyphosate stewardship

If you must use glyphosate pre-**harvest** to control weeds, always follow label recommendations to keep crop residues to a minimum

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To use glyphosate as a stale seed-bed management tool, the strategy is: one, prevent survivors; two, maximise efficacy; three, use alternatives; and four, monitor success

Alternatives to glyphosate should be used whenever possible and more than two pre-drilling applications must always be avoided

When applied, glyphosate should be at the right dose, at the right time and in the right conditions

Any surviving weeds should not be treated with glyphosate again and any suspected resistance must always be reported and investigated.

Pre-**harvest** glyphosate use in cereals and oilseed rape

A single pre-**harvest** application of glyphosate per crop should not increase the risk (unless survivors are present from prior glyphosate applications).

Be sure your target market permits the use of glyphosate

Check and follow product labels

Follow best application practice (for maximum efficacy and drift reduction)

Only apply glyphosate as a **harvest** aid when the grain or seeds have less than 30% moisture content

Use the guidance in this publication to estimate moisture contents

Only target weeds that are green, healthy and actively growing

Glyphosate food residue levels 'safe'

Scientists from Europe's food safety watchdog have concluded glyphosate residues present in EU food samples are safe for human health.

The European Food Safety Authority has completed its review of the maximum levels of glyphosate that are legally permitted to be present in food, based on data on glyphosate residues in food submitted by all EU member states.

The maximum residue levels are set to ensure consumers continue to be protected against excessive quantities of glyphosate in their diet. They are based on an analysis of all existing authorised uses of the herbicide in the EU.

The review – covering all crops treated with glyphosate – includes a risk assessment which shows exposure levels are not expected to pose a risk to human health.

JOURNAL : Farmers Weekly

Defra secretary Michael Gove has issued licences to farmers in England to cull ravens on farmland to protect newborn lambs.

Mr Gove has agreed that Natural England can issue licences for ravens to be culled in five English counties – Derbyshire, Lancashire, Berkshire, Wiltshire and Dorset.

Farmers Weekly understands the licences have only been granted to a small number of farmers in these areas. If the trial proves successful, more licences could be granted to farmers elsewhere.

See also: NSA supports wider cull of ravens to counter high lambing losses

The move will be welcomed by farmers, who have been campaigning for a cull to be introduced for several months. But it has angered conservationists, including the RSPB, because ravens (*Corvus corax*) are a protected species.

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Last month, the National Sheep Association (NSA) called for the cull of ravens to be widened from Scotland, where it is routine, to other areas to counter high lamb losses.

Figures from Scottish National Heritage (SNH) show more than 1,000 of the animals have been culled each year since 2016.

NSA welcomes move

NSA chief executive Phil Stocker said the NSA has received reports of up to 100 lambs killed by ravens in Scotland this year.

But responsible culling under licence “will allow farmers to keep on top of the numbers and protect stock when they are at their most defenceless”.

Mr Stocker said: “We think this is a really positive move and recognition of some of the problems that ravens can cause.

“Culling is a way to stamp out the nasty behavioural traits that can develop in these birds. They are very intelligent birds and the ability for them to communicate within a group is massive.

“One of our members in south Wiltshire said 80 of his ewes and lambs were lost, or had to be put down last year, because of raven attacks.”

He added: “Ravens can peck out the eyes and tongues of lambs. We have also received reports of lambs’ stomachs being ripped out before they are able to stand. They can be really vicious birds.”

Raven numbers

According to the RSPB, the UK’s raven population is estimated at 7,400 pairs (RSPB, 2016).

An RSPB spokesman said: “We are concerned because raven populations are recovering well after a period in which their population suffered significant declines, in part driven by widespread historic persecution.

“We understand farmers’ concerns over ravens, however we need NE to be very clear on the licensing process and we seek assurances that the continued recovery of raven populations in England will not be compromised.”

Ravens are protected under the Wildlife and Countryside Act 1981, but licences can be issued to cull a “small number of birds”.

JOURNAL : Farmers Weekly

Michael Gove has announced plans to crack down on illegal waste crime and fly-tipping by organised criminal gangs, which is blighting the countryside.

The Defra secretary has announced a three-month review to beef up the government’s approach to tackling waste crime in England.

Waste criminals operate illegal sites, evade landfill tax and undercut responsible waste disposal businesses, say ministers.

See also: Revealed – the burden of fly-tipping on farms

Their activity cost the English economy £600m in 2015. In 2016-17, councils spent £58m of taxpayers’ money clearing fly-tipped waste.

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Mr Gove said: "Organised criminals running illegal waste dumps and fly-tipping are blighting local communities. They cost our economy vast amounts of money, pollute our environment and harm our wildlife.

"We must crack down on these criminals, who have no regard for the impact they have on people's lives. The time is right for us to look at how we can best tackle these antisocial and inexcusable crimes."

Waste sites shut down

More than 850 new illegal waste sites were discovered by the Environment Agency in 2016-17.

An average of two illegal sites are shut down every day, but they continue to create severe problems for local communities and business, especially in rural areas.

The Home Office believes criminals may also operate illegal waste sites as a cover for theft, human trafficking, fraud, supplying drugs and firearms, and money laundering.

The review, launched on Sunday (10 June), will consider serious and organised waste crime, including the government's response – so that the panel can make recommendations for a strategic approach.

Led by Defra non-executive director Lizzie Noel, the review will also consider other measures for the Environment Agency, local authorities, the private sector and the police to tackle organised waste crime.

New measures

The latest announcement builds on a range of measures to tackle waste crime, including new powers for the Environment Agency to lock the gates of problem waste sites and for councils to **hand** out on-the-spot fines for fly-tippers.

The review is due to be completed in September, after which an evidence-based report will be submitted to Defra ministers for consideration.

Tim Breitmeyer, president of the Country, Land and Business Association (CLA) said: "Fly-tipping is not a victimless crime.

"The government, local authorities and the Environment Agency must work together with farmers and landowners to help reduce fly-tipping on private rural land.

"It's a vicious cycle of costly clean-ups by the victims who bear the burden of waste crime and the threat of prosecution."

5 ways to get tough on fly-tipping

Impose and enforce penalties that better reflect the seriousness of the crime – seizure of vehicles must be the default penalty to send a clear signal that criminals will face damaging consequences if they are caught fly-tipping.

Enforce fines for home and business owners whose waste is found in fly-tipped locations – to act as a deterrent and encourage waste disposal through legal channels.

Appoint a national "fly-tipping tsar", whose responsibilities would include **co**-ordinating with national agencies to tackle organised criminal gangs, monitoring and reporting on the scale of the problem across public and private land, and benchmarking enforcement performance.

Develop new ways to aid clear-up and support victims, such as a new scheme to allow any private landowner to dispose of fly-tipped waste free of charge, and removing the landowner's liability to clear up waste on private land.

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Promote education and working in partnership by sharing best practice and advising landowners on how to reduce the chance of being a victim of fly-tipping. Examples of local partnerships include shared CCTV monitoring schemes, Countryside Watch and incident intelligence sharing, which should be showcased.

Source: Country Land and Business Association

JOURNAL : Farmers Weekly

Strict and tighter limits will be imposed on ammonia emissions from agriculture under government plans to improve UK air quality.

Farmers and livestock producers face further restrictions on organic and inorganic fertiliser, including manures, slurries and nitrogen-rich chemicals and their application.

Environmental controls will be extended to large dairy farms by 2025 under the plan – similar to the permits already applied to intensive pig and poultry units.

See also: What EU ammonia rules could mean for pig farmers

The proposals are contained in the government's Clean Air Strategy, which was launched by Defra secretary Michael Gove on Tuesday (22 May).

For the first time, the government will take concerted action to tackle ammonia from farming – which is responsible for 88% of ammonia emissions, says the document.

Farmers will be required to invest in the infrastructure and equipment necessary to reduce emissions – and supported to do so through a new system of public money for public goods.

'Biggest threat'

The government says air pollution is the fourth biggest threat to public health after cancer, obesity and heart disease. Other industries will also face restrictions.

Mr Gove said: "We will work with businesses, farmers, industry and households to develop innovative new solutions to reduce emissions."

The Country Land and Business Association said it was important any scheme provided genuine incentives to support farmers making the changes. CLA president Tim Breitmeyer said any system must provide flexibility and easy engagement for farmers alongside clear obligations for delivery.

He said: "We will consider carefully the proposals that require farmers to invest in any system or new infrastructure and equipment that helps deliver sustained improvements."

Serious emissions

But the Soil Association said the government's plan for tackling air pollution failed to do enough to tackle serious ammonia emissions from farming.

Soil Association policy officer Honor Eldridge said: "If the UK is to improve its air quality, it is critical that we address all the causes of air pollution.

"While UK emissions of nitrogen oxides have fallen by about 70% due to measures to control air pollution in the last two decades, there have only been small decreases in ammonia emissions."

Ms Eldridge said the government should support and promote a wider shift towards more extensive farming systems, such as organic grass-based systems with lower stocking densities.

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The proposals are in addition to the government's £3.5bn plan to reduce air pollution from road transport and diesel vehicles, set out in July last year.

Defra says the combined actions will reduce the costs of air pollution to society by an estimated £1bn/year by 2020, rising to £2.5bn every year from 2030.

JOURNAL : Farmers Weekly

Fresh legal challenges to the government's badger cull will be heard at the High Court this summer.

Defra executive agency and culling licensee Natural England is facing two legal challenges in July over its decision to extend the culls, which are part of the government's 25-year bovine TB eradication programme.

The legal action is being led by Tom Langton, an ecologist with a long-standing interest in wildlife disease and nature conservation.

See also: Expert advice – what happens if my herd fails a TB test?

Mr Langton's legal challenge is being financed through crowdfunding and he is also supported by the Badger Trust, the Born Free Foundation, 20 badger groups around the country, and private individuals.

The first judicial review relates to the five-year supplementary culling licences issued to west Somerset and west Gloucestershire by Natural England.

The claimants question the way consultation was carried out in 2016-17 in relation to the 2011 badger culling policy and its science.

In numbers: bovine TB and the badger cull

40,000+ TB-infected cattle were slaughtered in the UK in 2017

19,274 badgers were culled across 21 areas last year

Nine new areas have applied for licences to cull badgers in 2018

£100m annual bill to taxpayer from cost of bovine TB

The second judicial review relates to the 2017 badger culling licences for five of 11 areas where culling was introduced that year, on the grounds that assessments of the ecological effect of culling more than 70% of the badger population "were not done correctly".

High Court hearing

Both legal challenges will be joined and heard by the same judge at the High Court in London from 9 to 11 July.

Mr Langton told Farmers Weekly: "There are a lot of animals in decline or rare species in the countryside and it doesn't take much to change their habitats before their fate is changed.

"This is not really anything to do with TB, it's really to do with how Natural England and Defra have handled the consultations.

"It's about getting proper safeguards for the environment and making sure that the right decisions are made. We don't believe Natural England has gone through this whole process properly."

A third challenge to the 2016 badger cull impact assessments is being "worked up", anti-cull campaigners say.

If the legal challenge succeeds, it could result in some of the licences being quashed.

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Government response

A Defra spokesperson said it would be inappropriate to comment on the particulars of the case while a legal matter is ongoing.

But the spokesperson said bovine TB is one of the greatest animal health threats in the UK and has a devastating effect on our farmers.

“It is a slow-moving, insidious disease that presents many challenges and there’s no single measure that will provide an easy answer. That is why we are pursuing a wide range of interventions, including cattle movement controls and a cull of badgers in areas where disease is rife.”

JOURNAL : Farmers Weekly

Government plans for a new environmental watchdog after the UK leaves the European Union have been criticised by industry leaders and environmental campaigners.

A 12-week consultation on an independent statutory body to hold the government to account and uphold environmental standards was launched on Thursday (10 May).

See also: Will farmers pay price of government's 'green' Brexit?

Defra secretary Michael Gove said an Environmental Principles and Governance Bill will then be published in draft form this autumn and introduced early in the next parliamentary session.

The proposed new body would partly replace the role currently played by EU agencies holding UK governments to account for the delivery of environmental policy.

The consultation sets out options for transposing existing international environmental principles into domestic law and creating a new office.

'Independent scrutiny'

Defra says the new body will provide independent scrutiny and advice on government policy – and will be able to hold the government to account on environmental legislation.

But the Country Land and Business Association said the plans risked adding confusion and complexity rather than genuine accountability to environmental policy.

CLA policy director Christopher Price said the UK had some of the highest environmental standards in the world – which should be maintained through Brexit and beyond.

But it was important that everyone involved in deciding, implementing and complying with environmental law was working to clear and consistent standards.

“We are concerned that what is suggested in this consultation could add significant cost, complexity and bureaucracy to the system and put at risk the better delivery of environmental policy.”

'Confusing arrangements'

The CLA would be asking the government why it was not looking at a more fundamental consolidation of the many agencies currently involved in environmental governance.

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Mr Price said: "This agency could end up duplicating or confusing existing arrangements for scrutiny and enforcement in parliament, existing public authorities and the courts."

Environmental campaigners have also criticised the government's plans.

Greener UK, which represents 13 environmental organisations, said the government's proposals would give the environment and countryside less protection.

Greener UK chairman Shaun Spiers said: "There is no commitment to give the proposed new watchdog power to initiate legal action.

"Nor is there any commitment to enshrine vital environmental principles – such as the precautionary principle and the polluter pays principle – in law."

'Fundamental test'

Mr Spiers said the proposals failed the fundamental test of ensuring that environmental protection was not weakened after the UK left the EU.

"It is not too late for the government to deliver on its commitments, but with less than a year to go until we leave the EU, time is running out," he added.

Mr Gove said the new watchdog would ensure a "green" Brexit – and insisted the government would not weaken environmental protections.

"We will only achieve our aims by also creating a strong and objective voice that champions and enforces environmental standards," he said.

An independent and statutory watchdog would hold governments to account for delivering their commitments to the natural world, Mr Gove added.

JOURNAL : Farmers Weekly

Stricter controls are to be imposed on fertiliser, manure and slurry applications under government plans to improve UK air quality.

Dairy and beef farms are among the sectors that will bear the brunt of restrictions as the government seeks to reduce ammonia emissions from agriculture. The proposals are contained in a draft Clean Air Strategy, launched by Defra secretary Michael Gove on Tuesday (22 May).

See also: Pig units facing huge bill to comply with emission laws

The government says air pollution is the fourth biggest threat to public health after cancer, obesity and heart disease. And it says concerted action is needed to tackle pollution from farming – which is responsible for 88% of ammonia emissions.

New fertiliser rules include injecting rather than spreading urea – unless applied with a urease inhibitor; incorporating manure within 12 hours of spreading; and injecting or applying slurry with a trailing shoe rather than spraying it on to fields.

Defra's plan to reduce ammonia emissions

Similar controls for the largest dairy farms to those currently applied to intensive pig and poultry units under the environmental permitting regime by 2025.

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A requirement to spread urea-based fertilisers in conjunction with urease inhibitors, unless applied by injection on appropriate land by 2020.

Mandatory design standards for new livestock housing by 2022 – with standards covering at least poultry, pig and dairy housing.

A requirement for all solid manure and solid digestate spread to bare land to be incorporated within 12 hours by 2022.

The requirement for all slurry and digestate stores and manure heaps to be covered by 2027.

Maximum limits for (organic and inorganic) fertiliser application, taking account of economic efficiency and commitments to reduce ammonia and greenhouse gas emissions and to protect habitats and water bodies.

A requirement to spread slurries and digestate using low-emission spreading equipment (trailing shoe or trailing hose or injection) by 2027.

The requirement and support for farmers to make investments in farm infrastructure and equipment that will reduce emissions.

A national code of good agricultural practice to reduce ammonia emissions.

An environmental land management system that funds targeted action to protect habitats affected by ammonia.

Source: Clean Air Strategy 2018, Defra

Mandatory standards

Environmental controls will be extended to large dairy farms by 2025 under the plan – similar to the permits already applied to intensive pig and poultry units. Livestock buildings will face mandatory design standards and slurry stores and manure heaps will have to be covered.

Defra says farmers will be required to invest in the infrastructure and equipment necessary to reduce emissions – and supported to do so through a new system of public money for public goods, including an environmental land management scheme to be introduced after Brexit.

Primary legislation will be introduced following a public consultation which **ends** on 14 August. Mr Gove pledged: “We will work with businesses, farmers, industry and households to develop innovative new solutions to reduce emissions.”

The announcement came on the same day as AHDB Dairy, Dairy UK and the NFU presented a Dairy Roadmap 10th anniversary report showing that ammonia emissions from agriculture decreased by 19% between 1990 and 2015.

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More red tape and additional costs?

Defra's plans to cut ammonia emissions on farms will create more regulation for farmers – the opposite of the government's pledge to cut red tape post Brexit, the National Beef Association (NBA) has warned.

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However, NBA chief executive Chris Mallon said it would be the additional costs to farm businesses that beef farmers would fear most.

"All I see is pound signs here. The reality is, we're being brought down an environmental route that we cannot actually operate in and produce in.

"If we produce less and the price goes up, it might be good for the farmer. But how will this sit with the government and its cheap food policy?"

The Royal Association of British Dairy Farmers (RABDF) said Defra must introduce an earned recognition system to help dairy farmers cut ammonia emissions, if its plans to improve air quality are to have any chance of success.

"The most effective way of generating results from the dairy sector is through earned recognition; where we would see progressive farms rewarded for their actions and contribution," said the charity, in response to Defra's consultation.

The RABDF said ammonia has always been an issue in farming, but as a natural emission of livestock, its definition and the science associated with it must be made clearer to farmers in order to move forward.

"Defra must outline more clearly how these practices will contribute to its reduction through a series of tangible stats and facts," it added.

What farmers are saying

Robert Craig, dairy farmer, Cumbria

"The dairy industry is coming out of a fairly big recession. If the government wants us to do all these things, they're going to have to fund us. Either that, or consumers will have to pay more for their food."

Angus Gowthorpe, beef farmer, Escrick, Yorkshire

"There certainly isn't enough money in beef to enable me to build a shed with concrete floor, effluent tank etc just to store 6-9 months of farmyard manure."

Phil Latham, dairy farmer, Cheshire

"Defra has to regulate the market and extend the remit of the groceries code adjudicator to ensure an equitable share of available margins for farmers, so that we can fund investments that need to happen."

James Winslade, beef farmer, Bridgwater, Somerset

"Any grants that are made available for equipment must be protected against significant price rises from the manufacturers as soon as the grant comes out."

What industry is saying

NFU deputy president Guy Smith said a range of actions were needed to ensure farmers could retain the capacity to produce food while continuing to safeguard the environment. He added: "It is crucial that new measures support farm businesses to be productive and competitive."

Country Land and Business Association president Tim Breitmeyer said any scheme must provide genuine incentives to support farmers making the changes. It should also provide flexibility and easy engagement for farmers alongside clear obligations for delivery.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

But the Soil Association said the proposals failed to go far enough. It said they should include support for a wider shift towards more extensive livestock farming – such as organic grass-based production systems – with lower stocking-densities.

The proposals are in addition to the government's £3.5bn plan to reduce pollution from road transport and diesel vehicles. Defra says the combined actions will reduce the cost of air pollution by £1bn annually by 2020, rising to £2.5bn annually from 2030.

JOURNAL : Farmers Weekly

Dry weather in some key grain producing areas around the world is pushing domestic prices ever higher.

Between £145/t and £164/t ex-farm was being offered for new crop UK feed wheat midweek, with a tight end of season picture.

New crop barley was worth £130/t-£142/t ex-farm for harvest movement.

See also: Can the grain price rises of recent weeks continue?

Grain price factors

Tight UK end of season grain balance

Dry weather reducing global crop outlooks in important regions

UK 2018 wheat crop estimated at about 14.4m tonnes

Highest UK barley use for 25 years

Contract high for November 2018 London feed wheat futures of £158.25/t delivered

Across all grains – wheat, barley, oats and maize – for the current season the UK is facing the tightest balance of grain available compared with total expected domestic consumption for four years.

Weather worries in parts of Canada, Australia, the US, Argentina, Brazil and the Black Sea region are the key concerns. Traders highlight the likelihood of volatility as crop and weather news emerge.

AHDB Cereals & Oilseeds pointed out that with opening grain stocks for the new season looking as if they will be below average and an early estimate for the size of the UK wheat crop at just 14.4m tonnes, domestic supply of wheat is set to fall by about 3% year-on-year.

Wheat use in animal feed is already up 3% year on year, and in the poultry sector at least this looks set to continue.

Broiler chick placings between January and April this year were 5% higher than in the same period of 2017 and up 11% on the five-year average.

Tight wheat supply has encouraged more use of barley across the UK, which is at its highest level for 25 years.

JOURNAL : Farmers Weekly

High-horsepower foragers were making pretty light work of the showground's grass crop. New Holland, John Deere and Fendt all had their choppers at work, as did Krone with its new Liebherr-powered Big X 780.

The Swiss engine maker also builds Claas' new range of Torion loading shovels, which were beavering away on the nearby silage clamp.

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Other highlights included an old John Deere 6030 pulling a forage box on the Kverneland stand and an unusual system for sheeting silage clamps.

See also: High-hour Horsepower: 26-year-old forager still going strong in Herefordshire

John Deere 6030 and Kverneland forager

Vintage horsepower is guaranteed to pull in the show crowds as Kverneland found when it hooked this 1972 John Deere 6030 to one of its latest KV10040R forage wagons. There was plenty of black smoke to show for its efforts, but the 213hp, six-cylinder up front had ample power for the job.

Warthog Buckrake

Somerset-based Warthog Machinery has something of a reputation for putting together seriously well-built bespoke bits of kit.

The latest example is this ultra-heavy duty buckrake. It stands 2.7m wide and weighs 1850kg to help with clamp consolidation. One key concern for the customer was visibility, and so it's been designed with that in mind. In addition, the push-off frame runs right to the end of the 50mm square-section Hardox tines, ensuring the fork doesn't carry any grass back down the clamp.

Price for this heavy-duty version is about the £6,000 mark, although the lighter standard model comes in slightly cheaper.

Saphir clamp compactor

Heavy ring-press clamp compactors have become commonplace with many silage gangs across the UK and now they're starting to become a bit more clever. This one from German firm Saphir has a 1.2m fold-down press arm that can be used to roll the shoulders of the clamp.

A double-acting ram with gas accumulators means it can generate up to 900kg of downforce. In addition, the machine has a 700mm hydraulic side-shift function that means the rolling tractor is kept well away from the side of the heap. The unit itself weighs 3.25t empty, but plugs in the box section frame and roller mean it can be water ballasted to more than 4t.

The other key difference, according to UK importer Suffolk Farm Machinery, is that the press rings are kept narrow (20mm). With 225mm spacing, they cut down through the surface layers to consolidate at depth.

The only trouble is that all this bulk requires a tractor of at least 250hp up front – and there's an equally hefty price-tag to match, £12,500. For those without such big budgets or as much power on tap, a lighter version is available that comes in closer to £9,000.

Claas Torion loading shovels

Grassland UK provided the first working demo of Claas' new Liebherr-built Torion loading shovels. Two models were working on the clamp – the 18t 1812 and the 15t 1511.

The larger has a true lift capacity of 6t and 230 litres/min hydraulics while its smaller sibling can handle 5t and has 170-litres/min oil flow. Both run on 750/65R26 rubber, but that's where the similarities end.

The lighter machine employs a 167hp John Deere engine to drive a twin-pump Bosch Rexroth hydrostatic transmission and Dana Spicer axles while its bigger brother gets its muscle from Liebherr's own 195hp motor and has a hybrid mechanical-hydrostatic CVT drive much like a Fendt Vario, with ZF axles putting power to the ground. Claas says to expect prices to come in close to similarly specced JCB shovels.

Logosol sawmill

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Although not mainstream grassland tackle, this B1001 sawmill from Swedish firm Logosol attracted plenty of attention. Capable of dealing with logs up to 1m in diameter, it uses a 23hp V-twin Vanguard petrol engine to power a ripping band saw, turning tree trunks into usable timber.

At present only a static version is on offer but later this year a mobile version will be launched with electric loading and log turning functions powered by a rechargeable battery pack. For now the static version comes in at £7,995.

Huesker Silage Safe

A nifty new silage sheet system aims to take the hassle out of closing off a clamp and improve the quality of the forage inside.

Agritec Silage Safe from German firm Huesker is made up of a series of 2m-wide webbed sheets that are draped over the sides of the pit walls before filling starts. At the base of each of these there's a length of perforated pipe, which when connected together act as a drain for any rain water running down the sides of the clamp.

Once the sheets are in place, the standard silage sheeting is installed and filling begins. When the clamp is full the woven sheets are dragged over the top, before being pulled tight using a belt-and-ratchet system connected to steel pipes slotted into the fabric.

The ratchet itself has a long lever so the installer has enough leverage to really crank up the pressure.

According to Huesker, the system creates even pressure across the top of the clamp and ensures there are no air pockets. It's also considerably quicker than humping hundreds of tyres around, and allows the clamp to be quickly reopened to add another layer.

The sheets are stored in a crate that can be lifted up to the clamp on pallet tines and Huesker says they have a life span of at least 10 years.

Prices vary slightly depending on the quantity ordered, but on average it works out at £8.72 per sq m.

Maschio Rotaseeder

Kit options for getting a fresh grass crop into shallow, stony soils are fairly limited, but Maschio reckons it has hit the mark with its rotavator and seeder combination.

The two-part outfit is designed to stir up a thin, fluffy tilth in old leys or cereal stubbles ahead of the piggybacking air seeder and is a far quicker way of getting seed down than anything plough-based, according to UK importer Opico.

There are several Maschio rotavators, ranging in width from 2.1m to 3.1m and in power requirements from 60hp to 250hp.

Opico also suggests fitting either the Cobra rotor (extra vertical blades) or Condor rotor (aggressive steel spikes) to help break up hard ground.

On top is a standard air seeder with basic electronic calibration, variable-rate sowing and the ability to broadcast or band sow. A rear packer is included too, which improves seed-to-soil contact and breaks down any remaining clods.

The 2.8m wide Maschio SC280 rotavator with Condor blades, packer roller and air seeder costs £24,388.

Anderson RBM 2000 Pro trailer

Canadian outfit Anderson reckons it has solved the age-old quest to speed up silage bale collection by doing away with the telehandler or tractor loader.

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The 12m-long RBM Pro uses a clever claw to grab wrapped bales from the ground and hoist them on-board without tearing the film.

The arm sits stationary in relation to the ground as soon as a bale is detected to avoid scuffing the plastic, while the tractor and trailer continues to trundle steadily around the field. It's also able to swivel to collect bales that are laid on their sides.

Anderson reckons typical loading time is about 20secs per bale and the controls run through a Danfoss touchscreen in the tractor cab.

Maximum capacity is 20 bales, with two rows of seven topped by a single row of six, and the whole lot is unloaded by tilting the trailer rearwards and pushing them off with the headstock.

The trailers are sold through Lincolnshire contractor D Clifford & Sons and the asking price is about £47,000.

Krone BiG X 780

The thrum of the new BiG X 780 at full chat drew in the crowds to Krone's Grassland stand.

It is one of a trio of new-generation models – badged the 680, 780 and 880 – that were officially unveiled at Agritechnica in November to replace the 700, 770 and 850 .

They slot in behind the flagship BiG X 1100 and are powered by 16.16-litre V8 Liebherr engines with outputs ranging from 687hp to 898hp.

The updates were focused on operator comfort, so most of the internals remain the same.

That includes the six pre-compression rollers that help serve up a blockage-free crop flow and drum that comes in a 20-, 28- or 36-blade format. There's also a biogas drum with 40 or 48 knives for extra-fine chopping.

Elsewhere, an independent wishbone suspension arrangement has replaced the solid rear axle to improve handling and allow for tighter turning circles.

There's also a new armrest-mounted 12in touchscreen and the option of Krone's slightly wacky-looking Lift Cab that uses a scissor lift to hoist the cockpit 70cm upwards, providing a better view over tall maize crops and into silage trailers.

JOURNAL : Farmers Weekly

The process of mowing, raking and tedding was in focus at this year's Grassland event, with all the big names showing their take on the silage system.

Italian firm Abimac caught the eye with its novel front-mounted rotary rake, while Kuhn, Reiter and SIP were promoting the virtues of merger units over standard rotary rakes.

Film-on-film silage wrapping was also in the spotlight, with several firms now doing away with the traditional net base layer in order to improve silage quality.

See also: Driver's view: McHale Fusion 3+ round baler

Abimac Avantage

Grassland debutant Avimac was showing off a time-saving way of rowing up grass or straw ahead of the baler.

Its butterfly rig runs on the tractor's front linkage while the baler is towed behind, completing two passes in one and avoiding rowed-up crop getting soaked by a rain shower before the baler reaches it.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The kit is built in Turin, Italy, and comes to the UK via North Yorkshire farmer and contractor Simon Smith, who set up Abimac UK 18 months ago.

There are three models in the twin-rotor range that vary in weight from 1,250kg to 1,750kg, have power requirements of 110hp to 130hp, are all 5m long and run on a weight-bearing front wheel to help follow ground contours.

The smallest 6m model has nine arms per rotor and costs £16,500, while the largest works out to 8m, has 13 arms and costs £20,500.

Kuhn Merge Maxx 950

Merger machines are yet to take off in the UK, but Kuhn hopes its redesigned Merge Maxx 950 will spark some new interest in the concept.

Unlike the sweeping action of a rake, these implements pick the crop off the ground and shift it sideways on an elevator belt. The theory is that this prevents contamination from soil, stones and other unwanted detritus, as well as producing a more uniform swath.

One of the downsides has been the premium price, but Kuhn has simplified the design of its latest model, making it easier to build and, crucially, cheaper to buy.

With a list price of £65,356 it is indeed getting more competitive with some of the larger four-rotor rakes.

As for performance, the trailed Merge Maxx 950 can gather in a maximum width of 9.5m with its pair of pickup and merger belt units. These can be configured in several different ways, allowing it to produce windrows either in the centre of the machine, on the left and right sides or a combination of all three.

Each of the pickup units has a roller at the front to smooth crop flow, before the cam-track pickup flicks the material onto the rubber merger belts. The whole system is hydraulically driven via the machine's own pto-driven pump.

SIP mowers and merger

Slovenian manufacturer SIP has been making rapid progress in the UK mower market since debuting at last year's Grassland and Muck event in Stoneleigh.

It now offers a pretty big range that includes the front and rear combo in action at the show, as well as bigger butterfly triples.

The company was also demoing one of its mergers on the site. The front-mounted Air 300F is built under licence from Austrian company Reiter and uses many of the same components. However, the frame and hydro-pneumatic suspension system is an SIP design.

Like Reiter's own machine, it has a roller at the front that guides the crop to the flexible camless pickup. A finger rotor then flicks the crop onto the rubber conveyor belt, which can be set to deposit the material on the left or right side of the machine.

All components are hydraulically driven and it requires a minimum oil flow of 60 litres/min. Working width of the front-mounted machine is 2.95m and a larger 5m trailed will be available soon. This can work independently, or be teamed with the front unit.

The front-mounted 300F has a list price of about £20,000 and the rear unit will come in at about £55,000.

Case-IH RB545 Silage Pack

Case was one of several companies showing off a baling unit that uses plastic film rather than traditional net wrap.

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The company reckons this provides a better oxygen barrier to produce higher-quality silage, even when it's stored for a long time.

The fixed-chamber RB545 Silage Pack is also fresh from a redesign that has seen access to the film rolls improved, rotor cutter knives strengthened and wrapper table belts lengthened. The quarter-turn option has been tweaked too, allowing bales to be dropped perpendicular to any slope.

It will make a 1.25m bale, takes about 135hp to run and has a wrapping capacity of up to 50 bales an hour. Retail price is £74,439.

The Silage Pack was being towed by a Maxxum 145 Multicontroller, which was returning to work after its record-breaking performance at the German DLG testing station.

It notched the lowest specific fuel consumption ever recorded by a four-cylinder in the PowerMix test, which was more than 9% better than its nearest competitor (apart from sister firm New Holland, of course).

Key to the tractor's success, says Case, was the combination of 145hp, 4.5-litre FPT engine and new 24-speed Active Drive 8 transmission.

The gearbox was launched at last year's Agritechnica event and offers eight speeds in each of three ranges, sitting between the company's more basic 16-speed semi-powershift and the stepless setup of the CVX.

Kverneland butterfly mowers

Kverneland's latest high-spec mower combination comes in the form of the 3332FT front and 53100MT rear butterfly unit.

This setup has a maximum cutting width of 10.2m and comes with the firm's QuattroLink suspension system. This has a vertical working range of 700mm, which apparently helps maintain constant ground pressure over undulating terrain.

There is also the option of a Geomow full Isobus system with section control. This automatically lifts and lowers individual mowing units at the headlands and offers automatic adjustment of overlap too.

JD V451M baler

The most recent round of variable-chamber balers from John Deere have been treated to a few updates to improve their performance in different crop conditions.

These include a larger-diameter pick-up and one-piece in-line auger rotor for improved intake and crop flow. For quicker clearance of blockages, there is also a full-width drop floor.

Elsewhere, the V400 range has been given a general beefing up, with a heavier-duty frame, bigger drive chains and larger roller bearings. Ultra-tough Hardox steel tines have also been used in the rotor.

The bale density system has been reworked, too, and they come with the option of net-only or net and twine wrapping.

Kuhn FBP3135 Intelliwrap baler with film wrap

For the 2018 season, Kuhn will be offering film binding on its FBP3135 Intelliwrap combination baler.

Unlike some other machines that bind the bale with a separate roll of full mantle film, the Kuhn system uses two rolls of standard 750mm bale wrap.

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This approach is apparently cheaper and faster, as the narrower film feeds into the chamber more quickly. Tying or binding is done with four layers, before the bale drops onto the 3D wrapping table.

At the moment Kuhn recommends applying the standard six layers of film, but it says there is potential to drop this to five in some situations.

The FBP3135 baler itself has a list price of £67,722 and the film wrapping option adds £6,000.

Maxam mower

Fresh off the boat from New Zealand, this Maxam mower has a few unusual tricks up its sleeve.

Two- and four-drum versions are available and have wilter rotors that catch the grass as it comes off the blades, spreading it out to the full working width of the machine.

Although offset versions are available, Maxam says its in-line models are the most popular because of their simplicity. Running down the grass you're about to cut is no issue, according to the company, as cranked blades and slightly angled drums lift laid crop with little issue – looking at the demo plot of importer Suffolk Farm Machinery, that certainly seemed to be the case.

All the elements are entirely belt and pulley driven, making for a very low-maintenance, quiet-running gearbox-free setup. Power requirement for the 3.3m model is 90hp while the two-drum 2.5m version requires just 70hp. Prices start from £7,500.

Pottinger Impress baler-wrapper

Pottinger has only been building round balers for four years, but already those that are out there are gaining a reputation for performance, according to the company.

Both fixed- and variable-chamber versions of the Impress combi are available with a 32-knife chopper unit that will reduce fibre lengths to 36mm.

A novel wrapper arrangement with underslung – rather than overhead – satellite arms is used to apply the film. With a slew ring underneath the table, there is said to be a lot less stress placed on the whole machine, particularly when travelling at pace across bumpy ground.

Being based in the Alps, the other area the company has concentrated on is bale transfer on slopes. Between the bale chamber and the wrapper is a receiver cradle that slides on rails between the two. Initially it stabilises the bale and then travels rearwards and upwards to place it on the forward cranked table. Once in position, the wrapper levels out and the film arms start to spin.

This approach is said to do away with the issues of getting bales from the chamber to the wrapper on both uphill and downhill slopes.

Prices are yet to be set, but expect the Impress combi to come in at about a similar figure to the obvious competition. Two different spec levels are available with virtually every function automated and the company is currently working on a netwrap free film-on-film system.

Vicon 732 mower-conditioner

Vicon's mounted mower-conditioners have had a revamp that sees a return to race car-type suspension and a clever parking system that makes it possible to store the machines upright.

Both 3.2m and 3.6m models are now suspended from the centre of the bed and employ a four-link parallelogram frame with pivoting ball-ends in each tie-rod to provide 3D contouring in all planes.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

As ever the mowers are equipped with Vicon's trademark tri-blade discs, each of which is now designed to shear a shaft should an obstacle be encountered, avoiding costly damage to the gears.

Three flip-down legs with gas struts mean it is possible to unhitch the mower in a matter of seconds, leaving it in its upright folded position.

JOURNAL : Farmers Weekly

Weaning can be a stressful experience for a cow and calf, breaking the maternal-offspring bond and removing milk from the calf's diet.

However, there are strategies beef producers can take to reduce the effect on performance.

Simon Marsh, principal lecturer and cattle specialist at Harper Adams University, says the first rule of weaning is that there is no optimum age – some calves can be weaned at five months, others as late as 10 months.

See also: Expert advice on creep feeding calves

"Total flexibility is needed. Age at weaning needs to fit into your own system and it really depends on cow condition," he explains.

When to wean

Reducing stress

Top weaning tips

Case study

When to wean

If the cow is lean, weaning early will allow her time to recover and gain condition. If the cow is overconditioned, weaning can be left until later.

Mr Marsh says the ideal is condition score 3-3.5 at housing and 2.5 at calving, so age at weaning should be dictated by those parameters.

"If it has been a poor grass-growing year, you might want to wean earlier because it takes the pressure off the cow."

Removing a cow's lactation requirement earlier will also allow her to carry more condition into autumn and winter, reducing cow maintenance cost, because she will need less winter supplementation.

If increased body condition is maintained through winter calving and breeding, this could have a positive effect on conception rates.

Weaning early: effect on calf and how to reduce stress

For the calf, weaning stress can result in reduced liveweight gain, a marked increase in physical activity, including pacing and calling, and a reduction in the time spent feeding during the post-weaning period.

Abrupt weaning will compound this. Therefore, it is worth considering pre-weaning tactics such as fence line separation or anti-suckling devices such as nose flaps, says Mr Marsh.

Fence line weaning

For fence line weaning, separate cows and calves on either side of a fence for four days or more before separating totally.

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"This allows the cows and calves to still see, hear and smell one another and where possible have nose-to-nose contact," says Mr Marsh.

Nose flaps

A recent study carried out by Harper Adams University and funded by AHDB Beef & Lamb showed at 11 days after weaning, calves fitted with nose flaps to prevent them suckling their dam had a greater liveweight gain compared with the abruptly weaned calves.

"Despite not being significant, this suggests a reduced growth check at weaning compared with the abrupt weaning method," adds Mr Marsh.

11 top tips for weaning

1. Avoid housing and weaning calves at the same time to minimise the number of stressors they are exposed to at any one time. Instead wean two to three weeks before housing.

2. Introduce creep a minimum of four weeks before housing because a calf's ability to convert feed is at its highest at that point – every 120kg of feed is converted into 40kg of liveweight gain.

It also means that at weaning the calf will be used to hard feed. The only exception might be native breed heifers because they will lay down fat and they also finish later than other breeds.

3. Do not dehorn or castrate a month before or after weaning to minimise stress.

4. Graze calves purchased weaned at market for two to three weeks before housing in a well-fenced and sheltered field.

5. Vaccinate against pneumonia and clostridial diseases before housing.

6. Clip a 30cm wide strip from the calf's back to prevent sweating.

7. Treat for internal and external parasites with a clear anthelmintic and treat for fluke if needed.

8. House in well ventilated sheds with plenty of straw and avoid a dusty environment.

9. Stocking density should be double the normal space requirements – 2-3s square metres per 100kg of liveweight instead of the normal 1-1.5.

10. Introduce the store or finisher diets gradually and feed plenty of good quality forage initially.

Start supplementary feeding with the creep feed diet then slowly change to the winter ration if the formulation is different

11. Avoid mixing groups of calves because of the risk of disease spread if they come from different disease backgrounds.

Case study: Robert Hartley, Holdgate Hall Farm, Much Wenlock

Farm facts

Spring-calving herd of 140 Saler cross Simmental suckler cows

Calve from February onwards

Uses British Blue bulls with estimated breeding values in the top 1% for the breed

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Weaning up to three weeks after housing when calves have adapted to their new environment curtails growth checks in the cattle Robert Hartley takes through to finishing.

Although daily liveweight gains (DLWG) are slow in the week Mr Hartley removes calves from their mothers, performance reverts within a month, at which point bulls are recording DLWG of 2.5kg.

Mr Hartley, who farms in partnership with his son, Peter, puts this down to weaning at a point when calves are well adjusted to their new environment.

Consistency in their diet is important too, he says.

Creep feeding

Cows and calves are turned out to grass after calving from mid- to the end of April.

Calves are first given creep at grass in metal creep feeders from three months old. They also receive this ration in the first few weeks at housing.

"Not all of them take it, but it is there if they want it," says Mr Hartley.

Calves are at grass until the end of October, when they are loose housed with their mothers. At that point, they are wormed and vaccinated for blackleg.

"They stay with their mothers for two to three weeks while still having the creep, as well as silage," Mr Hartley explains.

"We weigh every month and at weaning. We noticed the growth weights drop a bit in the first week, but it doesn't take long for them to get back on track," says Mr Hartley.

At weaning, bulls average 330kg and heifers 300kg, 50% or more of cow liveweight.

He has used nose flaps in the past but didn't rate them, because they came off in more than one-third of the calves.

"It was probably because they were in and out of the feeders," he says. "We did notice that those that did retain them were quieter at weaning, so if we sold our cattle as stores, we might have given them another go.

"As it is, we sell at about 14 months, so the growth check isn't an issue by then."

After weaning, bulls and heifers are separated and receive ad-lib rations of home-grown barley, soya, molasses and straw.

Bulls finish at 600kg and heifers at 500kg, with all cattle sold at Bridgnorth market.

JOURNAL : Farmers Weekly

The annual Farmplanner competition has been won by a team of five students from Harper Adams university.

The contest, for students attending an agricultural university or college, provides a real-life farm business case study which is facing a challenge, and they have to propose a solution.

Final-year students Daniel Liddell, Harry Dunford, Charlie Cheyney, Paul Brown and Michael Wood won the judging panel over with a confident presentation and a detailed brief, edging out competition from Bishop Burton college.

See also: How setting up a company can help succession and diversification

A team from Newcastle had also been shortlisted but withdrew from the competition at the last minute.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

For John and Cathy Charles-Jones of Woodborough Park farm, near Nottingham, their issue is how to take a step back from the successful arable farm they have built up over the past 14 years while still driving the business forward.

The couple, who are thinking about retiring in the next five to 10 years, have two children but neither is interested in coming home to farm.

They also asked entrants to suggest how they could mitigate a likely reduction in subsidy payments, prepare for a potential glyphosate ban and diversify their redundant farm buildings.

Woodborough Park farm facts

Size: 244ha

Current cropping: Winter wheat, winter oilseed rape, spring beans, spring wheat/barley, permanent pasture

Soil type: Silty clay loam

Current diversifications: Wind turbine, ground and roof-mounted solar panels

The Harper team proposed increasing the amount of labour employed from the current setup of a part-time self-employed person to a full-time employee.

Starting in an assistant farm manager role, it was hoped that the successful candidate would graduate in time to running the business day-to-day to allow Mr and Mrs Charles-Jones to take a step back.

Year-round work and additional income to justify the extra cost would be provided by adding a beef finishing enterprise.

Sufficient grazing for the cattle would be provided by adding short-term grass leys into the arable rotation alongside the existing permanent pasture.

The grass would also help with weed control, particularly to suppress the blackgrass that has caused some issues on the farm's silty soils.

They also proposed generating additional income by transforming the farm's traditional buildings into either holiday lets, office lets or self-storage.

This would take advantage of the farm's situation in a high population area, being situated about 30 minutes away from Nottingham city centre and close to several other towns and villages.

What is the Farmplanner competition?

Run by the Institute of Agricultural Management, and now in its 25th year, the Farmplanner competition invites teams of students studying agricultural courses to analyse a farm with a business problem that needs solving.

They are given a presentation from the hosts and business and banking professionals, and then have to submit a carefully costed business plan.

A shortlist of three teams is then invited back to the farm to present their ideas and take questions from a panel of professionals.

JOURNAL : Farmers Weekly

Weight has been paying at marts this spring as sluggish lamb production has left some farms having to sell lighter lambs (37-38kg) with throughputs 30-40% back on the year and prices matching the year.

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Scorching haymaking weather and a European holiday led to both reduced supply and demand and a slide in trade over the past week, with the national SQQ down to 216p/kg on Friday 22 June and 212.19p/kg on Monday 25 June.

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Hereford

A big premium for weight has been reported at Hereford in June, where Greg Christopher is seeing 41kg lambs make 225p-230p/kg but heavier 43kg-plus lambs make 240-250p/kg.

Numbers are tight, with new-season lamb throughputs back 500 to 1,000 head a week, effectively leaving supply three to four weeks behind last year.

"I would say weight will be dear for a month or so. It will pay to get lambs to 42-43kg, I don't see the heavy lambs slipping too much," Mr Christopher told Farmers Weekly.

Heavy (45.6kg-52kg) lambs hit 245.9p/kg on 20 June, as 2,164 lambs averaged at 233p/kg and 2047 lambs hit an SQQ of 232.4p/kg.

North West Auctions

Numbers are back 10-15% each week in the North West, with many vendors having half as many lambs to sell on a weekly basis from a year ago.

Monday's sale at Lancaster (25 June) saw 10% fewer lambs on the week (517) due to haymaking weather and an average 9p/kg back on the week at 221p/kg.

But numbers were down for a variety of reasons, including the tough spring leading to higher mortality and slower weight gain.

"Dairy farms getting out of sheep to concentrate on dairy has seen numbers back in the Lancaster area," said Ian Atkinson of North West Auctions. "Meanwhile there are several early lambers who have stopped lambing earlier because they felt it wasn't being rewarded highly enough. This year it would have been."

He stressed the important thing for vendors to remember was that lambs should be finished properly. "There is particularly strong demand for lambs at 43kg and above but some farmers need the lambs away in good time and at lighter weights."

Stirling United Auctions

Numbers are back 30% on the year, although 2017 was an exceptionally good lambing and spring for growing lambs, said Peter Wood at United Auctions.

He stressed that lamb supplies were only slightly behind a typical year, with numbers close to the 1,000-1,500 mark which continues through the peak of the summer.

Yardings have been about the 800-900-head mark, with a total of 784 NSLs reported last Thursday (21 June) at an average of 227.8p/kg (SQQ of 225.7p/kg).

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"Late February and early March-born lambs have been slower. Ewes would have been milking less at the time and they would have got the biggest growth stunt," said Mr Wood. "We could end up with a lot of lambs coming ready at once."

JOURNAL : Farmers Weekly

Heifers reigned supreme at the Beef Expo at Shrewsbury Market yesterday (25 May), scooping both interbreed titles and the silverware in the baby beef section.

Taking the day's top honours and making it their second interbreed title at Beef Expo was the Lyon family from Bourne, Lincolnshire, with their 16-month-old British Blue cross Ayanna, which weighed 498kg.

She won the red rosette earlier in the day in the heifer championship. She was purchased privately from Messrs Reed, Knarr Farm, Cumbria, for an undisclosed figure.

No stranger to the show ring, she won first place at Countryside Live as a calf and claimed the championships at Newark and Woodhall Spa Country Shows earlier this month. She heads to Herts County Show next (26-27 May).

See also: How and why Shropshire beef farmer is converting to organic

Reserve interbreed was awarded to Phil and Sharon Sellers, Thorpe Tilney, Lincoln, with their 13-month-old Limousin heifer She's a Diva, weighing 554kg.

Bred by Guto Lewis, Welshpool, she was originally purchased by Wendy Morgan alongside her dam, who sold her to the Sellers last year after Diva's success in the baby beef section at the English Winter Fair.

Sired by Lodge Hamlet, she is out of a pure Limousin cow. Diva won commercial champion and reserve interbreed at Woodhall Spa County Show earlier this month. She heads to Lincolnshire Show later this month (20-21 June).

Commenting on his placings, judge Neil Slack, who keeps 15 commercial cows in Penrith, Cumbria, said Ayanna really stood out on the day: "She had good lines, good legs, no waste at all and makes a bonny picture. But there wasn't a lot between them."

Baby beef results

In the baby beef championship, it was heifers again that were pick of the day with judge Michael Alford, Foxhill Farm, Cullompton, Devon.

He tapped out nine-month-old Limousin cross Scarlet as his champion. Bred by Berwyn Hughes, Lampeter, she was purchased privately by Morgan and Jones, Llandovery, Carmarthenshire.

Shown by 27-year-old Sam Jones, she tipped the scales at 350kg and heads to Shropshire County today (26 May) before competing at the Royal Welsh later this summer.

Phil and Sharon Sellers were back in the winnings, taking reserve spot with their seven-month-old Limousin cross Little Gem. Bred by Phil Jones, Powys, she was purchased at Ruthin for £3,250.

Shown by Phil's son, 13-year-old Ryan Jones, she is out of Limousin cross Blue cow and is sired by an Irish Limousin bull. She weighed in at 323kg and will go home to rest before returning to compete on the Christmas show circuit later this year.

Steer championship

Taking the silverware in the steer championship were Melanie and Michael Alford with their three-quarter Limousin steer No Likey from Cullompton, Devon.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The 11-month-old was purchased at Brecon Show potential sale for £2,400 from DE and G Davies, Garth, and weighed in at 520kg. He next heads to the Royal Cornwall show.

Runner-up on his first outing was the home-bred June 2017-born Marley from Wilkinson and Marwood, Leyburn, North Yorkshire.

Sired by Waindale UFO, he is out of a British Blue cow and weighed 443kg. Shown by 19-year-old Beth Wilkinson, he will now be exhibited at Northumberland Show (28 May) and the Great Yorkshire in July.

South Devon performance championships

Winning the South Devon breed championship on his first outing was the home-bred 16-month-old bull Al X Rufford SAS Quest from RW and SM Bostelmann, Eccleshall, Staffordshire.

Sired by Rufford SAS Dillon, he is out of Al Z Rufford Erica 25 Ex90. He has already been sold privately, but will be shown at the Shropshire (25 May) and Suffolk (30-31 May) before heading to his new owner in Cornwall.

The yearling heifer Z Cilgwrrwg Cariad stood reserve to him. Bred and exhibited by Richard Hartshorn, Telford, Shropshire, she is sired by Z Eytton Trusty 3 and comes from six generations of home-bred dams, hers being Cilgwrrwg Sas Xanthippe VG87.

JOURNAL : Farmers Weekly

Auctioneers are warning there is no prospect of straw prices reverting to normal levels for the rest of 2018 as carryover stocks are virtually non-existent and standing crops in some areas are looking short and thin.

As decision time approaches for growers considering whether to chop or bale early cereal crops, prices per tonne of barley straw are forecast to be £90-100/t, with wheat about £70-80/t.

This is some £20/t higher than where the price started last season, said Wright Marshall auctioneer Andrew Wallace, but well below the £130/t some loads were trading at by the end of the season.

See also: Six alternative bedding options to straw compared

With agronomists warning of short, thin-looking crops in the ground, the Cheshire-based auctioneer said he predicts a buoyant trade, noting some merchants in his region are increasing their storage capacity in anticipation of firm prices.

The price rises cost some farmers an additional £70 a cow last winter, according to a report published in April by SAC Consulting, leading to a potential 19% decline in beef enterprise gross margins.

But livestock farmers hoping growers in the arable heartlands of East Anglia will moderate the trade by sending more straw west are likely to be disappointed.

Committed choppers

John Hartwright, director at consultancy firm Laurence Gould, said while the higher prices would more than compensate farmers for the nutrient value lost by not incorporating, many of his clients are committed to chopping straw.

"They are very aware of the delays waiting for a baler can create," he explained, saying that many are anxious to immediately start drilling oilseed rape or controlling blackgrass.

For those in the East who do regularly bale, many are supplying the four straw-burning power stations in the region on long-term contracts, said Mr Hartwright.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

They take in excess of 900,000t/year at a price of about £40/t, depending on moisture content, some 9% of the total amount of straw used in the UK.

This scale of usage has drawn sharp criticism from the National Pig Association which recently warned that demand from power plants is contributing to the severe strain on straw supplies and is threatening the shift towards high-welfare straw-based systems.

They said some producers in the north of the country are unable to take in stock as they cannot source bedding, while other finishers are paying up to £150/tonne, almost the same as the cost of the grain.

More supply this year likely

Adrian Cannon, rural partner at Gloucestershire-based auctioneers Tayler and Fletcher, said he is forecasting higher straw prices than two years ago but does not expect them to hit the heights of last year when supply was lower than normal due to the wet **harvest**.

Early planted winter crops are looking well in his region he said which should also mean the standing crop at **harvest** is likely to be up on the year.

Growers minded to bale should therefore have more to supply, but he said others regarded the hassle as not being worth it at any price.

Weather dependent

Donald Dunbar, senior agricultural consultant at SAC consulting, said that Scottish prices would be very dependent on the weather at **harvest**, with many growers only contemplating baling if there was a prolonged dry spell preventing wet swaths lingering in fields.

With virtually no carryover from last season, rain this summer would be likely to send costs soaring again as long-distance haulage from England took its toll.

His advice for straw users is therefore to talk to suppliers early and get a price agreed for their straw requirement for the whole season rather than buy per load through the winter when prices could be at their highest.

How can livestock growers cut bedding costs?

Unless they are in a mixed farming region and can set up a mutually beneficial straw-for-muck agreement with an arable farm, livestock farmers often regard themselves as price takers on the straw market.

But the extreme prices of last season are prompting some livestock farmers to look at other options for bedding after tight supplies and a long winter sent prices soaring to more than £130/t.

Donald Dunbar, senior agricultural consultant with SAC consulting, said he is seeing an increased proportion of new cattle sheds in the Scottish Borders having slatted floors.

This style of shed has in the past had an image of being less welfare-friendly, but he said the addition of rubber mats had improved cow comfort and were proving popular among farmers.

Others in the area have also been experimenting with woodchip aggregates which are a by-product of supply chain to wood-fired power stations.

The price of these stands at about £400 for an artic load, Mr Dunbar said, with farmers using them either under straw to form the base for the bed or as a full alternative.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Mint condition John Deere 10-series tractors are now fetching close to their as-new price, but that hasn't deterred one young contractor from running a high-houred 6610 on the frontline of his fledgling business. Edd Mowbray caught up with him on his Devon farm.

When Marcus Tucker spotted a stunning John Deere 6610 that became available at a local dealer, he offered everything he could lay his hands on to make sure it joined his small fleet of contracting machinery.

Alongside his 1,000 hours a year of contract farming, Mr Tucker has a metal fabrication business that builds anything from gates to grain trailers and the front weights for the 6610 parked at his Talaton, Devon base.

He tells Farmers Weekly why he picked it and what he uses it for.

Where did you buy it from?

I knew what I wanted ever since I started saving and, after biding my time and letting some less tidy examples go, this one came up for sale at local dealer Smallridge Brothers in Barnstaple.

I drove up there and paid £17,500 for it.

It had one previous owner when I bought it at just under 10,000 hours. It has now clocked 13,750 so I've done the best part of 4,000 hours in the seat.

It's pretty much a top spec model as well. I think the only extras it doesn't have are a sunroof and creeper box, although I fitted the front linkage in 2014 to make switching weight blocks easier and give me the option of using a swath roller when baling.

See also: Ultimate guide to buying a tractor 2018

What are its main tasks?

It spends 400 hours a year hedge cutting with a McConnel 6500T, which is mounted to the axle of the tractor. I've also got a Pottinger rake, Viccon mower and a Kuhn baler, with which I produce around 7,000 bales per year, and do some work for a local contractor, taking annual workload to around 1,000 hours.

This has slowly crept up over the past few years as I have taken on more work. I don't advertise so it's just word of mouth and I work within a 10-mile radius from my base.

I charge one way travel on each job, which isn't to everyone's taste but I'm a small business and when the wheels are turning I need to be charging.

How well is it looked after?

Religiously – I'm a bit of a perfectionist when it comes to maintenance.

I'm the only driver so if something goes wrong or gets broken, I've only got myself to blame. But on the flip side, at least I know about it straight away and it will get fixed immediately.

If you start to let the little things get away, the list grows and becomes unmanageable.

I blow out the radiators and cab every evening when I come home and give all the main points a squirt of grease. It usually gets cleaned around once a week.

Engine oil is dropped out every 250 hours along with the front hubs, while the back end, filters and front axle oil is changed every 1,000 hours.

Running old kit means I have to be on top of my servicing regime and it has just had a new set of boots, too.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The reason I went for this series of tractor is its simplicity. It means I can fix almost anything on it without the help of a laptop or mechanic costing extra.

I could sell this and buy a newer model, but my reliance on others would be greater.

Is the cab starting to show its age?

The cab is kept pretty clean and everything has its place. I don't wear work boots in the cab as I have a carpet in there, which does mean I'm quite particular about footwear.

I had to replace the seat a few years ago as the previous 11,000 hours had taken their toll.

I spotted a brand new genuine John Deere seat on eBay from a dealer who was having a clear-out. I snapped it up for £750 and it came with the whole assembly.

Have you done much to it?

I've made covers for the diesel tank and bonnet when hedge cutting. I learnt the hard way when a piece of wire speared a hole in the side of the tank in my early days and I ended up needing a replacement tank.

I've wired in a Greenstar screen to give me a light bar to keep my lines straight, too. The main benefit is it records field sizes so I can charge customers exactly for the work I've done.

Older tractors of this size lack tool storage and, as I like my cab to be clean, I'd rather not have tools and flails rattling around my feet.

I bought a Stanley toolbox and welded a sliding bracket behind the front wheel under the exhaust stack. I can store all the tools here and it tucks away when I don't need it.

The wheels get a refurb every couple of years as you don't realise how much a yellow wheel loses its shine until you give it a fresh coat, especially after a lot of hedge cutting.

Is it reliable?

I've had a few little niggles, but nothing major. The injector pump went soon after I got it and luckily it was fixed under warranty.

There was also a crack in the rear spool block that I had to get sorted, but these have been the only two mechanical issues.

I replaced both rear mudguards as the outside metal had started to rust through. The new ones are half plastic but look identical, so they should last longer.

I'm starting to notice a slight drag in the gearbox from start-up, which means I have to select reverse first and roll back a couple of inches before I get the forward gear I want.

It only usually happens when it's cold but it is a problem that wasn't there when I bought it.

My view is that I don't pay hire charges or monthly payment plans so if a big repair is needed then I'll pay it, as it's the trade-off with running older kit.

Will you ever sell it?

No. It's a tractor that I'll keep forever and will probably carry me to my funeral. I've been offered double what I paid for it, I've even had a written cheque put into my hand but I have refused every time.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

For me it's more than a tractor as it's been the machine that has allowed my business to expand and take on more work.

My dream second tractor would be a John Deere 7810 in similar condition and spec but these are becoming much rarer and every time a good example comes up at a dealer, they are snapped up instantly.

John Deere 6610

Engine – JD 6.8-litre six-cylinder

Transmission – Auto quad

Torque – 486Nm @ 1,300rpm

Power – 114hp

Top speed – 50kph

Spool valves – 3

Tyres – BKT

PTO – three-speed

Hours – 13,750

Price paid – £17,500 (2013)

How much is a JD 6610 fetching now?

JD 6610 with Stoll front loader

Year – 1999

Hours – 9,625

Transmission - Powerquad

Tyres – Rears 80%, Front 30%

Condition – Very good

Price – £18,995

Where – JF Engineering, based near Milton Keynes, Bedfordshire

JD 6610 SE

Year – 2000

Hours – 10,300

Transmission – Powerquad

Tyres – Rears 40%, Tyres 20%

Condition – Average and low spec

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Price – £19,375

Where – Farmers Weekly classifieds, based in Germany

JOURNAL : Farmers Weekly

After featuring a succession of high-mileage Japanese 4x4s, we've been presented with a slightly surprising new chart topper – a 1990s Land Rover Discovery.

To anyone who's owned one of these vehicles, it may seem a little far-fetched that an example has managed to surpass the half-a-million-mile mark.

As our regular columnist and seasoned Land Rover owner Stephen Carr recently pointed out: "I fear the bar has been set too high for me – the one I drive most of the time has started to push alarming quantities of oil out of the breather, despite several visits to the garage."

But Northamptonshire-based self-employed contractor Martin Rainbow has managed to buck the reliability trend and eke a staggering, and relatively trouble-free, 540,000 miles from his 1996 model.

Original running gear

Martin Rainbow's Land Rover Discovery

Year 1996

Purchased 1998

Purchase mileage 96,000 miles

Mileage now 540,000

Engine 2.5-litre four-cylinder Land Rover 300Tdi

Power 111hp

Torque 263Nm

Transmission R380 five-speed manual

Price paid £13,500

As the rules of this series dictate, this Solihull-built truck still has its original engine and most other major parts are its first too, including the five-speed manual transmission and the starter motor.

Mr Rainbow is the Discovery's second owner, having bought it when it was just 18 months old and on an already high 93,000 miles.

"I paid £13,500 for it, which was a lot for me at the time," he says. "I then had plenty of sleepless nights wondering if I'd done the right thing."

But since then he's clocked up about 20,000 miles a year and every year it goes through its MOT with very little bother.

"When it went in for its first service the chap said: 'There are good and bad ones of these – yours looks like its going to be a good 'un'."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

To keep it mechanically sound Mr Rainbow has continued to carry out a full service every 6,000 to 8,000 miles, including all oils and filters.

For most of its early life, this involved filling the block with straight mineral oil, but now he's upgraded to semi-synthetic 15W40. "When it's running on this it doesn't burn a drop," he says.

Long-lasting engine

The engine fitted is Land Rover's 2.5-litre 300Tdi turbo diesel that, when new, developed 111bhp and 263Nm torque.

Apart from regular servicing, this has had just one core plug replaced and it is still on its original head gasket. The tappets were adjusted about 12 years ago and they're still OK now.

One possible reason for the engine's longevity is the fact that Mr Rainbow gives it a regular dose of Millers diesel additive. This apparently helps lubricate the fuel system and the engine in general.

He uses regular pump diesel and during general, mixed driving an 80-litre tank will get him about 600 miles (about 34mpg). However, on a long, cruisy run this will nudge up to almost 40mpg.

Tougher transmission

Unlike earlier 200 Tdis that were known for gearbox problems, this 300 model had a beefed-up version that's still going strong.

There's apparently just a slight crunch when going into second as, understandably, the synchro is slightly worn.

The transducer that controls the speedometer also stopped working a few years ago and it took a month or two for him to get around to fixing it. As a result the odometer reads only 537,000.

Other mechanical work has included three clutches – the original lasted for 370,000 miles, but the second was much shorter as the garage forgot to fit the version with a heavy-duty selector fork.

Show us yours

If you've got a high-mileage 4 --4 that's given you sterling service and is still on its original engine, we'd like to hear from you.

The trucks above are clearly tough to beat, so we'd be interested to see vehicles with 350,000 miles or more on the clock. Thankfully we're no longer eagerly awaiting news of a vehicle from the Land Rover stable that's made it into the high-mileage club.

If you'd like to be featured, email a few details to James Andrews

It has also had a pair of rear brake callipers, an alternator, one radiator and new track rod ends.

But the rest of the mechanicals are original, including the steering box, front suspension turrets and the exhaust – although this has had some welding.

But it's the bodywork that has required most of the attention. Over the years it's had two sets of sills, front inner wing sections, repairs to the rear inner wings and a new boot floor.

Mr Rainbow carried out all of these repairs himself using a mix of pre-made repair panels and some he fabricated himself.

The original set of replacement sills came from Land Rover, but these were expensive and rotted out quickly.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The next set were galvanised versions from an independent supplier, which are still solid.

Some of the electrics have also had attention, particularly the ECU. "I've learnt my way around it over the years and I can usually pinpoint any problems pretty quickly," he says. "They're not expensive to fix either."

Despite the mileage, the truck is still Mr Rainbow's daily driver and he has no plans to change it or reduce its workload. "It's a working vehicle and although I look after it mechanically it doesn't get pampered," he says.

"After all this time it's got quite a bit of sentimental value and I still enjoy driving it."

Other high-milers

Here's the league table of mile-munching motors we've featured in the past:

JOURNAL : Farmers Weekly

Sheep farmers are being urged to build positive relations with dog owners to highlight the devastating impact of sheep worrying.

The National Sheep Association (NSA) says farmers should target the many agricultural events and shows taking place this summer to reach out to the public and promote responsible dog ownership.

The serious problem of livestock worrying is well recognised by farmers and the wider industry, but more work must be done with the dog-owning public to stop attacks which are "completely avoidable".

See also: Special Investigation shows police are failing to crack down on sheep worrying

In particular, the NSA says there must be improved behaviour from the minority of dog walkers that "allow their animals to run free around livestock, often with devastating results".

NSA spokesman Katie James said: "Browbeating the public and portraying negative messages about shooting dogs is not an effective message.

"We want to share a positive message about dog owners enjoying the beautiful landscapes in Britain, which are created by the hard work of sheep farmers, and to do so responsibly and consider the impact an attack can have on farmers business and livelihood."

For several years, the NSA has collected data and opinions on sheep worrying attacks to gain an insight into its severity and consequences.

Financial and emotional cost

NSA surveys have highlighted the financial and emotional cost of sheep worrying on farmers. For example, 85% of sheep farmers who have suffered sheep worrying attacks experience feelings of stress and anxiety, leading to almost a quarter of those affected subsequently considering giving up sheep farming.

"This personal angle is a really important one to share when talking about attacks on sheep, as dog owners often think their pets are 'just playing' and do not understand the wider picture," added Mrs James.

The NSA will be spreading the messages of improving relations with the wider public and the importance of reporting attacks at shows and events throughout the summer.

Meanwhile, it wants farmers to report all incidents of livestock worrying to the police to help build an accurate picture of the true scale of the problem.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Oilseed rape growers now have a high-yielding option that offers resistance to the turnip yellows virus, which can reduce yields by up to 30%.

Architect is the only variety on the current AHDB Recommended List that has resistance to the virus. It replaces Amalie, which was some 10% behind the top yielder for gross output on the previous year's list.

See also: What the 5 new sugar beet varieties offer

David Bouch, seeds manager at Hutchinsons, believes if a farmer is growing hybrids or a mix of hybrid and conventional types, Architect should be one to consider as part of the variety mix.

"It can help with risk management and is the only one on the list offering turnip yellows resistance. Also, it is only 2-3% behind the mainstream varieties on yield," he says.

The Limagrain variety is the result of the company's German breeding programme, which has a good pedigree for turnip yellows virus resistance. It has nine varieties at the moment, plus more in the pipeline.

Aphids

Turnip yellows virus is spread by peach potato aphids and monitoring last year found high levels of infection, with some sites showing 100% of aphids were carrying the virus.

Insecticides can be used to control the disease; however, getting the timing right can be difficult, as it varies year to year, says John Challans, seed specialist at Nickerson Seeds.

"If you spray a crop and it happens to be the tail end of a peak, they can come in again to infect the crop. The spray is only effective for 10 days, so it is difficult to hit migration of aphids," he explains.

"So by the time you see aphids, it [the disease] is already there and it is too late."

Mr Bouch believes farmers can use Architect to help manage risk, acting as an insurance in a high disease year.

"By growing one to two fields of the variety, farmers don't need to worry about the disease across this area," he says.

Other benefits

It is not just about turnip yellows; the variety brings other agronomic benefits including strong vigour and pod shatter resistance.

Wolfgang Lueders, European oilseed rape product manager at Limagrain, highlights its strong vigour.

"This allows good establishment and restart of growth in the following spring, even under unfavourable conditions in the field," he says.

Mr Bouch sees the value of pod shatter resistance, offering some protection against losses during summer storms. "This is becoming more and more important," he says. "I have seen empty pods in crops without pod shatter resistance after a storm, while in a variety with [resistance], the pods were largely intact."

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Weaknesses

Mr Bouch says one minor quibble is Architect's stem canker disease rating of five, which is a little low – ideally he would like to see a rating of at least 6.

He also points to its performance in the north with a gross output at 99%, of control, which is a little behind the top yielder. Therefore, he believes it is more suited for growing south of the Humber.

So what are the yield benefits? Mr Challans highlights European trials carried out in 2015 and 2016 showing that yields increase as turnip yellows virus levels rise.

The variety delivered an 11% yield advantage at sites with very high infection levels.

He says this equates to 0.5t/ha in a high-disease pressure situation. Pod shatter resistance brings another 0.4t/ha in a high-risk situation, adding up to nearly 1t of extra yield.

Second breeder plans to introduce turnip yellows virus resistance

Resistance to turnip yellows virus is also set to become a key feature of varieties from fellow breeder DSV, with a candidate up for recommendation later this year.

Temptation could be the first UK variety from DSV to carry full resistance to the virus, says Sarah Hawthorn of DSV UK.

“Working with our colleagues in Germany, we’re confident that virtually all new DSV varieties will carry turnip yellows virus resistance, with trials across Europe showing very impressive results,” she says.

The breeder says Temptation has strong autumn vigour, which makes it suitable for medium-late drilling.

It has a disease rating of 6 for light leaf spot and 5 for stem canker and in 2017 was ranked number one in France.

JOURNAL : Farmers Weekly

A sheep race scrapped after farm owners received threats from animal rights activists is to return this weekend after vets gave it the all clear.

Hoo Farm in Preston Upon the Weald, Shropshire had been entertaining families for nearly 30 years with its bank holiday sheep-racing tradition.

Organisers were forced to cancel the event at Easter after being targeted by activists and vegans, who branded the event “cruel” and “inhumane”.

See also: Easter sheep run cancelled after vegan threats

Owner Will Dorrell, 27, said he scrapped the Sheep Gold Cup and the Sheep Grand National races after staff received verbal and physical threats.

More than 50,000 people signed a petition calling for the event to be banned, arguing it goes against the timid nature of sheep.

But vets from the government’s Animal and Plant Health Agency (APHA) said they were satisfied the event would not compromise the sheep’s welfare.

Sheep welfare ‘not compromised’

In a statement on its Facebook page, Hoo Farm said: “We are delighted to announce the return of the world-famous sheep steeplechasing this Saturday (26 May).

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"After a review of the racing and the entire farm by two vets from the APHA on the 19 April, they were satisfied the welfare of the sheep was not compromised by being involved in the racing."

However, the vets did make three recommendations to the organisers to help the perception of sheep racing and to make it even safer.

Organisers released a five-minute video on Facebook explaining the recommendations, which included a make a change in the sheep's food, recording which sheep are used in which race, and changing the material the fences were made from to foam.

In a statement on Facebook, animal activists group Lambentations, which organised the petition, said: "All our hard work undone by the APHA."

JOURNAL : Farmers Weekly

A Scottish Blackface sheep, bred by renowned farmer Malcolm Coubrough, has been selected as the "hero image" for this year's Royal Highland Show (21-24 June).

The ewe, which won the Breed Title last year, is featuring the length and breadth of Scotland on billboards and buses – as well as on social media and TV.

"You never go to a show expecting to win, but once we'd won the class, I knew we had a chance," the Lanarkshire farmer said.

"It was an absolutely fantastic moment. I haven't won many shows, so that was definitely the biggest win I've had. I got a lovely reaction from my fellow breeders."

See also: Blackface ewe hits 11,000gns at Lanark

Launched at St Andrew Square in Edinburgh, the campaign has involved a photoshoot – which Mr Coubrough's daughter, Emily (after whom the sheep was named), also attended.

"I was a little bit nervous about taking a Blackface ewe into the centre of the city," he said. "But she was relaxed and totally chilled out. It's been a great experience."

Family affair

The family's enterprises are spread over four farms, covering about 2,430ha (6,000 acres).

At the heart of it are Mr Coubrough and his wife, Audrey; their children Emily and Charlie; his parents Malcolm and Ella; and shepherds Gordon MacDougal and Ross Henderson.

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The stock includes about 1,900 pure Blackies – an iconic breed the family have always kept.

"Blackface sheep breeding is either in you or it's not and I was hooked as a wee lad after following Dad at lambing time round the hill," Mr Coubrough recalled.

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"The breed is all about character. It's a well-balanced animal with plenty of size, a good body and displaying a lot of character in the head."

Tough breed

He adds: "It is bred to survive the brutality that the Scottish Highlands can throw at it, so it needs to have the qualities and temperament to cope with the harshest environments.

"This has been particularly important this year, as we're coming out of one of the worst winters and springs I can remember. There might not be as many lambs on the ground as normal – but we've still got a product to sell.

"They're a prolific breed. The better you look after a Blackie, the better she looks after you."

Among Mr Coubrough's highlights are a shearling which made £10,000 last year and one that went for £12,000 two years ago. "The family record is £16,000, though. That's the benchmark set by my dad – that's the one I've got to beat!

"Much of the Scottish landscape has been shaped by native breeds, which have grazed the geography of this country for centuries. We owe a lot to these breeds for the beauty that we see.

"They have also provided an income for generations of farmers who have relied on their hardiness to generate a living – which has been vital for the economy of rural Scotland."

Biggar-based Mr Coubrough will be showing four sheep at this year's show.

"Like I say, you don't go expecting to win – but we're taking the best we've got and, if we're competitive, we'll have a chance."

Breed facts

Blackface have a coarse, dense fleece that is resistant to biting winds and rainfall

Good at maintaining condition on poor forage, generally with no supplementary feed

Purebred ewes may be crossed with breeds such as the Bluefaced Leicester to produce larger, more commercial, North Country and Scotch Mules

Lambing is late – around March-April – but the breed can give birth unaided and has good mothering abilities

The wool is used in a variety of products including carpets, tweeds and mattresses

JOURNAL : Farmers Weekly

The owner of an upland sheep and cattle farm in South Wales has sorted out her succession plan by bringing her farmworker into the business as a junior partner and future heir.

Lorraine Howells, 70, who has lived and worked all her life at Cwmcarno Farm near Merthyr Tydfil, was determined that her holding would pass to a young person who would continue her work despite having no family member interested in taking it on.

That's why she has brought Lee Pritchard, 26, who has worked on the farm for 10 years, into the business as a junior partner this year and she has said he can continue to work on the farm for as long as he wishes.

See also: 10 pieces of advice for young people starting in agriculture

No money has changed ***hands*** for his stake in the business, but Ms Howells says that this doesn't mean people should think it hasn't cost him anything.

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"Young people don't have an opportunity to save up. It has been his hard work over the last 10 years that has been his contribution, rather than a lump sum," she says.

Gelligaer YFC chairman Mr Pritchard, 26, had previously been working on the farm on a self-employed basis.

He grew up just a few miles from the farm and has always had an interest in agriculture.

"I have always wanted to farm and have put everything aside for that," he says.

"Not much has changed at this stage except I can sign the cheques," he explains, saying they had already been discussing business decisions together before the transition.

The 161ha farm, which also enjoys grazing rights on the adjoining Gelligaer and Merthyr Common, supports 800 "Nelson" South Wales Mountain ewes and 30 Welsh Black cattle.

Much of the land is still affected by the legacy of opencast coal mining, common in the area until the 1970s, which has disrupted soil drainage, making land prone to be either very dry or wet.

Venture scheme funding

Mr Pritchard became a partner in the business on 1 January this year after funding from Farming Connect's Venture service helped navigate the legal hurdles.

Venture, a matchmaking service designed to pair up landowners who are looking to step back from the industry with new entrants, offers funding for business planning and legal guidance.

The new partners say that once they had agreed on a course of action, the actual formalities were fairly straightforward, with one joint meeting between a solicitor, accountant and them able to iron out most details.

All the work done by the solicitor was paid for, and they also benefited from free business planning.

Ms Howells says that she is not alone in having to make a decision that some may regard as radical.

"The hardest thing to do is letting go. I have made all the decisions on my own here for years [but] older people can't do the work, and younger people have not got the money to buy into a business. It is something that a lot of farmers have to recognise," she warns.

She says the only other alternatives would have been to sell the farm, which would have meant her having to leave her home, or grass letting, which would have also meant losing control to an extent.

Bringing a successor into the business has therefore been the option which has given them both long-term security and, while both parties laughingly admit they "argue like hell", a frank exchange of viewpoints often sees disagreements getting resolved.

Good working relationship

This good working relationship has also given them confidence to plan for the future, and they have jointly purchased a block of land some 11 miles away from the main holding.

This will support a planned increase in both ewe and cattle numbers as well as adding higher-quality grazing land with a view to fattening more lambs off grass and forage crops.

Cwmcarno is one of five farms that supply Cig Mynydd Cymru (Welsh Mountain Meat), a butcher's shop in the nearby village of Treharris, and it also sells meat at local farmers' markets.

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They say that selling via the shop has enabled them to improve prices for their livestock and given them the security of having a guaranteed market for at least a portion of their output.

A portion of the flock are crossed to Texel and Suffolk rams, with the remainder put back to the Welsh ram to provide replacements or sold through the breeding ring.

Increasing carcass weights of the lambs going into the food chain is a key focus as they look to Brexit-proof their business, as the main outlet for lighter lambs is the vulnerable European market.

It's a similar story in the cattle enterprise, with a Charolais bull recently purchased to increase the weaning weight of calves, which will then be sold store instead of fat.

A portion of the herd will continue to be kept pure Welsh Black, and fattened, as a premium can be realised from marketing them through the butchery, with the aim being to double cow numbers by retaining more females for breeding.

What is the Venture scheme?

Run by Farming Connect, the Welsh government's organisation for delivering European rural development funding, Venture is a matchmaking scheme designed to pair up young entrants looking for land and landowners seeking someone to collaborate with.

As well as introducing potential new business partners, the scheme also funds business planning for the new venture.

There are more than 300 members, with 40 potential matches currently being investigated to see if they will support joint venture options.

To date, nine partnerships have completed the process and established a business together, and 14 partnerships are in the final stages of completion.

Anyone in Wales interested in finding out how to get involved can visit the Farming Connect Venture website or call 08456 000 813.

What to do if you live outside of Wales

A similar scheme also exists for those in England and Scotland, called the Fresh Start Land Enterprise.

This offers advice for those who are looking to set up a business, enter a joint venture, develop existing family businesses or have an opportunity to offer others.

There are currently 11 opportunities advertised on its website from both landowners and those looking for an opportunity to go into partnership.

Northern Irish farmers looking to register their interest in participating in a joint venture scheme should contact the Land Mobility Scheme Northern Ireland.

JOURNAL : Farmers Weekly

With fresh thinking and bags of energy to back them up, young people can make amazing entrepreneurs.

Taking on the extra work of starting up a new business may seem daunting for many people, so imagine launching a venture while also attending lectures, writing essays and revising for exams.

We spoke to inspiring students who are juggling the world of commerce with their academic work to find why they decided to take the leap and how they manage such a bold move. Meet the students who mean business.

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See also: 10 pieces of advice for young people starting in agriculture

John and Hannah

Never take chairs to a show or event – however much time you are going to spend on your feet.

That's one of the abiding rules of John Davies and Hannah Kinston, who run a thriving cheese retailing business in tandem with their university studies.

The principle is a simple one: if you take chairs it's tempting to sit down. By moving around, greeting potential customers and being enthusiastic, you can be more welcoming and get people to visit your stand.

"About half the people who try will buy – but you've got to get out there and talk to them, rather than waiting for them to come to you," says 21-year-old John.

Both second-year degree students, the pair sell cheese they buy from the award-winning Cheshire cheesemaker Joseph Heler.

It's got a distinctly personal connection – milk from Hannah's family's dairy herd in Derbyshire supplies the cheese maker.

John and Hannah's top tip: Ask customers lots of questions and really listen to what they tell you.

They launched the enterprise in 2016 and now offer a range of more than 15 products at shows, via hamper orders and through farm shops, including the one at Chatsworth House.

They will attend 20-plus shows during 2018, including the Leicestershire County Show and the Ashby Show. The annual Open Farm Sunday event at Hannah's family farm near Burton-on-Trent is another big date in their calendar, typically attracting about 2,000 visitors.

Visitors are fascinated by "the girls" – the Jersey cows that produce some of the milk that ends up in their products.

"Young people aren't lazy"

"People, especially more elderly ones, like the fact that we're doing this," explains 20-year-old Hannah. "There can be a perception that young people are lazy and just mess around, wasting their student loans – so they like to support us because we're working hard and really trying to make a go of this."

For John, reading agri-business at Harper Adams University, and Hannah, studying veterinary medicine at the University of Nottingham's Sutton Bonington, it's not always easy juggling a growing business with their studies.

"There have been times when we've been surviving on between two and six hours sleep a night, but it makes sense to go the extra mile to establish the business at this point in our lives," Hannah says.

See also: Job profile: What's it like to be an agronomist?

Their approach is to set prices at levels that are "accessible for everyone" to capitalise on the exploding demand, partly among the younger generation.

"You used to see burger vans outside nightclubs – now it's vans selling cheese toasties," says John, who is from a family farm in Snarestone, Leicestershire. "Younger customers always want to try the chilli smoked cheddar. It's got a real kick to it."

For this entrepreneurial couple, cheese could also prove a stepping stone to something bigger – they're currently rearing a small batch of rose veal calves and, potentially trading as Jersey Boy Beef, are exploring opportunities to sell prime meat cuts and luxury burgers.

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BiJimini

Ideas come from the most unexpected places, according to Luke Craven.

This Royal Agricultural University student had his eureka moment in the car when he passed a van transporting insects for reptile food.

He'd recently learnt during his international business course about how a world protein shortage was looming.

Put the two things together and he and his now-business partner, Adam Gray, forged their big idea – farming crickets for human consumption.

There's a huge demand for sustainable protein sources and the pressure on farmland from housing is getting ever greater.

The duo realised that crickets could be kept on a small piece of land, their methane emissions are minuscule and they are a great source of protein.

And so BiJimini was born, a Wiltshire-based business that produces a cricket flour, using organic flour from local millers blended with a fine-milled cricket powder.

"We've got space for 65,000 crickets," 22-year-old Luke said. "If we were farming 65,000 cows, we'd need half of England."

Using them in a pre-mixed flour was a very deliberate decision, to avoid having to sell them whole. "This avoids the 'yuk' factor," explains Luke.

BiJimini farms tropical house crickets, which are indigenous to Asia. They sourced the original breeding stock from the Netherlands, and now breed their own.

Luke's top tip: Do your market research thoroughly before you launch – you can never do too much of this.

It's been a massive challenge learning about the breeding, feeding and environmental conditions in which they perform best.

While the critters' exact diet remains a closely-guarded secret, the entrepreneurs say they've been sourcing organic vegetable waste from local farmers.

"One day, we'd like to get the product certified as organic, but at present there's nobody that will do this because crickets are so unusual," Luke says.

Delicious, nutty flavour

They currently sell face-to-face on a relatively small scale and through their recently launched website, but hope to start retailing their tasty PowerFlour via online supermarkets soon.

"It's got a slightly nutty flavour compared to ordinary flour. It's delicious," says Luke.

While he reckons it frequently feels as if there are not enough hours in the day, there are big synergies between running the business and studying. "What I'm learning on the course is hugely helpful to the business, and vice versa."

The pair won the RAU's Grand Idea Awards in 2017, netting a £10,000 prize and ongoing support from the university, such as providing stand space for them at this year's Badminton Horse Trials.

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"When you start a business, you've got to believe in yourself and your product. If you're going to do it, just go for it," says Luke.

C&C Farming

You'll never get a better time to launch a business than when you're a student, according to Chris Webb.

You probably haven't got any dependants, you're unlikely to have a mortgage or assets to lose, and you're surrounded by lecturers who'll offer you free advice, he says.

Now 40, Chris launched a calf-rearing venture with Chris Roberts and Larry Anscombe in 2014 when he was a mature student at Reaseheath College.

At the time he was studying agriculture, selling a technology business he had started a few years previously and getting the calf enterprise off the ground. Time management quickly became a key skill.

"When you put together an idea for a farming business, it's not necessarily a case of finding a big gap in the market because they may not exist. It's more about considering what skills and resources you've got and how to use these in a way that isn't already being done by too many other people," he says.

Data-driven

"Calf rearing didn't require land or millions of pounds of investment and has a relatively high gross margin. It's also quick turnover, so better from a cashflow point of view compared with finishing beef cattle, which can tie money up for 18 months or longer."

Chris founded his first technology company when he was an undergraduate studying maths at Cambridge in the 1990s.

Chris's top tip: Pick an enterprise that makes best use of the assets, skills and resources you have. If you haven't got land, there are plenty of enterprises that don't need it.

"My background gave me a slightly different perspective. My instinct is to automate to make processes more efficient.

"We're quite data driven – I like to know exactly what the calves drink and eat, what they're costing us and how quickly they grow.

"You have to know your own strengths and capitalise on these. Similarly, be honest with yourself about your weaknesses. For example, I really enjoy working with the stock but I'm not a natural salesman or tractor driver."

The Shropshire-based business, which now rears about 1,000 calves a year, buys stock at two to three weeks old, then sells it at 14 to 18 weeks old.

"I'd definitely encourage people to get an enterprise started when they're studying. You have to pick a sector you enjoy because you won't have the same drive and commitment if you don't enjoy it.

"It's the love for what you do that'll get you through the tough periods. I really enjoy working with cattle, especially youngstock, and calf rearing is awesome."

JOURNAL : Farmers Weekly

Brexit uncertainty and a hyper-competitive retail environment mean many businesses are gearing up to export the best UK dairy has to offer.

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The prospects for this trade are encouraging, with both export volumes and values for all UK dairy products enjoying sustained growth over the past two decades (see "Key figures", below).

The opportunities

The trend comes on the back of many consumers in other countries prioritising quality over cost, as highlighted by the AHDB Horizon report, International Consumer Buying Behaviour.

See also: Dairy farming climbs to most profitable sector in England

It examined the buying habits of nine of the UK's prime export targets, including the US, China, India, Saudi Arabia and the UAE. Seven of the countries rated quality as the most important factor when choosing food.

The research also highlighted the complexities of exporting dairy products to multiple geographical markets where there is wide variation in what consumers want.

For instance, in Saudi Arabia, the UAE and US, longevity is the primary factor for buying dairy goods, while in Japan and Canada, consumers are more concerned with price.

Key figures

Between 1998 and 2017 the annual sales value of UK dairy exports increased by 134% to £1.67bn, while export volumes doubled to 1.36m tonnes.

The EU remains by far the largest market for UK dairy, accounting for 92.7% of UK exports in 2017.

Shipments to the EU over the same 19-year period grew by 153% in value to £1.26bn, as volumes also shot up 138.7% to 1.3m tonnes.

Dairy shipments to non-EU countries, which dropped 30% between 1998 and 2017, have picked up by 46% to 106,208t since 2012, with export values burgeoning by 90% to £404.7m.

While in 2017 the average price for 1kg of UK cheese at export was £3.34 on the EU market, the same volume was worth £4.02/kg to China, £4.47/kg to India, £5.67/kg to the UAE and 102% more to the US than the EU at £6.74/kg, according to HMRC.

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After the 2008 melamine scandal caused the deaths of six babies and 300,000 more fell ill due to contaminated infant formula, the average Chinese consumer's top priority became food safety – a quality that consumers see as synonymous with products carrying the Union flag.

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However, diverging consumer demands means understanding the global export market is complex, and comes with significant costs.

UK dairy products therefore remain niche around the world, with the highest proportion of respondents (43%) stating they simply didn't know how they felt about UK produce as they had had no exposure to it.

The report stressed dairy farmers were the integral link in the supply chain for selling the "farm-to-fork" story of how the food is produced.

Wyke farms exporting strategy

Few people know the difficulty of penetrating individual markets better than Wyke Farms chief executive, Rich Clothier.

Wyke currently lists 167 regions on its exports roster, with 30% of the company's total production currently being sent overseas.

But Mr Clothier wants to increase this to 50%, while focusing more resources on fewer markets – and it's all linked to wine.

The "Chablis Index" is part of the Wyke lexicon and is one of the processor's methods of establishing which new markets to enter. The rationale is if the target society enjoys a glass of French or Australian wine, chances are they will buy some premium cheddar too.

Each new market brings unique challenges to the business (see "Wyke Farms key considerations for businesses considering exporting"), but the benefits far outweigh the costs, says Mr Clothier, who estimates that Wyke's presence in overseas markets is worth 2p/litre to the firm's dairy farmers.

Exports have also insulated the processor's 130 milk producers against exposure to the worst troughs of domestic milk market volatility.

Mr Clothier believes the UK has a long way to go to catch up with the likes of Ireland, whose dairy exports were worth more than double the UK's at 4.05bn (£3.52bn) in 2017.

"Ireland do very well already," he says, "Kerrygold butter is in virtually every US supermarket."

Mr Clothier says it is essential for Defra to do more to help companies export and open up new markets, but also for the government to be less hawkish in world diplomacy.

"I would like to see the UK take a backseat in world affairs. We should be inviting people like [Donald] Trump to the UK with open arms."

Mr Clothier adds: "He is the leader of the richest country in the world and we are risking trade deals with the states with negative rhetoric. We should be getting on with everyone."

Wyke Farms key considerations for businesses considering exporting

Not all milk buyers are active in export markets – are you missing out on farmgate premiums of about 2p/litre?

Protecting your brand is costly. Depending on the region, it can cost between £10,000 and £20,000 to register a brand and this can take years. It took Wyke a decade to get into Russia.

Wyke had to go to court in Australia as someone tried to copy their brand. The cheese company won, but at great legal expense.

Certain products need to be blessed. Rabbis and imams must be flown in to assure religious certification.

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Labelling must be customised for each market. Different countries demand different elements. All of this adds to costs.

Many countries want 12 months on cheese sell-by dates, whereas the UK requires only eight months.

It takes nine months for Wyke cheese to reach the Falkland Islands and the taste can change while in transit.

What does it take to export?

Organic dairy **co-op** OMSCo exports dairy products worth 20% of its annual turnover, but the processor has ambitions to increase this to 50% in the coming years.

Of the exports sent outside of the EU, 60% heads to the US under a United States Department of Agriculture (USDA)-accredited contract.

Milk suppliers must receive individual farm accreditation from the USDA.

OMSCo chairman Lyndon Edwards is one of 40 of the processor's 250 dairy farmers with that accreditation.

The accreditation is notoriously difficult to achieve, and Mr Edwards says it has assured that he is always pushing himself towards the highest standards.

"We make around a 2p/litre premium from the [USDA] contract, but the costs of adhering to it are higher, so it probably levels out about even," says Mr Edwards.

"But we enjoy the challenge of always being at the top of our game – as a farm we've had to evolve, grow and be really open-minded with what the contract is asking you to do."

Mr Edwards says the key for his farm business is faultless animal health to guarantee the highest-quality milk – one slip-up and you will lose a market forever, he says.

"We take health so seriously we've brought silaging in house to guarantee we get the highest quality. You cannot skip on attention to detail with exports."

The accreditation also requires the farm to change bedding twice a day and add extra feed enriched with selenium to help increase immunity.

"The quality of the product is as important as the story behind it," says Mr Edwards.

OMSCo's number one export brand, Kingdom Cheddar, focuses strongly on branding, with a union flag and images of sweeping green British pastures, which global customers respond positively to, says Mr Edwards.

"Finally, the pricing has to be right – we can't be more expensive than our nearest rivals or the customer won't try our cheese in the first place.

"Consumers buy Kingdom on price first and return a second time because of the flavour."

Mr Edwards admits that belonging to a processor that has the ability to balance its milk supply and sell any surplus abroad may just have kept him in the milk game.

"If we didn't join OMSCo when we did, we would have experienced the full volatility of the milk market – we would have thought about getting out of milk altogether."

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Farmers in England are taking effective measures to cut greenhouse gas emissions, the results of a Defra survey show.

The Greenhouse gas mitigation practices – England Farm Practices Survey (FPS) 2018 [PDF] provides a range of results to show how seriously farmers in England are taking action to improve air quality.

The FPS asks questions about how farming practices are affected by agricultural and environmental issues.

See also: No progress on reducing agricultural emissions, says report

This survey, sent out in February, focused on practices relating to greenhouse gas mitigation, including nutrient management, anaerobic digestion, emissions, fertiliser, manure and slurry spreaders, manure and slurry storage.

Farm health planning and biosecurity, grassland and grazing, livestock feeding regimes and breeding practices, were also covered in the survey.

The key results are summarised below:

<https://infogram.com/england-farm-practices-survey-2018-1hmr6gypzwzz6nl>

The survey was sent to 6,037 holdings, which were targeted by farm type and size to ensure a representative sample.

The response rate was 40%. The full breakdown of results, by region, farm type and farm size will be available at the **end** of June 2018.

Earlier this week, Defra secretary Michael Gove said his department would be taking action to tackle ammonia emissions in farming, which accounts for 88% of all emissions.

JOURNAL : Farmers Weekly

The recent Health and Harmony consultation from Defra, while covering a wide range of policy options for post-Brexit agriculture, has been criticised by some for its lack of focus on human health and nutrition.

But a new report from Exeter University's Prof Michael Winter, designed to coincide with the inaugural Nuffield Farming Lecture in early July, suggests there are considerable opportunities for farmers to tap into the growing demand for healthy food – with or without government support.

See also: Thousands respond to Defra's Health and Harmony consultation

According to Prof Winter, food security is no longer solely about the availability of food, but also covers its nutritional quality.

"For farmers, the potential for heightened attention to the nutritional content of their products extends far beyond the traditional concerns of safety, quality and provenance," he says.

"As a result of the health consequences of the 'nutrition transition', farmers may face new market changes, presenting both challenges and opportunities."

Fragile situation

Prof Winter says he is reluctant to see extra demands imposed on farmers in the quest for a more nutritious food supply, given the fragile economic situation that many face and the high degree of dependency on CAP payments, which are set to be phased out post Brexit.

"Merely to heap yet more demands on a beleaguered sector is inappropriate and unhelpful," he says.

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But in some areas, there is potential for farmers to capitalise on the emerging demand for a better quality diet, especially in the meat sector.

According to Prof Winter, the growth of veganism is symptomatic of a much wider set of concerns about meat. But rather than mounting a vigorous pro-meat advertising campaign “and so putting itself at odds with dietary recommendations”, he suggests the livestock sector should “understand and adapt to change”.

“It has long been the case that white meat has been perceived as a healthier option than red meat and moreover, white meat can be seen as a more ‘sustainable’ option,” says Prof Winter.

“What these arguments do not fully take into account are issues of animal welfare and the fact that ruminants, unlike pigs and poultry, can be fed on feed not directly palatable to humans such as grass and crop residues.”

There is also a growing body of evidence that grass-raised beef has specific health benefits, which is enabling some producer groups, such as Pasture For Life, to promote their meat on this basis.

Prof Winter cites research showing that grass-fed beef can significantly improve the fatty acid and antioxidant content of beef, as well as raising Omega 3 levels. It is also better for cholesterol levels.

Fruit and veg

The Nuffield report also highlights fruit and vegetables as an area where there is a big trade deficit and, as such, an opportunity for farmers.

“The scope to expand production of a range of soft fruit, apples, pears and plums, nuts and many vegetables is enormous, and plays well to both the health and local provenance agendas,” says Prof Winter.

Having said that, he predicts challenges accessing sufficient seasonal labour post-Brexit, and points to the high capital requirement to engage with some specialist crops.

Beyond the fruit and vegetable sector, there are other opportunities for farmers to tap into the health food market – for example, in the areas of whole grains, ‘minor’ cereals (such as spelt, rye and oats), and pulses, which can all deliver benefits to consumers.

“Consumption patterns, and therefore demand for food, will change as a consequence of both increased consumer awareness and new policy imperatives,” says Prof Winter. “Farmers can either react as these developments unfold, or they can be proactive.”

Policy initiatives

While keen to avoid further burdens being placed on farmers, Prof Winter suggests a new policy framework is needed to encourage better health and nutrition.

In particular, he welcomes Defra’s drive towards paying “public money for public goods”, but says limiting this to those services which the market cannot reward, such as the environment and recreation, is too narrow.

Healthy food, says Prof Winter, is something which is “most palpably in the public interest” and should also be supported.

He describes it as “a profound paradox” that the sector that receives the least CAP support – horticulture – is the one that has the most to offer in terms of healthy eating.

“I am not suggesting direct subsidies for horticultural products. But we could consider capital grants or loans to encourage appropriate investment, start-up assistance in marketing and, perhaps, a conversion scheme similar to the successful Organic Conversion Scheme,” he says.

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Prof Winter also suggests public research should have “human nutrition at its heart”, while marketing initiatives should be encouraged, such as “health proofing” quality assurance schemes and building more robust supply chains.

JOURNAL : Farmers Weekly

The short, five-month grass growing season that Finnish farmers face will strike a chord with many UK counterparts following one of the toughest spring growing seasons on record.

Yet progressive farmers in the Scandinavian country have doubled grass yields to more than 10,000kg DM/ha in the past five years, overcoming hard winter frosts of -10C and heavy spring rainfall.

Proagria national grassland consultant Anu Ellä told delegates at the Royal Welsh Grassland Event that the grass growing season typically ranged from 1 May to 19 October in the south and 9 June to 29 September in the north, with many fields resembling a mud bath as close to six weeks before cutting.

See also: 12 varieties added to grass and clover recommended lists

“In five months we have to produce all the silage for the next year so we have to be effective and we can’t have a lot of waste,” she said.

How Finnish farmers are improving grass yields

Finland dairy farming facts

Average dairy herd size is 43 cows

Herd size across the 10 dairy farms mentioned was about 85 head

Finnish production average is 9,675kg milk a cow a year

Feeding 22.5kg DM a cow a day (51% silage)

1.38 litres produced for every 1kg DM silage consumed

Ms Ellä explained how progressive Finnish farmers were working together in discussion groups to overcome these challenging growing conditions.

She highlighted a group of 10 dairy farmers she is working with who have doubled grass yields from 5,480kg DM/ha annually to 10,425kg DM/ha, on average, in the past five years (see Table 1).

Ms Ellä said Finnish farmers who had improved yield were choosing diverse grass mixes containing timothy for improved winter hardiness and tall fescues for drought survivability.

Meanwhile, tetraploid perennial ryegrasses, alsike clover and white clover are over-sown in the spring to replace that lost to winter kill and increase D-value and palatability of second and third silage cuts.

Improving sward density by adjusting cutting height to 10cm protected grass from frost and aided regrowth, Ms Ellä said. “Even soil surface of silage ground decreases the yield losses caused by ice damage and we don’t mow in the autumn,” she explained. “Good density going into the winter prevents problems the following year and grass grows at 350kg/day before first cut.”

Table 1: How Finnish farmers have doubled yield

Management practices in 2010: Growing 5,480kg/Dm/ha

Management practices in 2017: Growing 10,425kg DM/ha

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Grass grown in a 5-7-year rotation

Grass re-seeded every 3-4 years

2-3 silage cuts taken annually

3 cuts taken each year

No over-seeding

Over-seeding 40% silage ground

Mostly growing timothy and meadow fescue

Diverse grass mix: timothy, perennial ryegrass, red and white clover, meadow fescue, tall fescue and lucerne grown.

No idea of variety quality

Selecting the best performing varieties

On average 2.5 grass species grown on each farm

On average 6.5 grass species grown on each farm

Grass established using 12cm spacing

Grass established using broadcast method to improve cover and sward density to protect against cold

Using mostly manure and nitrogen fertiliser and little or no soil sampling

Soil sampling (number of samples analysed increased by 51%) with indices address and full fertiliser applied

Mowing height: 5cm

Mowing height: 10cm to allow better regrowth

JOURNAL : Farmers Weekly

The cost of wheat disease control has been rocketing over recent years, with some farms now using five or even six fungicide applications to protect yield.

Unhappy with being dragged down this slippery slope, Kent grower Andrew Howard is moving away from a prescriptive chemical-reliant approach by adopting a system that focuses on soil health and plant nutrition to reduce the impact of disease.

A UK wheat production system that relies heavily on bagged fertiliser and pesticides has produced some world record-breaking yields in recent years, most notably the 16.52t/ha achieved in Northumberland in September 2015.

See also: How to find the best varieties on the revamped oilseed rape list

Mr Howard says this “high-input, high-output” system can be successful, but comes with eye-watering costs and is justifiable only for those growers with the best land and climate.

Farm Facts – Bockhanger Farms, Ashford, Kent

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330ha combinable crops

Soil type – mixed (heavy clay/alluvial loam/sands)

Cropping – winter wheat, winter barley, spring barley, spring oats, spring beans, spring linseed, grass seed and intercrops (peas/spring rape and spring beans/spring rape)

Establishment system – no-till

Headland factor

His farm just outside Ashford sits on variable soils and in an area prone to yield-strangling hot spells during June. Average field size is also small, meaning that on some fields 30-40% of the crop is on headlands.

While his wheat can achieve 14t/ha in the middle of the smaller fields on the best soils, the headland factor drags his average down to 9-10t/ha, so he can't justify high variable costs.

He also doesn't see the system having a bright future. "I might be wrong, but I think that type of [high-input] farming is going to be phased out," he says.

"You only have to look at Defra's 25-year environment plan to see that."

Knowing his farm's limitations, Mr Howard went about researching how he could reduce this reliance on external inputs and reduce costs, while maintaining or even improving output of his crops in the process.

Inspired by Nutrition Rules!, a book by Australian agricultural consultant and plant nutrition expert Graeme Sait, he discovered an alternative philosophy to intensive agriculture that cuts use of chemicals and bagged fertiliser.

"Its basis is that all plant disease is linked with nutrition and if you get that right, disease should, in theory, disappear. There has been a lot of work done in this area and there is reference after reference out there to back it up," he adds.

Healthy soils

Giving plants all the nutrients they need is impossible without healthy soil, and following 10 years of min-till and then strip-till, the farm adopted a no-till establishment system in 2011 to further improve soil health and biology.

Mycorrhizal fungi and their association with plant roots are a fundamental factor in plant health and to avoid harming or reducing these fungi in the soil, Mr Howard is phasing out fungicide seed treatments on his cereal crops.

He also injects a liquid feed alongside the wheat seed to help improve establishment, stimulate rooting and help the mycorrhizal-rhizosphere relationship in the autumn.

This includes a mixture of plant-associated *Pseudomonas*, *Bacillus* and *Azotobacter* bacteria species and *Trichoderma* fungi which, when applied within a healthy soil system, can promote plant growth, health and disease resistance.

To cut costs, Mr Howard home-brews his own bugs in an intermediate bulk container (IBC), rather than buying in ready-made products. The brewing kit cost just £300 to set up and after finding a different food source for the bugs, he has halved his production costs.

"We were using seaweed powder, but we now use molasses. It results in double the bugs in the solution, so we have been able to reduce rates by half," he explains.

Silica uptake

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Another component of the liquid applied with the seed is silica, which is heavily linked with reducing abiotic and biotic stresses in plants and increases their ability to resist pathogenic fungi.

Tough plants such as mare's tail (*Equisetum arvense*) are very high in silica and Mr Howard says increasing levels of the element in the crop through the season helps act like armour against pathogens such as septoria and rusts.

He uses a highly concentrated form of silica known as diatomaceous earth, mixed into the suspension for as little as £2.50/ha, and last season tested throughout the growing cycle to monitor levels in his wheats.

"We are trying to get a benchmark. Generally, 100ppm is OK and we were at 300ppm last year. If you get over 500ppm, it is considered very good," he says.

"Mycorrhizal fungi are linked with silica uptake, so without the right soil biology you won't be able to improve it and one of the biggest antagonists is nitrogen fertiliser."

Weakened defences

As well as being an antagonist to silica uptake, Mr Howard says excess nitrogen in the crop system is the biggest cause of disease.

He likens it to sugary energy drinks in humans: it gives the plants a sudden "rush", but ultimately they crash, weakening disease defences and increasing the need for fungicides.

Ammonium nitrate is one of the worst culprits and a switch to urea sulphate as a slow-release alternative has helped reduce this "rush" effect.

Nitrogen fixers are also included in the liquid mix at seeding to provide the crop with a slow release nitrogen supply that serves up 30-80kg/ha of N throughout the growing season.

"A key thing with the nitrogen fixers again lies in the soil. You can't put them on to a poor environment, it needs to be healthy for them to survive and provide the [crop] benefits," he adds.

After using the alternative system and markedly improving his soils over a seven-year period, the foundation was laid to reduce bagged N use by 10% a year over the past three years.

Last season three passes of 38:0:0:19 (NPKS) urea sulphate and late application of ammonium nitrate to hit milling spec gave his quality wheats a total of 180 kg/N/ha, and the 10% incremental reduction will continue in future seasons, with just 160 kg/ha planned for 2018.

Spring programme

The autumn biological and nutrient programme is designed to produce a well-established and healthy crop and is followed up by a series of foliar sprays at the main fungicide timings during the spring.

Mr Howard tests his soils, accounts for nutrients available from the preceding cover crop and draws up a nutrient plan for the season.

This is backed up by tissue tests that continue to measure nutrients, plant pH and brix levels (an indicator of photosynthetic capability) as the season progresses.

Any deficiencies are then addressed by adding macro or micronutrients to the base solution of amino nitrogen – which itself is 95% efficient – and applied at the T0, T1, T2 and T3 timings with any fungicide that is required, based on the season's risks.

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This is all complimented by another home-brew microbial mix, based on *Bacillus* species with a food source, which colonises the leaf surface and stomata (leaf openings) and helps reduce or delay disease infection. The cost is about £1.25/ha per application.

To implement his system, Mr Howard works closely with his independent agronomist Roger Bryan of Crop Management Partners and receives advice from agronomy, soil health and biological consultancy Edaphos's managing director, Mike Harrington, on nutrient planning and biological product use.

Cutting costs

While this approach won't "control" disease completely, healthy, happy plants and microbes working in the crop's favour are allowing Mr Howard to cut his fungicide spend considerably.

Last year he didn't use a T0 fungicide at all and reduced fungicide spend at T1 by 30%, with just an azole/chlorothalonil mix applied with the nutrients and microbes.

The T2 timing has included costlier SDHI-based chemistry in the past, but Mr Howard has reduced dose by 30% and isn't convinced it will be required at all in the future if the crop is supplied with the right balance of nutrients.

This is particularly the case with phosphorus, potassium and copper, as deficiencies in these elements have been linked with rust epidemics and plants struggle to scavenge sufficient supplies themselves.

"My agronomist would like to use an SDHI at T2, but I'd hope in the future, two applications of Bravo (chlorothalonil) at both T1 and T2 might be enough," he says.

"The only issue is the potential for mycotoxins [following a fusarium outbreak], so a fungicide will be required at T3 for the foreseeable future. The last thing you would want is to end up with a heap of unmarketable product."

Better bushels

Mr Howard has seen comparable yields to previous years and when comparing wheat treated with his biological programme with conventionally treated controls, he noticed an improvement in bushel weights from 76-77kg/hl to 79-80kg/hl last year.

This season he is conducting some strip trials where no T1 fungicide will be used at all and he would also like to wean his crops off remedial use of trace elements as the health of his soils improves.

There are also trials in the ground looking at wheat variety blends of three Group 1s and three Group 3s to see if the mixture of genetics can provide further assistance in reducing the impact of disease.

He is not aiming to go organic, but instead wants to fight the tide that has seen UK growers move from using 180kg/ha of N and two fungicides 20 years ago, to much higher N rates and four or five fungicides today.

"Also, any new fungicides that come along work well for a few years and then they start to break down," he says.

"I see moving to this system as a necessity, not a choice, and the ultimate goal is for the farm system to run itself without any external inputs."

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Trailblazers

This new series aims to showcase arable farmers who are ahead of their time and are trying new approaches, whether its growing new crops, taking a radical approach to growing oilseed rape or being a pioneer in the use of new technology.

If you know of any farmer or wish to be featured in this new series, contact the arable editor at richard.allison@reedbusiness.com

Name: Andrew Howard

Problem being solved: The cost of managing disease in wheat has rocketed in recent years, but this high-input, high-output approach does not pay on more challenging soils and climates.

Approach: Overhauling how wheat is grown, cutting back on inputs such as fertiliser and fungicides by adopting a system that focuses on soil health and plant nutrition to reduce the impact of disease.

JOURNAL : Farmers Weekly

Companion cropping is helping to offset some of the risks associated with growing 120ha of winter oilseed rape on a Worcestershire farming estate.

At the same time, it is supporting the 1,500ha farm's ongoing commitment to soil health and adding some resilience into the system, while helping to support a sustainable rotation and reduce the need for crop inputs.

See also: How one farmer slashed his fertiliser and fungicide use in wheat

With the technique now in its third year at Overbury Enterprises, near Tewkesbury, farm manager Jake Freestone says he started to look at its potential when the neonicotinoid seed treatments were banned and he had to look at different ways of growing rape.

"It was partly about dealing with an increased risk from cabbage stem flea beetle, but also about soil health," he explains.

"As a predominantly no-till farm, we are looking to bring benefits to soil structure and fertility in all of our actions and operations."

Soil fungi

One issue he hoped to overcome with companion cropping was the fact oilseed rape doesn't host any mycorrhizal fungi, so existing soil fungi populations are starved for the year the crop is being grown in the rotation.

"Having promoted these fungi by moving to no-till and encouraging the symbiotic relationship between them and plant roots, it makes sense to look after them," points out Mr Freestone.

"Companion plants, which grow down the rows with the rape, can fulfil that function."

Selecting species

In the first year, having taken advice from Nuffield scholar and Kent farmer Andy Howard, he used a vetch and buckwheat mix as the companion crop, drilling it at the same time as the oilseed rape crop in mid-August.

At a seed rate of 12kg/ha of vetch and 7kg/ha of buckwheat, it grew very well.

"It wasn't a particularly fast-growing season, so both species flourished but didn't outcompete the rape," Mr Freestone recalls.

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In the second year, he trimmed the seed rates back a bit to 10kg/ha and 5kg/ha, respectively, with the crop taking very well and giving him some concerns about any possible competitive effects on the rape it was growing with.

Yield boost

"It turns out I needn't have worried, our rape yields in 2017 were the best we've had for some time, at an average of 4.08t/ha. The year before, they were lower at 3.03t/ha."

Companion cropping benefits at Overbury

Seen oilseed rape yield of 4.08t/ha

Use of bagged nitrogen has been reduced by 10%

No longer need a pre-emergence herbicide, the saving is more than the extra cost of seed

Helped reduce cabbage stem flea beetle feeding damage

However, having a shoot on the estate forced some changes for this year's companion crop species mix, with the buckwheat being dropped in favour of 2kg/ha of crimson clover, to prevent pheasants taking refuge in the vigorous cover.

"It is all drilled in one go with the rape, using different hoppers, and with slug pellets and fertiliser also going on at the same time in one pass," explains Mr Freestone. "It's a quick and simple operation."

Nutrient contribution

Vetch, which develops very rapidly, produces active nodules within six weeks, which means the nitrogen is recycled and made available for the oilseed rape in the spring, after the companion crop has been destroyed.

As a result, the use of bagged nitrogen has been reduced by 10%, which gives Mr Freestone an idea of the nutrient contribution made by the vetch.

"We are also putting an active carbon source, molasses, in with the liquid fertiliser, which helps the soil microbiology use the fertiliser more effectively."

He does the same with every pesticide application, as he looks for ways to reduce the farm's spend on agrochemicals.

Crop destruction

An application of Astrokerb (aminopyralid + propyzamide) in late winter is used to destroy the companion plants, although the buckwheat component was always killed by frost.

"It's the only broad-leaved weed herbicide we use in the rape and we are going in then anyway for grassweed control," he adds.

"The weed suppressing effects of a companion crop means it doesn't need a pre-emergence herbicide, which has been a saving."

The companion crop seed cost is £32/ha, which is just below the cost of a pre-emergence herbicide, he calculates.

Having more diversity in the field seems to have helped reduce cabbage stem flea beetle feeding damage, which could be due to the pest being confused by the other plants or the rape crop is disguised in some way.

Pest damage

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"Either way, they're not feeding on the rape like they were. We haven't had to put any insecticide on the crop."

Mr Freestone has used the companion cropping technique with both conventional and hybrid oilseed rape, with equal success, and has even done a split field trial to check there were no detrimental effects on yield.

"There aren't any downsides that we have encountered," he says.

"It is helping with one of our overall aims of reducing our agrochemical use and it is maintaining our soil fungi populations. Last year's lift in yields is a good indicator."

Looking ahead, he is interested in other oilseed rape growers' experiences with different companion plants, such as spring beans, and is keen to extend the concept to other crops and put another species in with his wheat.

"I'm not sure what yet," he admits.

He has tried having an understorey of white clover in the rotation, with it established and growing in with beans, followed by wheat and then barley.

"The clover grew fine, but it didn't give us any savings in fertiliser and herbicide."

What is companion cropping?

Companion cropping is the practice of growing two or more plant species in the same field at the same time.

While it can include practices such as intercropping, undersowing, relay and pasture cropping, the technique described above results in only one of the plant species being harvested.

In France, a yield benefit of 0.3t/ha was recorded by seed merchant and distributor Jouffray-Drillaud, when a mix of two vetch species and berseem clover was grown alongside winter oilseed rape.

The same French work also suggested nitrogen applications can be reduced by 30kg/ha where companion planting is being used.

Other benefits recorded by the trial were reduced insecticide use, weed suppression and improved soil structure.

JOURNAL : Farmers Weekly

Fertility is improving in Ireland's largely block-calving dairy industry despite tough growing seasons and ambitious herd expansion plans since milk quotas ended in 2015.

The average national calving interval has fallen since the Economic Breeding Index (EBI) was introduced in 2001, with the national average reducing from 403 days in 2011 to 389 in 2016, according to the Irish Cattle Breeding Federation (ICBF) – the organisation in charge of Irish beef and dairy cattle genetic evaluations.

UK farms also cut calving intervals by 14 days between 2009-10 and 2016. National Milk Records show a reduction from 428 to 414 days between 2009-10 and early 2016 in a much more all-year-round calving-dominated industry.

Three farmers in eastern Ireland are all strong advocates of the EBI system and opened their doors to an Ireland Genetics study tour to show why.

See also: Dairy conversion trebles output by focusing on milk from grass

UK v Irish index

UK profitable lifetime index (PLI)

UK Spring Calving Index (SCI)

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Ireland Economic Breeding Index (EBI)

Production 32.2%

Production 29.3%

Fertility 35%

Fertility 20.3%

Fertility 21.3%

Production 32% (protein 18.6%)

Lifespan 14.4%

Maintenance 16.1%

Calving 10%

Maintenance 9.6%

Lifespan 13.5%

Beef 8%

SCC 9.1%

SCC 10.4%

Maintenance 7%

Udder 7%

Feet/legs 3.7%

Management 4%

Calving ease direct 1.6%

Udder 2.6%

Health 4%

Calving ease maternal 0.3%

Calving ease 2.6%

Fertility allows diversification into heifer sales

David Hannon, Tír Na Rí Farm, Derrypatrick, Drumree, County Meath

285 cows plus followers on 107ha at 2.87lu/ha

83ha grazing platform at 3.5lu/ha

5,460kg milk recorded yield at 4.56% fat and 3.61% protein at 118,000 SCC

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446kg MS at 0.8kg:1kg cow bodyweight

370-day calving interval

600-750kg/concentrates a cow

Manufacturing contract, Lakeland Dairies

Spring-calver David Hannon has developed a reputation for high EBI heifers, which he has been able to sell for the past six years on account of his herd's great fertility performance.

This is despite undergoing herd expansion, doubling cow numbers in 10 years and bringing the mean calving date forward a week to 17 February.

Calving in a 12-week block and hitting a calving interval of 370 days means he can cull cows through choice, not necessity, and can retain the earliest born heifers, selling surplus females.

Mr Hannon undertakes AI work on cows at home, while replacement heifers are contract-reared off-farm for 1.50/day (which includes feed, health plan and serving).

Beef bulls run with heifers for 12 weeks and for four weeks with the cows, accounting for about 10% of overall inseminations.

Calf sales

The current high EBI status of the herd (119) produced heifer calves last year with an EBI score of over 206, against a national average of 140-150.

Mr Hannon prefers to serve more cows to dairy, selling about 35 heifers a year for £220-£264 a head and getting £70.33 a head for Friesian bull calves for export, rather than having Angus crosses going for £40-£131.

Breeding

The Hannon family aims to breed robust, fertile cows that yield good milk solids. The grazing platform is long and thin, meaning cows walk up to 3.5-4 miles/day.

This year's six-week in-calf rate was at 85% in cows with a barren rate of just 5%. Meanwhile, the farm's components are allowing the Hannons to make 4-5p/litre over base price (3.6% fat, 3.3% protein).

A simple three-week tail painting programme is used on cows, with all AI being natural on cows. Heifers are in an estrumate programme on the rearing unit.

Calving interval falls 14 days in four years

Kevin and Alan Meade, Deerpark, Slane, County Meath

270 cows plus followers on 137ha

85-97ha grazing platform at 2.79lu/ha

7,500kg milk recorded yield at 4.4% fat and 3.52% protein at 144,000 SCC

385-day calving interval

586kg MS at 0.9-1kg: 1kg cow bodyweight

1.9t concentrates a cow

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Producing liquid and manufacturing milk for Glanbia

Since 2014 the Meade family has increased herd size by 60% purely from homebred replacements while cutting 14 days off the calving interval.

Now at 384 days, the calving interval is artificially high due to retaining some cows that don't hold service while the herd is being increased from 175 to 280, explain Kevin Meade and son Alan.

"We are increasing numbers by 5% this year to 290, but that will be the limit," says Alan. "We are close to 1kg of milk solids to 1kg of cow liveweight and will look to tighten up the spring block to 12 weeks again after expansion is over."

High EBI

A team of 12 AI bulls is used (over 120 for fertility), each one selected purely on EBI, provided it is -1.5 or better for type.

The Meade herd is served by Progressive Genetics AI technicians, using a simple tail-painting programme with no pre-breeding heat detection or pre-breeding checks.

The Meades run a 14-week spring block and a 10-week autumn block from September 20 (25% of the herd), producing both manufacturing and 1,110l of liquid milk a day.

Cows are managed and grazed in one group. The maiden spring-calving heifers are the only group naturally bulled due to them being far away in paddocks in spring and early summer.

Longevity

Currently 25% of the herd is fourth lactation or higher. Mature cows are bred to be 580-600kg and are finished on pasture when barren, to make 1,050 deadweight.

Cows get a minimum of 3kg concentrate (16% crude protein) at all times. Autumn calvers get about 2t a cow and spring calvers get 1.25t a cow, although this was increased last year (1.9t/cow average) on account of higher stocking rates and a 10% drop in grass production.

Component lift worth £15,800 a year

Martin Quigley Farm, Inniskeen, Dundalk, County Louth

90 cows and 20 heifers on 43ha at 2.45lu/ha

30ha grazing platform at 3.5lu/ha

6,500kg at 4.32% fat and 3.59% protein at 123,000 SCC

390-day calving interval

518kg MS at 0.9kg:1kg cow bodyweight

1.4t of concentrates a cow

Winter contract, Glanbia

Lifting milk constituents has bolstered the income of autumn calver Martin Quigley, putting 2.6p/kg on his milk cheque.

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In 2012, Mr Quigley's EBI herd was producing milk at 3.91% fat and 3.33% protein, which increased to 4.32% fat and 3.59% protein by 2017.

Meanwhile, he has increased his herd from 70 to 90 cows, started genotyping and has seen his calving interval drop from 410 to 395 days over the same period, with 50% of the herd calved in four weeks.

"Herd expansion means we have added about five days on the calving interval for each carry-over cow," explains Mr Quigley, who expects a sub-380-day interval when numbers peak at 100 cows.

Currently running cows around 570kg mature weight, Mr Quigley is targeting 1kg of milk solids per every kg of cow bodyweight, which he believes can be achieved in the future on account of last year's heifers having an EBI of 186 and predicted to yield 620kg of milk solids as mature cows.

Autumn block

North-eastern Ireland receives less rain (750mm) and colder winters than the southern dairying regions, meaning Mr Quigley opts for an 11-week autumn calving block. Much of the farm is 23cm of clay over shale, but still managed to produce 11.3tDM/ha of grass in 2017.

Mr Quigley oversees AI of the cows, while Progressive Genetics manages a synchronisation programme with the heifers.

"I'm more confident of having grass here in February than I am in July," explains Mr Quigley, who has the option of drying off in July when cows are 270-280 days in milk.

"My top EBI cow is 213 and you can't tell her apart from the rest," he adds. "Without figures we don't know where we are."

JOURNAL : Farmers Weekly

County council farms provide a great opportunity for people looking to reach the first rung in the farming ladder and many holdings are designed specifically with new entrants in mind.

In England, 2,502 farms covering 87,000ha are let by councils to 2,053 tenants, according to the 67th annual report to parliament on local authority smallholdings, which covers April 2016 to March 2017.

Cambridgeshire's Farms Estate is the largest in England and Wales, and is made up of 232 tenancies across 13,400ha – giving an average farm size of 57ha.

See also: How the Next Generation network is helping young people get into farming

What's on offer

Smaller starter units offered by councils are often an appealing alternative to a bigger private tenancy that can require an investment of hundreds of thousands of pounds.

George Dunn, chief executive of Tenant Farmers Association, says most local authorities will be looking for tenants below the age of 40, though tender exercises will be open to individuals of any age.

It is also important for tenants to consider what the plan will be beyond the fixed term being offered by the authority, as the time will tick away quickly.

Some councils do offer long-term agreements, but many are still fixated with short-term plans. Others may offer a short tenancy on a starter farm, with the possibility of a future term on a progression holding.

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Tenants should bear in mind the wider context surrounding county farms. As assets of the local authority, the estates need to be run profitably to contribute to other frontline services, so rents may not necessarily be cheap and a strong, viable business plan is essential.

Application advice

Duncan Slade, rural estates surveyor at Norfolk County Farms, is tasked with finding the best potential applicant for any farm on offer.

"We start with preparing the details of the farm and conducting a farm open day so applicants can meet us and view the farm," he says. "We also run applicant training days where we have a team of experts to offer advice on budgeting, business planning, marketing for example."

Each applicant has to attend a farm viewing day, complete an application form and submit a detailed business plan for the farm they want to apply for.

The business plan must include a financial summary and forecasts covering the first three years of the proposed business, a management and marketing strategy, a strengths, weaknesses, opportunities and threats analysis, and business aims and objectives.

See also: County council farms – how many are left?

Mr Slade recommends people seek professional advice where appropriate or discuss it with their farming friends and connections.

After the applications have been submitted, now done entirely online, the team uses a scoring matrix to create a shortlist of people to interview.

A panel of experts interviews the candidates and then appoints the successful applicant.

"We are looking for someone who can assure us that they are the best fit for the farm – someone who we can give the keys to the farm to and know that it is in good hands," says Mr Slade. "We want tenants who are enterprising, adaptable and hardworking."

Mr Slade's three top tips:

Really engage with the process

The business plan is an essential and critical document so don't just pay lip service to it

Consider what the council's aims and objectives are for holding the county farms estate. How can your business help the county meet those?

Advice for tenancy applications

Applicants must prove to a landlord they are dedicated to farming and have financial sustainability and sound judgement.

Have an open mind and do not be limited to one location – be prepared to move.

On the viewing day, take time to walk around the farm, assess the land and buildings, and get a feel for the place. Dress tidily, be polite and ask questions.

Give yourself time to prepare the business plan and tender documentation. It will take weeks to prepare a good tender and it may need to be altered before submission.

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Prepare a budget, cashflow and balance sheet to demonstrate the viability of the business, show your assets and display how you would finance taking over the farm.

Present the information in a clear and logical way; your figures will have to stand up to scrutiny.

Decide on a level of rent that is sustainable. Do not overestimate the rental value in an attempt to win the farm.

Before signing a written farm business tenancy agreement, check it contains the terms you expected. It is advisable that you seek advice on this.

If you don't succeed on your first attempt, ask for feedback and keep trying.

Case study

Brian and Carla-May Roberts, Coxhill Farm, Burlington Estate, Norfolk

Earlier this year, Norfolk County Council (NCC) began a search for enthusiastic and hard-working tenants to take on business tenancies at four farms.

The council received 39 high-standard applications and nine candidates were interviewed by a panel of officers, elected members and external experts. Tenants were found for each farm.

Councillor Keith Kiddie, chairman of NCC's business and property committee, said: "This year's lettings illustrate the success of the county farms estate in providing a crucial ladder into farming.

"Two existing tenants are being able to progress to larger farms, and new entrants are being given the chance to get established and farm on their own account."

New entrants Brian and Carla-May Roberts successfully applied for the tenancy of the 88ha Coxhill Farm on the Burlingham Estate.

Mr Roberts' great-grandfather and grandfather were both county council farm tenants, which prompted the idea of applying for a council farm tenancy.

Advised to learn a trade, Mr Roberts became a plumbing and heating engineer, but about seven years ago decided to follow his dream of getting into farming.

The couple bought a tractor and started a contracting business, but still wanted to farm full-time.

When they discovered that the county council farm was coming up for tender, they immediately decided to apply.

See also: The benefits of becoming a council farm tenant

After completing a two-day course offered by NCC for first-time applicants, Mr and Mrs Roberts attended the mandatory viewing day and worked on their application, with the professional assistance of a land agent.

"Our goal was to stand out," says Mr Roberts. "The council gave us the criteria of what they wanted, like business plans, and we tried to go the extra mile and give lots of detail."

It took three weeks after submitting their application to find out they had made the shortlist for interview.

Then Mr and Mrs Roberts gave a presentation on their proposal and answered questions from six panellists.

"I wanted to show this is the biggest move of our life, it's life-changing," said Mr Roberts. "I tried to put across that we are passionate and hard-working and aware we'll come across hard times."

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Later that day, Mr Roberts received a phone call to say they had been successful and their 10-year tenancy would begin in October.

"It's difficult to get on the farming ladder so this is a big opportunity, and it's a privilege to be given it by the council," says Mr Roberts.

"The hardest thing is sitting and waiting, I just want to get on, hit the ground running and put our mark on it. I can't wait."

Alongside a traditional arable rotation, the tenants also hope to start an aquaponics enterprise growing salad leaves.

Mr Roberts advises future applicants to show passion, remember nothing is a substitute for hard work, and use professionals where needed.

JOURNAL : Farmers Weekly

Digital marketing and bureaucracy have changed the way farms are now being sold in the UK.

Auctions were once the preferred method and do remain a popular route for selling small farms and blocks, or in specific circumstances, such as probate sales.

But the ability for agents to reach a global audience when advertising a farm sale online has boosted the popularity of private treaties.

See also: Suffolk estate on market for first time in more than 100 years

Informal tenders are still used regularly but formal tenders – where successful bids are legally binding and must include a deposit payment – have limited appeal.

Strutt & Parker farm agent Kezia Hart said: "With internet marketing, buyers can now look at UK farmland anywhere in the world.

"Private treaty affords sellers the greatest degree of flexibility and time. They can choose to enter negotiations early or wait to compare offers.

"Previously the market would be more about local buyers and a set date for auction was the obvious method."

Richard Nocton, partner at Woolley and Wallis, said the rise in popularity of private treaty sales was also due to the increase in off-market farm sales.

"This method helps buyers and sellers negotiate and reach deals to suit both parties," he said.

He added that the level of due diligence and legal considerations meant potential buyers needed more time to prepare bids.

"There's a lot more to a farm sale than there used to be: BPS entitlements, nitrate vulnerable zones and stewardship schemes, for example.

"These details and checks take time to work through and a hard deadline for formal or informal tenders can be a barrier."

How to choose the right method for you: Kezia Hart's guide

Private treaty

Farmland is marketed, with offers invited at any time

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Sellers can choose whether to enter negotiations early or wait for competing bids

Useful for lotted sales or where buyers need to make arrangements ahead of making an offer

Flexibility means sales can be concluded by best or best and final offers

Informal tender

Set marketing period followed by a deadline for written tenders

Vendors can compare all offers on a like-for-like basis

Sellers are not bound to accept any offers and can enter further negotiations with an interested party

Offers are not legally binding

Encourages purchasers to commit to and conclude a sale, but maintains flexibility on timescales and further negotiations

Formal tender

Sale is advertised and deadline set for written bids

Each tender received includes a legally binding contract and accompanying deposit

Once a bid has been accepted, the deposit is taken and sale contracts are exchanged

Both parties are legally committed and must complete the sale on a specified date

Failure to complete means the deposit is lost and additional fees may be incurred

Rigid structure is less popular in modern markets, but rate of progression is higher due to legally binding nature

Auction

Guide price set, but farmland is sold to the highest bidder at the auction

Viewing days are held for interested parties and a legal pack is made available

The successful bidder is legally bound to purchase the property on the fall of the hammer

A deposit is usually required on the day of auction

Commission fees are due for both buyers and sellers, and both parties must complete the purchase on the stated completion date, most commonly four weeks afterwards

Purchasers must have arranged any finance and undertaken due diligence prior to the auction

Dutch auction

Rarely used for farm sales, the opening price is set high then reduces until a bidder in the room raises a hand

JOURNAL : Farmers Weekly

Controlling weeds in oilseed rape is vital for successful establishment, as the seedlings are vulnerable to competition from vigorous weeds.

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This is especially the case in a dry autumn when crops are slower to establish, with weeds robbing rapeseed seedlings of space and nutrients.

Here two agronomists in different parts of the UK outline their weed control strategies in this key break crop

View from the South

Steve Cook, Hampshire Arable Systems/AICC, South

For Steve Cook, there are plenty of cultural and chemical options for managing weeds in oilseed rape and a flexible strategy is key to using them appropriately and cost-effectively.

Applying an integrated approach, growers should firstly be thinking about how they can get plants up and away, with a healthy crop the best weed suppressor of all.

Adjusting rotation to get an early **harvested** crop in front of the rapeseed – such as winter barley or hybrid rye for anaerobic digestion – will help, allowing the use of a stale seed-bed to kill a flush of weeds, plus the application of organic manures and early drilling.

See also: How to tackle herbicide resistance in broad-leaved weeds

Direct or low-disturbance drilling will also lower the weed burden before any herbicides are even considered, by encouraging less seed to germinate with the crop.

Once seed is in the ground, Mr Cook believes growers should always be prepared to use a pre-emergence herbicide, despite flea beetle, slugs and lack of moisture threatening successful establishment.

Decisions should be taken on a field-by-field basis, assessing weed spectrum and choosing the product accordingly.

For some weeds, Mr Cook says only metazachlor will offer early control, including some activity on blackgrass, poppies, fat hen, mayweeds and shepherd's purse.

Active Ingredients

AstroKerb: propyzamide + aminopyralid

Centurion Max: clethodim

Cleravo: imazamox + quinmerac

Falcon: propaquizafop

Fox: bifenox

Galera: clopyralid + picloram

Kerb: propyzamide

strong>Laser: cycloxydim

Ralos: aminopyralid + metazachlor + picloram

Where a high cleaver burden is present, clomazone should also be considered as a pre-emergence option.

"Cleavers can be a real nightmare and options after that are limited after [clomazone]. Galera can be used in the spring, but by that time they are usually too big to be stopped," adds Mr Cook.

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Single hit

For those opting for a single post-emergence hit for broad-leaved weed control ahead of graminicide applications, metazachlor-based products can be applied up the seven or nine true leaf stage, depending on product label.

Mr Cook has also had good results with Ralos, which can be applied at pre- and post-emergence from expanded cotyledon stage up to 3-leaf stage, or before the end of September.

Programmes can then be finished off with Centurion Max in high blackgrass situations, followed by Kerb or AstroKerb for the final blow to grassweeds, plus some additional broad-leaved weed control.

"It is a concern how much pressure we are putting on these later products in some situations, so the more that can be done earlier the better.

"Although you need a lot of weeds to hit oilseed rape yield, keeping them down will help keep the combine running and growers are also used to clean fields now too," adds Mr Cook.

Key OSR weed control tips – South

Get crops off to the best start for maximum competition

Consider low-disturbance establishment for less weed germination

Use pre-emergence sprays to take pressure of post-emergence products

Don't rely on spring tidy-ups as weeds are often too large

View from the North

Peter Lindsay, SAC Consulting, Perthshire/Angus

"Start with a clean slate," is the overriding message for oilseed rape growers from Perth-based SAC Consulting agronomist Peter Lindsay, and how that weed-free clean slate is achieved will depend on the establishment system.

Some growers in the North still choose a deep cultivation or plough ahead of establishing rapeseed, but many have switched to direct or low-disturbance drilling to save time and cost.

In these situations, it is possible to use a hit of glyphosate ahead of harvest in the previous winter barley crop and/or clean up dirty stubbles before drilling oilseed rape.

Weed burden should then be low and this strategy can be enough to see growers through to propyzamide applications later in the autumn, providing a very cost-effective start to the weed programme.

Volunteers

There is one caveat, however, with Mr Lindsay mindful of volunteer cereals, which as combines become wider are becoming more densely concentrated in lines across the field, as the larger volumes of straw and chaff are more difficult to spread.

"Good chaff spreaders on the combine help, but if volunteers are not controlled with a graminicide [for example, Falcon or Laser] quickly in a separate pass, the volunteers can out-compete the oilseed rape and result in a gappy crop that allows problem weeds like chickweed to establish and take off."

Where growers are cultivating or ploughing and a larger flush of weeds is encouraged, Mr Lindsay advocates using a pre- or early post-emergence treatment.

These will be based on metazachlor and quinmerac or clomazone, depending on the farmer's nerve.

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Clomazone can cause bleaching of the crop as it comes through the ground, so despite being an effective option, some will prefer to use metazachlor-based sprays for less visible crop effect.

With less pressure on crops from flea beetle, growers in Scotland can be more confident the investment in a pre-emergence will pay, but keeping other pests at bay such as slugs and pigeons is crucial to ensure growers get a return.

“Anything that gets the crop off to a good start is key and in terms of weed control, you always end up spending more on a poor crop than a good one because of the shading effect,” adds Mr Lindsay.

Key OSR weed control tips – North

Glyphosate pre-drilling can replace pre-emergence in low disturbance systems

Always use a pre- or early post-emergence spray on cultivated soils

Cereal volunteer, slug and pigeon control key to avoid gappy crops that encourage weeds

Extra cost of Clearfield pays in Shropshire

Despite being more expensive to grow than his conventional oilseed rape crops, one West Midlands grower believes the extra investment in Clearfield varieties will pay in the long term with better weed control.

Adrian Joynt, farm manager at the Apley Estate, situated between Telford and Bridgnorth, oversees 972ha of which 526ha are combinable crops.

When the Allscott sugar factory closed in 2005 the farm needed to find a break crop to replace beet in the rotation and being the most profitable alternative, oilseed rape was the logical choice.

Since being introduced, however, brassica weeds charlock and hedge mustard have built on parts of the farm, as they are difficult to control in oilseed rape. Only Fox offers a post-emergence chemical option.

Unhappy with relying on inconsistent control from Fox, Mr Joynt decided to try two Clearfield varieties – Imperial and Veritas – in autumn 2016 across problem fields. Both are tolerant to the ALS (acetolactate synthase)-inhibiting active ingredient imazamox.

Second year

Now in the second year, he has been very happy with the results, despite the extra combined costs of seed and herbicide sprays (see table).

“We are now using a low dose of metazachlor at pre-emergence as a holding spray and go in with an application of Cleravo at the 4-leaf stage of the crop in October, waiting for as big a flush as possible,” explains Mr Joynt.

This is then followed up with a Kerb application for grassweed control, tidying up the brome and wild oats which can also be problematic.

A conventional variety with a full autumn herbicide programme, including Fox, is £22/ha cheaper than using the

Clearfield system and a non-Clearfield hybrid variety with a full autumn herbicide programme is only £4/ha cheaper, and with “fantastic” control of brassica weeds, Mr Joynt says the extra cost is negligible.

“You get less yield effect from the weeds and less risk of erucic acid exceedances. That £22 saving [using conventional varieties] doesn’t go very far if you start getting rejected loads.

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"You have to look at it across the rotation and without doubt [Clearfield] is helping to reduce the [brassica weed] burden. Yields have also been comparable to conventional varieties."

Mr Joynt adds that concerns over Clearfield volunteer control were soon dispelled, with no problems so far in the following cereal crops.

"We are using DFF (diflufenican) in the autumn in our cereals and we also have the older hormone chemistry like MCPA and CMPP to fall back on too."

The cost of Clearfield at Apley Estate

Variety

Herbicide programme

Combined cost (£/ha)

Conventional (no brassica weeds)

Pre-emergence (metazachlor)

Pre-emergence (Clomazone)

Graminicide (fop/dim)

Kerb

88

Conventional (brassica weeds)

Pre-emergence (metazachlor)

Graminicide (fop/dim)

Kerb

Fox

113

Clearfield

Pre-emergence (metazachlor)

Graminicide (fop/dim)

Cleravo

Kerb

135

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JOURNAL : Farmers Weekly

The AHDB Recommended List for winter oilseed rape has been given a makeover, with all the varieties recommended for growing in different regions of the UK now being displayed in one table.

The new format has replaced the two regional lists that existed before, where varieties were assessed on their suitability for the East/West region and the North region and ranked according to gross output.

Instead, UK-wide varieties are now separated from those recommended for the East/West region only as well as those considered suitable for the North region only.

See also: 6 varieties added to sugar beet Recommended List

As a result, it means growers have to scan three distinct categories when considering the options, as each variety only appears once in the table – even though it may be suited to growing in more than one area of the country.

Simon Kightley, oilseeds specialist at Niab Tag, explains the difference in the way varieties are displayed means there will be a transition period as growers get used to the way the list is structured.

“It’s great to get such a huge amount of data into one table,” he says. “It means it is quick and easy to compare varieties – whether that’s across the UK or in the regions.”

Star performers

However, he points out the way that the 2018-19 Recommended List is presented means the star performers are almost hidden away, as they tend to appear in the middle and right-hand sections, rather than on the left as before.

To highlight this, he points out that Windozz and Elgar in mid-table, along with Elevation, Kielder and Broadway on the right, are the standout varieties.

In addition, Alizze and Nikita are the best for all regions, but they’re not the varieties with the highest gross output.

“We’ve all got used to seeing the highest gross output varieties on the left, with the varieties then being listed in descending order,” he says. “That isn’t the case anymore.”

Finding varieties

His advice to growers using the new list for the first time is to be systematic and thorough.

“The information is all there, but you just need to train yourself to use it. You may have to go hunting to find the best varieties.”

Mr Kightley adds a visit to the AHDB Cereals & Oilseeds website gives access to all of the data in an Excel file, so it is possible to re-sort the information and rank varieties according to the criteria which are most important to your farm situation.

“It can be tweaked, so there are options for making more use of the data and tailoring it to individual requirements.”

High standards

What is clear is there are a lot of very good oilseed rape varieties and it is almost impossible to split them, he notes.

“I’ve never known a season where there is such a fantastic choice – and there could have been even more varieties recommended and included.”

To this end, the conventional type, Django, would have fitted in well to the East/West region, he believes, adding there are also a couple of hybrid varieties that were very unlucky not to make the cut.

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Working with the new format, Mr Kightley picks out the varieties he considers to be the best hybrids and the best conventionals (see 'Top OSR choices for 2018', below).

Best choices

"With hybrids, there's a clear case for Windozz, Alizze, Aquila and Wembley," he says. "They've been a solid presence and are performing well."

The conventionals have been a bit more variable, he notes, but picks out Elgar, Flamingo, Nikita and Campus as top choices for the East/West region.

For the North, the conventionals choice is even richer, with everything from Elevation down to Anastasia providing high yield potential and good agronomic and disease-resistance characteristics.

"This domination of the North region list by conventionals is remarkable," he adds.

He would like to see the agronomic data broken down by region, especially for the North region, as he believes there would be more differentiation for standing ability and maturity if a North-only data set was available for inspection.

"Of course, there may not be the depth of data to allow this, especially for new varieties."

Special recommendations

Clearfield and club root resistant varieties will also be of interest, he predicts, with lots of promising breeding material coming through the testing system.

"There aren't many of these varieties on the list at the moment, but we are going to see more of them."

New for this year is Architect, with a special recommendation for its resistance to turnip yellows virus, which has joined the list as a UK variety.

Displacing its predecessor Amelie, Architect has a gross output of 102%, putting it 5% behind the best varieties in the East/West region. In the North, it has a gross output of 99%, so lags by 8%.

"Architect represents progress and is certainly going in the right direction," comments Mr Kightley. "The resistance continues to be evaluated, which is good news for growers."

Candidates

Looking further ahead, Mr Kightley is reluctant to give a verdict on the candidate varieties, as he believes there is not enough data available on many of them to be confident of their performance.

He does, however, mention Crome, which has club root resistance. "At this stage, it would seem to be right up there on gross output. So that one is of interest."

Top OSR choices for 2018

Simon Kightley's top oilseed rape variety picks for drilling summer 2018

Best hybrids

Windozz

Alizze

Aquila

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Wembley

Best conventionals

Elgar

Flamingo

Nikita

Campus

Best UK-wide varieties

Alizze

Nikita

Newcomers

Architect – turnip yellows virus resistance, UK-wide special recommendation

Elevation – conventional variety for the North

Kielder – conventional variety for the North

Broadway – conventional variety for the North

Butterfly – conventional variety for the North

JOURNAL : Farmers Weekly

Scientists have been using near-infrared spectroscopy for decades, analysing everything from blood and tissue samples to livestock forage and grain.

But now this technology is starting to migrate from the lab to the field, with units suitable for fitting to forage harvesters, slurry tankers and combine harvesters already making their way on to the market.

These systems work by shining a beam of broad-spectrum near-infrared light at the silage, slurry or grain the operator wishes to analyse. Depending on the make-up of the sample, different amounts of this light are absorbed, reflected or scattered when they make contact with it.

A sensor within the system records the amounts of light being reflected back off the sample and compares the figures it receives against a database of samples tested in a lab.

Many samples can be taken per second, and providing the reference data is up to date, the results should be very accurate (see Limitations of NIRS).

Below we take a look at a few of the systems that are currently available.

See also: Driver's view: John Deere 8600 self-propelled forager

Forage harvesters

John Deere – **Harvest** Lab

John Deere has been the first of the major agricultural machinery manufacturers to really capitalise on the benefits of near-infrared technology.

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Its Harvestlab system has been around for several years now and when fitted to a forager is capable of measuring silage dry matter and automatically making adjustments to chop length to suit.

The latest versions will also analyse protein levels, starch, neutral detergent fibre (NDF), acid detergent fibre (ADF) and most other silage constituents.

Operators are able to view the readings while harvesting and then make the relevant adjustments to maximize feed quality. The information can also be sent wirelessly to Deere's operations centre where more detailed analysis can be carried out

The Harvestlab unit itself is mounted on the forager spout and has a lens that takes up to 4,000 readings per second from the forage as it whizzes past.

It's capable of taking measurements from maize crops as well as grass and can be removed from the harvester and used as a stationary tester for assessing forage nutrient quality during feeding. It can also be transferred to muck and slurry spreading kit for on-the-go manure testing.

The latest Harvestlab 3000 unit has a list price of £15,192.

Claas – NIR

Claas now offers a brace of NIR systems for its range of Jaguar forage harvesters – one that offers a simple dry matter reading and another capable of doing nutrient analysis.

This records amylum, crude fibre, crude protein, crude ash and crude fat. Like John Deere's version, the unit mounts through a hole on the forager spout and takes readings directly from the crop as it passes by.

This is then sent to the Cebis in-cab screen so the driver can monitor any changes in the quality of the grass. It is also possible for the information to be transferred wirelessly back to the farm office.

The list price of the complete NIR sensor kit is £19,125 while the simpler dry matter sensor is £3,520.

Dinamica Generale – NIR On Board

A third NIR option for forage harvesters comes from Italian maker Dinamica Generale.

This is the unit New Holland uses on its machines, but it's also available separately through UK importer Greenforage.

Like the Deere and Claas systems, the NIR On Board kit fits to the forager spout and uses a lens to read the forage as it passes by.

The results are displayed on a screen in the cab and can also be wirelessly transmitted to the firm's own cloud-based software system called Field Trace.

It can be installed on any make of forager and is capable of reading both dry matter and nutrient content. The kit can also be used for taking readings on slurry tankers and combine harvesters and mixer wagons.

The system has only recently become available in the UK and so far one unit has been sold, which is being fitted to a New Holland machine. Prices start at about £15,000.

Manure testing

Veenhuis – Nutriflow

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Dutch firm Veenhuis has had a busy few years developing its own NIRS system for accurately measuring the nutrient content of slurry and digestate being applied by its machines.

Now that the testing phase is out of the way, the Nutriflow system is on sale with several units working in the Netherlands and a few in the UK.

The unit itself bolts into the tanker's pipework and constantly beams near infrared light at the liquid as it passes by.

It's capable of picking up nitrogen, phosphate, potassium, ammonium and dry matter percentage, and has been calibrated using "all manor" of liquid manures to make sure the readings are as accurate as possible.

By linking this system to the spreading equipment control and GPS via Isobus, the rate can then be varied to make sure the field gets an even dose.

Accurate application maps can also be produced to show how much of each nutrient has been applied where.

It's possible to combine the Nutriflow unit with a front fertiliser tank, which can be mixed with the slurry or digestate if the nutrient content of a certain batch is too low. The system can be combined with automatic section control to prevent any overlaps, too.

The system is available through UK importer Technical Waste Solutions and has a list price of around 49,000, although this does vary depending on the machine its fitted to. Unlike some of the systems on the market this includes all of the additional equipment and calibration curves needed.

Joskin and John Deere

A number of slurry equipment makers have adopted Deere's Harvestlab system for nutrient analysis of manures, but Belgian maker Joskin was one of the first.

It has been working closely with John Deere over the years to develop an integrated system, which was launched commercially in 2017.

This uses the Deere sensor to take the nutrient readings, while Joskin's own flow meter uses the information to adjust application rates accordingly.

It's also possible to hook the system up to John Deere's tractor implement system (TIA). This allows the tanker to take control of forward speed, offering another method of automatically controlling application rates.

Operators can pick minimum and maximum values of N, P and K, and the flow meter automatically adjust the quantity of nutrients going to the distributor.

No modifications need to be made to the Harvestlab unit, but about £4,000 worth of additional parts are required to hook it up to the tanker.

Joskin doesn't sell the Harvestlab sensing kit itself, so this needs to be sourced through Deere. However, for those who already have a unit fitted to a forager, it's a 20-minute job to move it from one machine to the other.

Combine protein analysis

Next Instruments – Cropscan 3000H

On the combine front, NIRS gives farmers the opportunity to accurately measure protein, oil and moisture in cereal grains and oil seeds as they are harvested.

The Cropscan 3000H from Australian firm Next Instruments – imported by Precision Decisions – is mounted on the clean grain elevator and takes samples as the crop makes its way up to the tank.

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Samples drop into the sampling head for a few seconds while light is passed through them. A fibre optic cable then collects the transmitted light and sends it to the NIR spectrometer unit in the cab. The readings are then displayed on a touch-screen computer.

Data is collected and displayed every seven to 12 seconds and the operator can view tank averages, field averages and real-time protein maps. It can also wirelessly transfer the information to a computer.

According to Precision Decisions there are currently five machines operating in the UK, fitted to three different brands of combine. Initially, the units were used for research, but some commercial farms are now running them.

So far the data has mainly been used to identify nitrogen removal and how this affects yield. Most of this has been in milling wheat, but some work has been done in barley too.

To make sure they're giving accurate results accurate, the units receive new calibrations every year, which are specific to UK varieties. Precision Decisions has done this calibration work in conjunction with ADAS, which involved putting more than 50 samples of nine different varieties through the system.

Prices can vary depending on the machine they are being fitted to, but generally it costs about £16,500.

Techno Cientifica – Grain-Q

A similar system to the CropScan 3000H is available from Techno Cientifica, based in Buenos Aires, Argentina.

This also mounts to the clean grain elevator and continuously hives off small samples that pass by the NIR sensor.

The unit is capable of monitoring moisture, protein, starch and sugar and the readings are apparently accurate enough to tally with the instruments used by most mills.

All readings are sent back to a tablet computer in the cab and there is a built-in GPS unit to show you which parts of the field have performed best. It will also keep a record of the average condition of each tank load.

The system costs about £20,000 and is available through Master Farm Services.

Portable systems

For those who want to test field samples prior to harvesting and monitor the quality of forage during feeding, there are a number of portable NIR systems.

The Agri-NIR from Dinamica Generale fits into a small wheel-along unit and is calibrated to take readings from most types of forage crop.

All the operator has to do is load a sample into the unit, press a couple of buttons and wait 60s for the result to come through. The result can then be printed on a ticket or transferred to a computer via USB.

It does need to be plugged into a 240v power supply unless a separate DC power pack is purchased.

The company also offers a smaller hand-held system called X-NIR. This is very simple, requiring the operator to point the machine at the sample to be tested. Results are given in less than a minute and are stored on the unit. The readings can then be transferred using a USB stick.

Both of these units are available through Greenforage, based in Ingleton, Yorkshire. Prices start at £12,000.

Limitations of NIRS

A recent study conducted by independent researcher Dr Dave Davies of Silage Solutions called the accuracy of some near infrared spectroscopy testing into doubt.

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After testing 177 grass silage samples in January 2017 using both wet chemistry and NIRS analysis, he found the latter inaccurate when it came to sugar predictions.

This could lead to some farmers over-feeding expensive protein sources as a result of labs underestimating true forage potential.

Dr Davies said the failing did not mean the NIRS technique was inferior, but was reflective of the databases that labs used to predict the results.

These databases are based on historic chemical analysis and are used to predict the quality of fresh silage samples submitted using near infrared-spectroscopy, he says

Therefore, unless these databases are kept up to date, it is difficult to predict silage quality accurately.

Although his report is primarily aimed at those getting NIR testing carried out by a lab, he advised farmers to question the quality of the databases used before committing to using them.

JOURNAL : Farmers Weekly

Visitors love having the opportunity to speak with farmers on Open Farm Sunday and listen to their stories about life on the farm. It gives consumers the chance to get their questions answered and discover the truth about farming.

So if you've signed up for Open Farm Sunday, but you're having nightmares about being thrown impossible questions from the public about castrating lambs, pouring chemicals on crops and the ethical considerations of dairy farming, we've got some tips.

Firstly, don't panic it won't be nearly as taxing as you're imagining it to be. This is a great opportunity for the public to discover farming and see first-hand the fantastic work farmers do to produce food and manage the environment.

See also: Open Farm Sunday: Why you should get involved

For farmers who don't regularly speak directly with the public, this can be daunting, but the feedback from Open Farm Sunday host farmers is resoundingly positive.

The key is to follow some tried and tested top tips – especially when answering tricky questions.

By answering honestly, knowledgeably, and staying calm, visitors will leave with the understanding and trust in farming which Linking Environment and Farming (Leaf), all the host farmers, supporters and sponsors aim to promote.

These seven tips will help you when the big day comes around on 10 June.

1. Keep it honest. Answer questions honestly because your passion and knowledge for, and understanding of, farming will shine through. Openness and transparency will help to promote trust from visitors.
2. Know your facts. As well as being honest, it's important to answer any questions knowledgeably. Not only will this back up your points and opinions, facts will also help your audience leave feeling reassured and informed.
3. Stay positive and confident. Enthusiasm is infectious. Talking about all the positive things in farming and what it does for the countryside will mean your audience feels as interested in and excited about farming as you are.
4. Keep it simple. Open Farm Sunday events are for everyone, attracting a range of age groups and visitors with different levels of understanding when it comes to farming.

By keeping your language simple, interesting and succinct, and avoiding jargon, you can be sure your answers will be fully understood.

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You don't want people to leave the farm feeling confused or uncertain about why something is done or how it happens.

5. Stay calm. Yes, the thought of having crowds of people milling around the farmyard and poking around the parlour can be stressful, but try to be polite, respectful and keep your cool in all situations.

This will help you explain everything clearly, and maintain the respect from your guests, as well as avoiding any confrontation.

6. Agree to disagree. As with any difficult question or conversation, it may not be possible to reach an understanding or resolution.

Be prepared for this to happen and, if it does, find a way to close the conversation in a polite and non-confrontational way.

7. Practice makes perfect. As with most things, practice is invaluable. Ask your friends, family or colleagues to quiz you on questions that might come up on the day, and practice your answers to them.

This will help you identify the information you may need for answers, mean you're less likely to be caught off-guard by an unexpected query and you'll feel more at ease on the day.

How to get involved

Open Farm Sunday will be held on Sunday 10 June 2018. Meanwhile, Open Farm School Days – a nationwide project to get schoolchildren onto farms and learning about where their food comes from – will be held throughout June.

All host farmers receive a range of free resources and support. It is free to participate and all farmers are encouraged to join, whatever the size and scale of the event that they wish to hold.

For more information or to register your farm's participation, visit the Open Farm Sunday website.

JOURNAL : Farmers Weekly

An early application of nutrients, delivered by either a starter or traditional fertiliser product, can help to achieve quick emergence and growth of an oilseed rape crop.

At establishment, the primary focus should be on nitrogen and phosphorous to get the crop off to a good start – as both are essential for early growth and good rooting.

See also: Why phosphate fertiliser use on crops may have to change

Of these, phosphorous (P) is considered especially important; in the first 60 days after emergence oilseed rape requires about 15% of its total P requirement.

Application timing

For this reason, timing is important and there should be no delay between drilling and fertiliser application, whatever establishment system and fertiliser type is being used.

Phosphate, which is immobile in the soil, has to be extracted by the roots from a small fraction of the topsoil, which is why enriching the soil in the immediate rooting zone can help.

Nitrogen, which is often supplied by mineralisation when the soil is moved, is a key requirement at drilling in no-till systems, where this effect doesn't take place.

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Drill capability

Many drills are now able to combine fertiliser and seed at drilling or can be retrofitted to achieve this. This one-pass method of application reduces the time pressure at a busy time of year, while placing a combination of nutrients right next to the seed.

As explained previously, this is of greater importance for phosphate, which does not move in soil to the same extent as nitrogen.

The choice of specific product to use at this stage is often controlled by the capabilities of the drill. Some combine drills can cope with high rates of granular fertiliser, while subsoiler type drills are often only able to handle lower rates of microgranules or liquids.

OSR starter fertilisers

Provide key nutrients close to the seed

Improve establishment

Increase the efficiency of nutrient uptake

Meet nitrate vulnerable zone autumn N limits

Product choice

Di-ammonium phosphate (18:46:0 NPK) is the most commonly used product for this purpose.

This is an ammonium phosphate, so it provides a balanced nutrient boost and gives increased P absorption from being applied with nitrogen.

There is a proven synergistic effect on plant uptake of phosphate where nitrogen is present in the ammonium form.

Starter fertilisers used at this timing include microgranules and liquids. These are applied at low rates and are targeted at the early growth stages – they will not provide the crop with all of its nutritional requirements for the whole growing season.

The main advantage of microgranular products is the increased availability of nutrients through their greater surface area. This means they can supply phosphate much quicker than a standard granular fertiliser.

Liquid fertilisers are 100% soluble and rapidly available. In these, phosphate is supplied in the ammonium phosphate form, bringing the same combined benefits that di-ammonium phosphate offers.

Autumn nitrogen applications have to be limited to 30kg/ha where the farm is in an nitrate vulnerable zone.

What about lime?

Liming should be considered as part of a long-term strategy for reducing clubroot build-up in affected fields.

AHDB-funded work has shown that clubroot severity is linked to soil pH and crops in acidic soils are more at risk of severe symptoms.

Although the clubroot pathogen is highly resilient and will survive and infect even at high soil pH levels, soil amendments that raise the pH and calcium content of soils can be effective.

A neutral or alkaline pH (+7) is best – but this may not be beneficial for the wider rotation due to nutrient lock-up.

JOURNAL : Farmers Weekly

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An Essex sugar beet grower hopes to recapture his high yielding ways and produce one of the UK's top-yielding fields, by focusing on disease and weed control in the coming months.

In the late 1990s, David Halsall led the way on sugar beet yields being in the top 5% of farmers.

He recalls one season when he was third on British Sugar's league table of best-performing crops, when it used to publish yields.

Yields progressed less rapidly at Docuras Farm and fell back a little. That was until last season, when David and his son George broke through the 100t barrier setting a new record on their farm of 109t/ha.

See also: What the 5 new sugar beet varieties offer

This season, the father and son team hope to push even further and get back into the top 5% of growers, although they recognise the late spring means some potential yield has already been lost.

They were fortunate to start drilling on 23 March although the wet cold spell meant the rest of the area had to wait until a month later.

Another consequence of the difficult spring was crops did not receive a pre-emergence herbicide. Despite this, weeds have been successfully dealt by two post-emergence applications in May (see 'Four diseases of sugar beet to look out for and their symptoms', below).

Disease management

Once into late June, the focus switches to disease and there are four key foliar diseases that can affect sugar beet, rust, powdery mildew, ramularia and cercospora.

"Rust is the main disease to look out for, as mildew is being seen much less frequently these days," says independent expert Mike May. Powdery mildew used to be the main disease, before being displaced by rust a few years ago.

Azole fungicides give good control of all four, however timing is critical. "Don't let disease get established, monitor crops from June and spray at first signs, usually in July."

While rust is something the Halsall's are familiar with, one disease they have yet to see is cercospora.

This is a relatively new disease that is spreading in the UK. It's currently further north, but could spread rapidly, as Mr May points to the Dutch situation where it spread through the country within five years.

Bayer root crop campaign manager Edward Hagues says some growers were caught out last year, as rust came early. "Farmers treated crops and then left a large gap between sprays; which then let in rust."

Mind the gap

Therefore, the message is to avoid stretching the gap too much to the second fungicide. "Try to keep the timing to four weeks."

The Halsalls follow the British Beet Research Organisation approach with the early lifted (October) crop getting one fungicide while the later lifted area gets two applications.

Mr May says good coverage is important and so is spray volume, as some farmer who cut back on volume saw some problems last year.

David and George follow best practice typically applying 200-250 litres/ha. And being potato growers, they use Defy nozzles to get good coverage with alternating forwards and backwards facing jets.

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Four diseases of sugar beet to look out for and their symptoms

Rust

Rust appears on both sides of the leaf as small 1-2mm diameter raised pustules that are red-orange or brown in colour.

Disease spreads during periods of moist weather when temperatures are between 15C and 20C and most intense when dew persists for long periods

Can be seen early June onwards

Heavy infections in late August can reduce yields by 10% or more

Cercospora

Appear as small round grey spots with reddish margins

Under humid conditions, black dots appear through the stomata which help distinguish it from ramularia

Can cause severe damage

Ramularia

Appears first as brownish grey spots with dark edges

Prefers cooler conditions (about 17C) than powdery mildew and infection only occurs when humidity exceeds 95%, so mainly seen, usually at low levels, September onwards

Seldom causes significant yield losses in the UK

Powdery mildew

Characterised by white powdery covering of leaves

Older leaves tend to be infected first and symptoms more prevalent on upper leaf surface

Growth of fungus favoured by high temperatures (about 20C) with dew at night

Farm facts and beet weed and disease strategy

Area 320ha total, 35ha of sugar beet

Cropping Winter wheat, winter malting barley, potatoes and sugar beet

Soil Sandy loam

Weed strategy

First application on 6 May – Safari Lite (lenacil + triflurosulfuron) + Betanal Elite (desmedipham + ethofumesate + phenmedipham) + Goltix (metamitron).

Second application on 17 May – Betanal Elite (desmedipham + ethofumesate + phenmedipham) + Goltix (metamitron).

Third optional application with clopyralid to take out any volunteer potatoes.

Disease (last season)

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First application on 27 July of Escolta (cyproconazole + trifloxystrobin)

Second application for late lift only of Armure (difenoconazole + propiconazole

JOURNAL : Farmers Weekly

Farm pickups are subject to a notoriously rough and loveless life, but patching them up with second-hand spares can push them a few years beyond their sell-by date without costing the earth.

There are several specialist 4x4 breakers dotted around the country (though predominantly in northern England), including MJM in Hull, A1 in Heywood, Lancashire, and CWS in Glastonbury, Somerset.

While these can all offer a pretty good range of parts for everything from Suzuki Jimnys to BMW X5s, Thornton 4x4 Breakers based in Halifax, West Yorkshire, specialises in pulling apart single- and double-cab pickups built from 2000 onwards.

It has close to 1,000 pickups and Land Rover Defenders in various states of undress, all stacked three-high across huge lengths of cantilever racking, along with thousands of other spares stored on shelves.

Having celebrated 30 years in the breaking trade last year, owner Peter Jones knows a thing or two about squeezing every last penny from a crumpled motor.

See also: Pickup test: 6 farm trucks compared

Sourcing the trucks

Everything that is dragged into Thornton's yard has been written off by insurance companies as a category B-graded vehicle, so can be stripped of its working parts but not restored and returned to the road (see "Insurance write-offs – what you need to know").

Once written off, the vehicles are sent to auctions, where buyers from all over the world scrap it out for the best bargains.

UK firms have the advantage of lower transport costs that eat into potential profit, but many of the foreign bidders are based in countries where cat B write-offs aren't recognised, so they can get the trucks patched up on the cheap (rather than breaking them) and sell them in "roadworthy" condition for a healthy margin.

Up to 20 motors arrive at Thornton's 2.5ha site each week, 90% of which have a decent engine and gearbox that is removed and put into storage.

Non-runners are stripped for the good bits – the core block, injectors, turbos and fuel pumps – that can be used on reconditioned engines or sold as spares.

With the engine and gearbox checked, cabs are removed, chassis stripped and wheel/tyres salvaged, though it usually takes a couple of vehicles to assemble a sellable set.

In all, very little goes to waste, aside from beaten-up body panels and smashed windows.

The company uses a clever computer management system to keep tabs on the millions of individual parts stored on site.

Once the chassis number is typed in, it populates a full list of parts fitted to each vehicle, as well as automatically loading them straight onto eBay.

It means the team knows exactly what is on the shelves at any one time and helps track whether there is an excess of any particular items that might influence pricing in the future.

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As well as selling parts to the UK, the company regularly packs up 40ft containers destined for the tropical shores of Trinidad and Tobago, Greece and Dubai.

This tends to be the pre-2005 stuff, with newer parts reserved for the UK market.

Discount engines

There are plenty of incentives to buy second-**hand** parts, with price and lead time the two most convincing factors.

Take a popular farm truck such as Isuzu's D-Max, for instance. The 2.5-litre engine it ran until last year can cost more than £6,000 to replace new and has a lead time of about three months, which isn't particularly handy for a vehicle relied upon daily.

Added to that, the price is for a short motor (head and block), so you will still have the arduous task of stripping the old engine and fitting all the ancillary parts.

However, a second-hander could be sourced for £2,500 and fitted a few days later. Throw another £400 at it and Thornton's will collect your vehicle and fit the engine, too.

Though the D-Max block is a good example, it also happens to be at the higher **end** of the price list because it's so popular.

Less-common engines tend to be cheaper: expect to pay closer to £2,000 for the Toyota Hilux's three-litre, or £1,500 for a Nissan Navara D40's 2.5-litre.

Comparatively, Land Rover Defender spares are now astronomically expensive. Car values are soaring, which means they are very rarely written off and the supply of parts has all but vanished.

Body panels are like hens' teeth, so while a Mitsubishi L200 door might be £50, a Defender's is more like £450.

Car insurance write-off categories – what you need to know

The Association of British Insurers (ABI) updated its industry code of practice – known as the salvage code – on 1 October 2017 to take into account the increasing complexity of new vehicles, which makes it harder for damaged cars to be safely repaired.

In general, a write-off includes any vehicle deemed to have sustained enough damage to be unsafe on the road, or one that is still safe to drive, but uneconomical to repair.

The latter is based on a repair-to-value ratio that varies between insurers and is calculated by taking into account the vehicle's condition and the collision damage it has sustained.

There are still four write-off categories that are graded in severity from pure scrap to repairable cosmetic damage.

Previously, this ranged from A to D. The last two of those (C and D) were governed by the insurance company's estimated cost of repair, which has risen significantly because cars are so complicated.

This means they are more frequently being deemed write-offs, despite being perfectly safe and usable.

However, while A and B grades remain proper write-offs that are not suitable for repair, C and D have been replaced by two new categories – S and N.

These are designed to shift the focus from the cost of repair to the actual problem, highlighting any structural damage that must be properly dealt with if the vehicle is to remain on the road.

Here's a quick guide to the different classifications:

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A – Scrap only. These have to be crushed and salvageable parts must be destroyed. Fire damage is a good example.

B – Break. Seriously damaged, but parts are salvageable. These should never re-appear on the road, but reclaimed parts can be used in other road-going vehicles.

S – Structurally damaged but repairable. These have suffered damage such as a bent or twisted chassis, so the damage is more than cosmetic and needs to be professionally repaired – it won't be safe to drive until then.

N – Non-structurally damaged and repairable. These are likely to have cosmetic or electrical damage that makes the vehicle uneconomical to repair, but both S- and N-grade vehicles can be sold on back to the original owner or a third party.

JOURNAL : Farmers Weekly

Testing for wormer resistance is vital to enable farmers to put effective worm control plans in place.

Wormer resistance costs the UK sheep industry £84m each year. Almost all farms (94%) are thought to have resistance to white wormers, 68% to yellow wormers and more than 50% to ivermectin-type drenches.

Most recently, resistance to the newer monepantel (orange drench) has been reported.

Vet Dave Armstrong from Zoetis talks through how and why you need to test for resistance in your flock.

What is resistance and why is it a problem?

A farm has resistance problems when a product is not killing at least 95% of worms. Above this level production losses will be minimal.

However, below this effectiveness, there will be production losses. It is only when resistance is at about 50% that clinical disease will be notable.

Reduced drench performance due to resistance leads to more worms surviving and, ultimately, reduced lamb performance, which is why it is so costly.

For example, it could take only five weeks for a weaned lamb to put on 10kg from eating 65kg of feed if worm control is effective. However, if worm control is ineffective, it could take 14 weeks to gain the same weight, with double the amount of feed consumed.

Zoetis has developed a Drench Check app that can be downloaded for free from the Apple App Store or Google Play Store. This app uses the latest UK resistance data or bespoke farm data to clearly highlight the return on investment of using the right wormer, to help farmers create specific drench plans.

To get the most out of the app and put together effective worm control plans with their vet, farmers need to know the resistance status on their farm. The easiest and crudest way to do this is to perform a post-drench faecal egg count test, to check worms have been killed post treatment.

How to carry out a post-drench FEC

Summary of the wormer groups

Group 1: White - BZ benzimidazole

Group 2: Yellow - LV levamisole

Group 3: Clear - ML avermectin/moxidectin

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Group 4: Orange - AD monepantel

Group 5: Purple - SI derquantel

Step 1: Collect samples

The first thing to do is to take faecal worm egg counts from a pooled sample of 10 lambs that have been wormed.

These samples must be taken 14 days after treatment for all wormers, except the yellow group, from which samples must be taken seven days after treatment.

You can do this by collecting random fresh faecal samples (less than one hour old) from the group and storing them in an airtight container or plastic bag in a cool place. The samples should be examined within 48 hours.

Step 2: Analyse results

If there is a positive egg count after treatment, this would indicate either a potential resistance problem or the lambs may have been underdosed. It is important to remember a negative sample does not mean there is no resistance; there may have been no worms present before treatment.

Step 3: Further investigation

If you suspect some level of resistance, further investigation may be required.

This can involve conducting a faecal egg count reduction test (FECRT), where the wormers in question are tested against a control. Samples are taken before and after treatment to determine a percentage reduction. More sheep need to be involved in this and it is best to speak to your vet or adviser about conducting these tests.

It's important to remember that before reaching for any product, you must know what is happening on your farm and work with your vet, SQP or adviser to devise specific worm control plans. <

More information

Get more information and resources on worm control, including a guide on using the Drench Check app online. You can also keep up to date with real-time worm patterns from farms across the country.

JOURNAL : Farmers Weekly

Britain's biggest farming company, Velcourt, spent an economical £90/ha keeping its 16,000ha of winter wheat free of serious disease last year, and this season the spend is set to be focused on later sprays.

The wet spring has led to many of the group's wheat crops missing out on an early-season T0 fungicide, so subsequent T1 sprays have been beefed up, meaning this season's spend is unlikely to be down.

See also: Crop Doctor: Septoria lurks, ready to strike in a wet May

The rainfall in May and how it may encourage the wet-loving septoria will determine the total fungicide seasonal spend.

At the moment the plan is to apply a robust SDHI-based T2 fungicide, as this is where the biggest yield effect can be seen.

Ryan Hudson, one of the group's agronomists, says the target spend for wheat fungicides is £80-£100/ha, while the average spend on first feed wheats over the past 16 years comes to less than £100/ha, albeit with a large variation.

However, he is cautious about this season, with one eye on the weather, especially with some varieties having well-known disease weaknesses.

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“Warmer weather will speed up the development of septoria, so we are most likely to use a robust SDHI-led fungicide at the T2 flag-leaf stage,” he told Farmers Weekly.

There is no group budget for wheat fungicide sprays, with each farm's individual budget taking into account specific factors.

The overall result is that yields were just shy of 10t/ha across all the group's first wheats last harvest.

Disease strategy

Planning for the group's disease strategy is based on variety choice and drilling date, with the focus on more septoria-resistant wheats. Drilling dates are also being pushed back.

“We have clearly moved towards better, more septoria-resistant varieties such as Skyfall, Siskin and Graham, while we are also looking at Sundance,” Mr Hudson says.

Brian Redrup, the company's farms director for the Midlands region, says drilling date is dictated largely by blackgrass, and where this grassweed is a problem, delayed drilling is a must. An added bonus is that it also helps limit disease development.

“We drill relatively little of our 16,000ha of wheat in September, with most sown in early and mid-October,” he says.

With an eye on resistance to the SDHI fungicides, the group's budget includes just one SDHI, but this season the single-SDHI strategy may not be the best approach and two are most likely to be used.

Typical fungicide actives

Adexar SDHI fluxapyroxad + azole epoxiconazole

Ascra SDHIs bixafen + fluopyram + azole prothioconazole

Aviator SDHI bixafen + azole prothioconazole

Elatus SDHI benzovindiflupyr + azole prothioconazole

Librax SDHI fluxapyroxad + azole metconazole

Keystone SDHI isopyrazam + azole epoxiconazole

Vertisan SDHI penthiopyrad

Late, wet spring

This season, the late, wet spring prevented many T0 azole-multisite fungicide sprays being applied, saving about £10/ha, and this has seen the cost of T1 sprays pushed up to compensate, and many have included an SDHI.

“Where T0s have not gone on, a more robust T1 has been applied as we look to use the strongest products when the disease pressure is the highest,” says Mr Hudson.

Although an SDHI is not budgeted at T1, this year – given the rainfall, the likely latent septoria in crops and the absence of a T0 – the T1 will generally be more robust and an SDHI-azole-multisite mix.

Mr Hudson emphasises that the group generally plans for one SDHI to try to manage SDHI resistance as well as spend per hectare, but this season may result in two SDHIs being used in mixes with azoles and multisites to keep on top of septoria in the wet weather.

Missed sprays

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Where T0s sprays were missed this season, T1 applications were slightly early at 50% of leaf three emergence.

Therefore, a multisite T1.5, aimed at leaf two emergence, may be used to ensure the T1 to T2 interval is not stretched beyond three-and-a-half weeks.

But with the season developing so quickly and flag leaf sprays likely to be applied in the third week of May in most of southern and central England, the gap between T1s and T2s may be about three weeks and a T1.5 may not be needed.

Traditionally, the biggest fungicide cash spend comes with the T2, as this has given the best return on investment of all the sprays, and so an SDHI-azole-multisite approach is likely.

Again an SDHI-led approach may be followed for septoria, and where varieties have key weakness, such as Crusoe with brown rust and Reflection with yellow rust, T2 fungicides with added activity against rust will be used.

This approach gives very good control and persistence against rust diseases, and is used to protect against rapidly cycling brown rust hitting susceptible Crusoe milling wheat crops.

May weather

However, if the weather in May turns dry, and for varieties with good septoria resistance such as Siskin, Graham and Sundance, an azole-multisite approach may be followed, especially if crops have been drilled late after root crops and are thin, with a low yield potential.

"If conditions become very dry, with late-drilled resistant varieties where the disease pressure is lower, we may not automatically use an SDHI at T2," says Mr Hudson.

"This year, many late-drilled crops did not tiller well and look too thin and we will have to assess the septoria risk to those crops," he adds.

Differences in nitrogen fertiliser timings are quite apparent in crops and where nitrogen was applied in mid- to late February, tiller survival has been greater and the crops look healthier.

Crops where ground conditions did not allow the first nitrogen to be applied until late March or early April have suffered, with thinner plant stands in some cases, resulting in increased susceptibility to disease.

SDHI resistance

The group is well aware of the risk of SDHI resistance to septoria. Indeed, it found in its own monitoring that 26% of septoria isolates gathered carried an SDHI mutation, compared with 17% in 2017 and zero in 2016.

Therefore, Mr Redrup emphasises the group's aim is to optimise production over a number of soil types, but still take into account factors such as septoria resistance and the yield potential of crops.

"We can't insurance spray against every eventuality, but fungicide spend of £80-£100/ha is where we would like to be," he adds.

Velcourt

The group farms 52,000ha of land under a variety of management arrangements stretching from the Moray Firth in the north of Scotland to Devon in south west England with a focus on arable and dairy farming.

Velcourt's agronomy service also advises on 29,000ha of additional arable land through its agronomists and some of its farm managers.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Growing willow is a diversification option that can earn farmers up to £618/ha (£250/acre) a year and help protect land against flooding and soil erosion.

At Langwathby Hall Farm, near Penrith, Cumbria, farmer Simon Peet has been growing willow for a year and has planted over 16ha (40 acres) on his 100ha (250-acre) farm.

His land runs along 1.25 miles of the River Eden, which floods every year, meaning he is unable to grow crops or graze it during the winter.

See also: Video: How Gloucs farmers are working to prevent future flooding

During Storm Desmond in 2015, 6,000t of gravel was deposited on Mr Peet's fields, with the damage to land and fences stretching to almost £40,000.

As a result, he looked into planting willow, which has been found to lessen the effects of flooding and reduce soil erosion.

Mr Peet says: "We are always looking at ways we can diversify our business and willow offered us an opportunity to earn some decent money on land that we can't crop in the winter or graze with livestock. It has also been found to help stabilise the soil and slow the flood water, which reduces the damage."

Working with paperboard manufacturer Iggesund Paperboard, Mr Peet last year planted 6ha (15 acres) followed by an additional 10ha (25 acres) this year, with a further 12ha (30 acres) to be planted next year.

Igesund provides farmers with long-term contracts for growing willow to fuel its biomass boiler at Workington in Cumbria.

Establishing willow

Planting willow is no different to planting any other crop. To establish willow, fields should be sprayed off with 5l/ha of round-up, ploughed and then power harrowed in the autumn, and a cover crop added before planting the willow in the following spring/early summer. The ideal soil pH should be between 6.5 and 7.

The cuttings are 20cm when they are planted. They are established in a twin-row format, meaning the machines used to **harvest** can go over the same tram lines, thus reducing soil compaction.

The aim is to produce 15,000 cuttings/ha. After the crops have been planted there is very little more that needs doing.

"Essentially you can just shut the gate and leave the willow crops for three years," Mr Peet told farmers at a meeting organised by the Cumbria Farmers Network earlier this month (12 June).

It cost him £1,200 an acre to establish, with returns expected to be about £618/ha (£250/acre) a year depending on acreage grown, yields and distance to the mill.

Once willow is established, it is **harvested** every three years, with the life expectancy of a willow plant expected to be 25+ years. If the land floods, **harvest** can be rolled over to the following year at no loss to the grower.

Varieties

A mixture of 6-8 varieties of willow are used, but it's mainly willow shrub hybrids that are planted.

Igesund's alternative fuels manager Neil Watkins explains: "We only use varieties that have no known disease and have been thoroughly trialled and tested with performance test data to back them up."

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"Their tapping roots spread sideways rather than down, which provides a good matting, keeping the soil together and not causing any destruction to drains."

Mr Watkins describes willow as the UK's equivalent of bamboo. "It's fast growing and high yielding with expected yields of 9-14 oven-dried tonnes (ODT) a year.

It can grow on even some of the poorest land or good land and is a very low input crop," he says.

Mr Peet says even though the oldest willow crop on his farm is only one year old he has already seen the benefit of reducing the flood damage.

"Normally when the River Eden floods we lose some fences. This year when it flooded, one of the fences that always goes didn't, so it must be doing something," he says.

Contracts

Mr Peet is contracted to sell the willow to Iggesund, which supports him throughout the process. The farmers buy the cuttings with help from Iggesund, which covers the cost and organises the harvest and haulage.

"We have special machines that can harvest willow. Rather than using a middleman to harvest and transport the crop, we deal with the farmers directly, so everything is transparent," says Mr Watkins.

The crop is chipped straight away when it is harvested and transported to the biomass plant rather than being cut whole and then stored on the farm. Growers are paid per green tonnage.

Willow and sheep

Trials at Iggesund's own willow plantation in Workington, where sheep graze in between the willow, has seen some success, explains Mr Watkins.

"Over the year before harvest we've had 20 ewes with twins grazing among the crop. The sheep grazed it cleanly without damaging the willow. It also offered protection to them when it was cold and windy and was a good shelter for the lambs," he says.

The benefits of willow

Not only can willow provide farmers with an income on land that may not have returned a penny, there are plenty of other benefits:

Horizontal growing roots help reduce soil erosion and improve soil infiltration

Can generate income from poor quality land, so is a good diversification option

Grows in most UK soil types and climates

Improves local air quality

Provides natural flood management as it slows the water (hydronic roughness)

Can be used as biosecurity barriers

Provides shelterbelts and windbreaks in winter for large arable growers or livestock

Early pollination sites for bees (good mix with arable crops)

Minimal input needed to maintain crop

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Potential to graze lowland sheep and Mules in year three of **harvest** crop. Worm risk will be low as land will be clean as not grazed for two previous years.

Eligible for Single Farm Payment as it's considered a greening crop

Did you know?

One hectare of willow wood chip has the same energy content as 4,500l of home heating oil. It will also yield at least 14 to 30 times more energy than is needed for its production.

How does willow help reduce flooding?

The Environment Agency has described the function of willow plantations in their use for flood management like a 'green leaky dam', used to slow the speed of water across the floodplain.

Willow has the highest ability to increase hydronic roughness, which means a willow plantation slows water down from entering watercourses for longer and catches sediment.

Floodplains comprised of entirely short grazed grassland do not provide much roughness and it's the roughness – whether it's willow, large boulders, trees, walls or hedges – that slows the speed of water as it flows over the floodplain.

This means it can also reduce the amount of debris the flood water carries.

JOURNAL : Farmers Weekly

A huge sinkhole the length of two football pitches and the depth of a six-storey building has appeared on a New Zealand farm.

A farmer discovered the 200m-long and 20m-deep chasm when he was rounding up cows for milking.

It appeared on land near the North Island town of Rotorua, triggered by several days of heavy rain, and experts believe it could be the biggest ever seen in the country.

See also: 7 of the biggest farms in the world

Colin Tremain, the farm manager, said the area often develops sinkholes, due to degrading limestone rock beneath the ground's surface, but never of this size.

Mr Tremain said: "We'll keep it fenced off as it is to keep stock out, although stock aren't stupid – they're not going to walk into a hole. They can spot danger."

GNS Science volcanologist Brad Scott told New Zealand news service Newshub the sinkhole was three times larger than any he has seen before.

He said it is likely the hole had been forming unnoticed for up to 100 years.

Mr Scott told TV New Zealand that at the bottom of the hole he could see "the original 60,000-year-old volcanic deposit that came out of this crater".

JOURNAL : Farmers Weekly

There have been more than 200 further job losses from Countrywide Farmers as administrators acted to shut stores they say have no prospect of sale as a going concern.

The total redundancies now stands at 240, after 208 staff from the former agricultural retailer were added to the 32 let go in March.

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The fresh losses came from the company's Evesham headquarters, the Defford logistics centre and 11 stores which will stop trading on 20 May.

See also: Wynnstay acquires 8 Countrywide stores

But 169 employees kept their jobs after it was confirmed 14 other stores will stay open under new ownership.

David Pike, partner at KPMG and joint administrator, said he was hopeful a further four stores may still be sold as going concerns.

Eight stores were confirmed as being sold to Wynnstay on 30 April, and Mole Valley Farmers chief executive Andrew Jackson told Farmers Weekly this week his company has bought four.

Mole Valley initially made an offer for all 48 stores but the deal was blocked by the Competition and Markets Authority in February over concerns prices would rise in the South West because of insufficient competition.

Mr Pike said all affected staff have been informed and will be paid to and including their last day of employment.

Records submitted to Companies House show the accountancy firm will be charging a total of £2.1m for their work in winding the company up at an average hourly rate of £356/hour.

JOURNAL : Farmers Weekly

Farmers and landowners should review their succession plans, say advisers, as the government in turn reviews how inheritance tax (IHT) works.

The Office of Tax Simplification (OTS) has issued a call for evidence and launched a survey on IHT, having been asked by Chancellor Philip Hammond to examine the regime and how it may be simplified.

See also: Video: Estate comes to market as family leaves farming after 70 years

While accountants are extremely cautious about the likely outcome of the review, they say this is a good prompt for farming families to review their IHT position, succession and retirement plans.

Agriculture benefits from up to 100% relief from IHT on qualifying assets through agricultural property relief (APR), with the result that proper organisation and planning can mean no IHT is due on many farms and estates.

Scope of the Office of Tax simplification review

The process of submitting IHT returns and paying any tax

Gifts rules including the annual threshold for gifts (up to £3,000 with no IHT due), small gifts, their interaction with each other and the wider IHT framework

Other administrative and practical issues of routine estate planning, compliance and disclosure

Complexities arising from the reliefs and their interaction with the wider tax framework

The scale and impact of any distortions to taxpayers' decisions, investments, asset prices or the timing of transactions because of the IHT rules, relevant aspects of the taxation of trusts, or interactions with other taxes such as capital gains tax

The perception of the complexity of the IHT rules among taxpayers, advisers and industry bodies

"It's a very benign regime for agriculture and if people are minded to leave assets to the next generation, then it may be best to do so before people start changing the rules," said Rob Hitch of Cumbria accountant Dodd & Co.

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In almost every Budget of the past 20 years there has been a degree of nervousness about possible changes to IHT reliefs.

While much of the Chancellor's target was the administration of the tax, there was perhaps a warning shot for landowners, said Mr Hitch, referring to the OTS also looking at how gift rules interact with the wider IHT system.

Inheritance tax facts

Introduced in 1988, replacing capital transfer tax

Charged at 40% but only on any value above the personal 'nil rate band' of £325,000 for an estate

Raises about £5bn/year

Annual gift exemption of £3,000 (same for past 30 years)

Agricultural property relief and business property relief offer up to 100% relief from IHT

It will also consider whether the current framework causes any distortions to taxpayers' decisions surrounding transfers, investments and other relevant transactions.

Even if a farmer or landowner does not expect to make changes in terms of passing on assets, it is good practice to regularly review and understand what the tax position would be in the event of a transfer or a death.

The more diversified a business is, the more important it is to perform such a review, as diversification can take assets outside of the scope of APR, although business property relief (BPR) may still be available, also at up to 100%.

Carlton Collister of tax adviser landtax said farmers and landowners needed to be aware changes were likely as a result of the review. "It is speculation at this stage what form those changes might take and the timescale," said Mr Collister. "However, If one considers any changes to the current favourable tax treatment for APR and BPR are likely to detrimental, the timetable for the consultation reporting back in the autumn provides a reason to carry out succession planning that is currently being worked on before the date of the autumn budget."

The budget is expected in late November or early December and while the OTS will make recommendations, the Chancellor is responsible for final decisions on tax policy.

The OTS wants to hear from anyone with experience of the system including farmers and their advisers.

Advice on inheritance tax reliefs for farmers and landowners

Eligibility for agricultural property relief (APR) depends on assets qualifying – in general this means that they must have been owned and occupied and used in agriculture by that owner for at least two years. Alternatively they must have been owned for seven years and may have been used by another person for agriculture during that time.

Where APR is not achievable, then business property relief (BPR) may be available but accountant Saffery Champness warns that entitlement to BPR can be jeopardised when land or property is let.

Two cases from 1999 and 2010 determined that where more than 50% of a property consists wholly or mainly of making or holding investments, that property would fall outside the scope of BPR.

Furnished holiday lets are often denied IHT relief as they are deemed primarily to be investment businesses unless a certain level of service is included in the lettings.

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There has also been a number of cases relating to caravan parks, grazing land and commercial property and in most of these the taxpayer's BPR claim has failed unless there is evidence of a significant related trading element, warns the firm.

Saffery Champness also cautions not to make significant changes without checking out whether these may affect the position with regard to other taxes.

How to respond

Email ots@ots.gsi.gov.uk or write to: Office of Tax Simplification, Inheritance tax review, Room G/41, 1 Horse Guards Rd, London SW1A 2HQ

JOURNAL : Farmers Weekly

A tracked version of JCB's novel Teleskid skid-steer with telescopic boom is now available in the UK.

Like its wheeled sibling, power is provided by a 4.4-litre JCB Ecomax engine developing 74hp together with a 90 litres/min hydraulic system as standard.

Hydrostatic drive offers a modest forward speed that is limited to 13kph and it runs on 450mm-wide rubber tracks.

JCB says the 3TS-8T handles in a similar fashion to a regular skid-steer, with the obvious perk of being able to use the extending boom to load muck trailers or stack bales.

See also: On test: JCB Teleskid v Norcar a7545 mini pivot-steer

The tracked model is actually able to lift more than the wheeled version because it weighs around 1.3t more. Rated lifting capacity is 732kg when the boom is at full extension, maximum height is 3.8m and forward reach at ground level is 2.25m.

Boom suspension is standard, as is a self-levelling headstock and a seven-way joystick in the cab.

The asking price is £59,543.

JOURNAL : Farmers Weekly

If you're great with people, enjoy getting stuck in to solving problems and have a good working knowledge of farming then a job working as a calf specialist could be ideal for you.

An analytical brain will come in handy as you'll need to get to grips with recording and tracking cattle performance and strive to hit farm targets for calf growth rates, nutrition and disease management.

Farmers Weekly asked calf specialist Eimear Diamond to give some insight into her role.

Fact file

Name Eimear Diamond

Age 26

Job title Calf specialist

Company Wynnstay Group

See also: View more job profiles and agriculture careers advice

Sum up your job in a sentence or two

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My job involves providing advice on calf health, nutrition and management to dairy and beef farmers, mainly within the farm setting.

I also help with monitoring farm performance through the recording of key performance indicators (KPIs), which supports on-farm decision making and helps achieve targets.

What does this involve day-to-day?

I spend a lot of my time visiting beef and dairy farms and providing consultation and support. Farmers often request advice if they feel they're not achieving target performance, such as the desired growth rates in their calves.

I'll help set targets and provide suggestions that will help reach them, looking at key areas including calf nutrition, disease management, housing and the environment.

What do you most enjoy about your job?

I enjoy making a difference. When I make suggestions for changes in calf nutrition or housing for example, and I then go back to weigh the calves and can see an increase in daily liveweight gain or reduction in disease incidence, and I feel a real sense of achievement.

Historically, calf nutrition has centred around dairy calves, but I have a personal passion for the beef industry, so I also enjoy working with beef rearers and having the flexibility in my job to share my knowledge with both sectors of the industry.

What can be the downsides?

I consult over quite a large area of the country, covering the south-west region, including Devon, South Somerset, Dorset, South Wiltshire and Hampshire, so time away from home can be an issue.

What percentage of your job is office-based?

I'd say that 10-20% of my time is spent in the office. The rest of my time is spent out working with customers on-farm, helping find solutions to problems or ways to optimise performance.

What skills and qualifications are essential to the job?

Good interpersonal skills are key in my role. When you're interacting with farmers every day you need to be a good listener.

Problem solving skills are also essential for this role. The ability to walk on to a farm with an issue, dig down to find the cause and provide a solution is vital. It's much more about the person than qualifications.

What experience did you have before starting?

I grew up on a beef farm in Northern Ireland and went to study Animal Behaviour and Welfare at Bristol University.

From there, I worked for a meat processing company for two years before joining Wynnstay. I love the contact I get with farmers, and the diversity of farms I see on a daily basis.

What tips/advice would you give to someone wanting a similar role?

Be open minded. In an advisory role there is no 'one size fits all' approach. Go on to each farm with no pre-conceived ideas of what they're doing right and wrong.

You will come across scenarios where what the farmer is doing, in theory, should not work as well as it does. But, if it works well for someone, then you might have something to learn from them.

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The agricultural industry is ever-changing and growing, and you can never have too much knowledge, so be hungry for new information and research, and be willing to pass it on.

Give us an idea of salaries in the sector

Packages start from £19,000 for a trainee position, with performance bonus incentives and fully expensed company vehicle.

What's the best bit of career advice you have ever been given?

Be nice to everyone and never assume you know more than anyone else.

JOURNAL : Farmers Weekly

John Deere's basic Greenstar receiver StarFire iTC, which was introduced in the late 1990s and has not been sold in the UK since 2010, will receive its final phase-out on 1 June 2018 and will no longer receive support or updates from dealers.

See also: 6 budget GPS guidance system options for farmers

The receiver will still operate as normal but activations will no longer be transferable on to newer domes, such as the StarFire 3000 and 6000 models, with the company's decision being influenced by the limited features the iTC model offers in comparison with the modern offerings.

Current users should get in touch with their dealers to discuss their future requirements.

JOURNAL : Farmers Weekly

There's a new face in the Kawasaki Mule line-up – the mid-range Pro-MX, which sits between the firm's short and skinny Mule SX and the top-spec Pro-FX.

The new model is set to go on sale next year and is powered by a 700cc single-cylinder engine running through a CVT transmission.

The most interesting part of the design, says Kawasaki, is the elasticity of the main frame that offers far more flex than usual to deliver better handling and help extend its life when working over rough terrain.

See also: Buyers guide to ATVs and UTVs

Payload capacity is 317kg and it'll tow 680kg, which is about par among popular farm UTVs.

Power-steering is standard on all but the entry-level model, while the turning circle is 8.4m and it comes with disc brakes and independent suspension front and rear, a bench seat and tilt-adjustable steering wheel.

Excitingly, doors are standard too. There's no word on price yet, though.

JOURNAL : Farmers Weekly

Good variety selection, improved soils and the use of seed dressings has paid off for Kent grower Terry Metson by keeping take-all at bay and lifting his second wheat yields to match those of his first.

The arable farm manager for FGS Agri farms 809ha around Pluckley on soils which range from pure sand to loamy clay, and is achieving around 9-9.5t/ha for both his first and second wheat crops.

Despite a fairly serious blackgrass problem across the mainly rented land, wheat remains an integral part of the rotation, which consists of two wheats and then a break crop of either oilseed rape, beans, maize or spring oats.

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This is largely due to Mr Metson successfully managing the risk of take-all, the soil-borne fungus which is endemic across the UK and can cut yields by as much as 50%.

See also: The 9 foundations of second wheat success

Variety selection

His approach has three key elements: variety selection, soil management and the use of seed dressing. This season Mr Metson is growing two varieties which have a proven track record as second wheats – Skyfall and Zyatt.

While data is somewhat limited on second wheat performance, some have been shown to consistently deliver as second wheats and this should be the deciding factor, not their performance as first wheats.

A good second wheat will be a vigorous grower in the autumn to build root architecture which can cope with a dry season later on.

This early growth is crucial as root function will be impeded by the fungus as levels in the soil increase, leading to necrosis of the roots and limiting water and nutrient uptake.

Mr Metson also tries not to exacerbate the take-all problem with his first wheat varieties.

KWS product development manager John Miles says that while the theory is still in academia, there appears to be a relationship between how first wheat varieties cope with take-all themselves and the level of the fungus being built-up in the soil, which will affect the following crop.

He says farmers want low-end take-all build-up. This season Mr Metson is growing Zyatt, Crusoe and Bassett.

Soil and nutrition

While the right variety is a crucial, soil condition is the most important factor for a successful crop, he says.

Drilling later on better land with improved drainage, rather than drilling early on marginal land which is compacted and a bit wet, is the key to limiting take-all.

Therefore to improve soil condition he is applying organic matter in the form of paper waste.

Two types are being incorporated, one with a high carbon-to-nitrogen ratio, and the other with more phosphate, more nitrogen and less carbon.

The farm has also just started applying anaerobic digestate from food waste, which has the potential to halve nitrogen use.

Feeding the crop at the right time is also important, with 50kg/ha applied in the middle of February to stimulate rooting and offset the disease.

An early dose of nitrogen followed by a main application later in the season avoids leaching losses due to root inefficiency.

However, the wet and cold conditions this season meant crops received this early application two weeks late, but would have been unlikely to be able to use it effectively any earlier.

The mild autumn and wet conditions experienced this year mean lazy rooting could be a problem and could affect how nitrogen is taken up by crops.

In the past it was traditional to plough in front of a second wheat, but now Mr Metson tries not to plough as part of his efforts to control blackgrass by exhausting the seed in the top few inches of the soil.

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A Sumo Trio one-pass disc and press cultivator is instead used to achieve good consolidation around the roots to get the crop growing.

"The ground here isn't the kindest," his Agrii agronomist Neil Harper says. "We would like to be lower-disturbance if we could, but we need to incorporate organic matter as all the straw produced is baled and sold."

The move away from ploughing and rolling is achieving better seed beds with a lot less work and cost, as the take-all fungus is less able to move through the soil as easily as it does through ploughed land.

Seed treatment

Although the combination of the right variety on properly managed soils is keeping the lid on take-all, Mr Metson always uses seed dressing Latitude (silthiofam) to protect roots in the autumn during this important growth stage.

With the same fungicide programmes, this seed dressing insurance is the only additional input for second wheats on the farm.

"I treat all my second wheats with Latitude," he says. "It's a valuable insurance policy and has to be done. Take-all is always there ready to bite you."

David Leaper, seed technical manager at Agrii, says: "Every other year we see a high infection. Take-all is endemic and will always build-up, but Latitude has the potential to recover half of the lost yield whatever the variety."

This season the crop is looking much better than expected given the difficult weather. The benefits of using Latitude could be particularly evident this season as hot weather, such as that experienced recently, could see untreated crops burn out.

Although an additional cost, Latitude is helping Mr Menton aim for the top of the market by protecting the quality of his wheat and allowing him to take advantage of local outlets for milling wheats.

Around 75% of both his first and second wheats make milling wheat protein specification. "With Brexit we need to be growing crops with value and that we have a market for, and that's milling wheats," he says.

5 tips to keep on top of take-all

1. Improve soils

Move away from drilling early on marginal land. Instead ensure drainage is good and seedbeds are well consolidated after ploughing by rolling to enable roots to get a good start before the winter.

However, there is a difference between compaction and consolidation.

This season, heavy rain will have brought on compaction due to sitting water, so take the opportunity to map out those areas and improve them before next season.

2. Variety selection

Grow a variety which is proven as a second wheat, although data is somewhat limited.

Good second wheat varieties should be able to grow vigorously from an October drilling date to establish good root architecture which will cope in drier conditions later in the season.

Also look to grow a first wheat variety which can cope with take-all on its roots as this can help keep levels in the soil low.

3. Drill later

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Early sowings exacerbate the disease due to the warmer soils and present a longer potential period for infection, so delay until October.

While the take-all risk will be reduced, root structure also has the potential to be reduced. In a dry season poor roots will result in a yield penalty, but this can be negated using a seed dressing.

4. Manage other hosts

Short-term grass leys contain beneficial organisms which can protect a following second wheat, but take-all will increase drastically after a long-term grass ley.

Also be aware of including host species in cover crops, and the effect of grassweeds and cereal volunteers on maintaining the level of the fungus in the soil during the rotation.

5. Use a seed dressing

With take-all endemic in UK soils and very weather-dependent – favouring a dry autumn and winter, followed by a wet spring, growers should be prepared to invest properly in the crop to ensure good results.

It has the potential to recover up to half of the lost yield and will protect quality, allowing growers to target the milling premium.

JOURNAL : Farmers Weekly

Lamb prices are expected to stay high over the coming weeks, with export demand underpinning farmgate prices.

Prices remain well above historic normal levels, despite having fallen back from the highs of mid-April.

Clean sheep slaughterings in the UK are up on where they were a year ago, but export demand is good, imports from New Zealand have declined and tight supplies and good prices are characterising the global market.

See also: Why an EU trade deal could hurt beef after Brexit

As a result, the producers' share of the retail price of lamb has also shot up over the past three months, taking it to 67% – the highest for at least the past 10 years.

The Livestock Auctioneers Association (LAA) points out that the Muslim holy month of Ramadan began on 17 May, which has meant high demand for old-season lambs, cull ewes and spring lambs over the past couple of weeks.

Demand from the halal market is also expected to be strong at the end of Ramadan (14 June) when Eid al-Fitr celebrations take place.

This will be followed by Eid al-Adha celebrations on 21 August, which is expected to result in a particularly strong trade for ram lambs of six months or over.

Average prices

In the week ending 16 May, the average liveweight old-season lamb (OSL) SQQ price fell by 4.1p/kg to 237.03 p/kg, but this is 46.75p/kg higher than a year ago.

The new-season lamb (NSL) liveweight SQQ price was 303.96p/kg, which was steady on the previous week.

The LAA reports that after a tough start, because of the weather, the number of new-season lambs now coming into markets has started to increase.

But according to AHDB data, in the year to date, 13% fewer new-season lambs have come forward than at the same time last year.

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Deadweight prices for OSL in the week ending 12 May rose by 9p/kg to 578.5p/k, which is 165.6p/kg above where it was a year ago, but down on the record prices seen in April.

The deadweight NSL SQQ followed a similar trend (+9.6p), moving to 610.5p/kg.

Rebecca Osborne, AHDB analyst, said lamb prices here have the potential to continue to be well above historic normal levels over the next few months, as prices on the global market were still trending high.

"I wouldn't see them falling away drastically."

Market reports

Malton market in North Yorkshire said it sold 1,371 hogs at its Tuesday market (15 May), which topped out at £180 a head and averaged 261.47p/kg.

It also sold 184 spring lambs with a top price of £136 (324p/kg) being paid for a 42kg Texel-cross.

Bakewell Market's lunchtime sheep sale on Thursday (17 May) saw spring lambs reaching a high of £155 a head (346p/kg), with an overall average of £120 a head.

A "tail-end sample" of finished hogs averaged 198.89p/kg, with well-finished, heavier types making the best prices, topping out at 252p/kg and £134 a head.

Ashford Market's weekly report on its 15 May sale said demand for quality hoggets was still strong, with quality sheep making about £150 a head.

But its advice was to sell at these levels before the hogget trade inevitably slides as more new-season lamb comes on stream.

At Newark Market on Saturday (19 May), 627 spring lambs went under the hammer, making a SQQ average of 289.2p/kg, with OSL SQQ at 237.5p/kg.

Deadweight

Farmer marketing group Farm Stock Scotland said more spring lambs were urgently needed.

Over the past week they had been about 600-620p/kg, the highest ever start to a new trading year in living memory.

"We expect demand to remain very firm as abattoirs switch entirely from hoggets to new-season lamb in the next couple of weeks."

The group is advising anyone with hoggets to cash them in as soon as possible to avoid missing out.

JOURNAL : Farmers Weekly

Medium-term prime lamb forecasts remain buoyant despite trade tumbling during Ramadan (17 May to 16 June).

Marts are pointing to a combination of steadily increasing new season lamb (NSL) supplies and Islamic fasting to explain a 50-60p/kg drop in trade over the past two weeks.

Great British liveweight NSL prices fell more than 70p/kg between 14 May and 25 May, from more than £3/kg to 231.11p/kg.

However, Stuart Ashworth, director of economic services at Quality Meat Scotland, said prime sheepmeat prices may see support a week ahead of the Muslim festival's conclusion.

See also: Advice for finishing leftover prime lambs

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<https://infogram.com/spring-lamb-story-1h984wnoowzd4p3>

Ayr

Spring lambs are coming to market two weeks later than normal in Ayrshire, where auctioneer Drew Kennedy, Craig Wilson Ltd, says the bad spring has delayed production.

Ayr market is yet to see significant NSL numbers at its Monday sales. Numbers were back 30% this week (28 May) with 152 through the ring compared with 220 last year.

Very blocky texels topped the NSL trade at £134 and others hit 281p/kg, with the whole sale averaging 247p/kg, about 40p/kg back on two weeks ago.

"It has been hard to get the quality up here," Mr Kennedy told Farmers Weekly. "It has taken more effort this year to balance the supply of hogs and spring lambs and keep the supply of lambs up."

He predicted a shortfall in hill lambs coming to market as stores in the back end and as hogs in 2019 following a long winter and difficult spring.

"Hill farmers have had it worst," he added. "Some ewes were lean and abandoned lambs. Some hill farms are reporting between nine and 12 lambs per 20 ewes. You would expect 25 lambs in a typical year."

Looking ahead two to three weeks, he predicts hogs to be a better trade from 11 June as Ramadan comes to an end and NSL numbers to overtake hogg numbers at Ayr by mid-June.

Exeter

Quality is making good money at Exeter where heavier lambs (48-49kg) are in short supply, although hogg prices have dropped 50p/kg on a fortnight ago.

Monday's (28 May) sale saw heavy lambs making £137 and recorded a market average of 242p/kg, which was still 11p/kg up on the year, according to auctioneer Russell Steer of Kivells.

"Decent, in-spec lambs are in short supply now farms are into the tail-end of the hogs, which are showing the effects of a challenging winter," he told Farmers Weekly.

"We are perhaps seeing a little bit of resistance to some of the high prices. Good numbers of lambs are coming forward now and we are now in the middle of the Ramadan fasting period, which doesn't help."

Malton

Prime lamb prices have fallen to 250p/kg from highs of more than £3/kg before the bank holiday at Malton Livestock Auctioneers, North Yorkshire.

Auctioneer Keith Warters said better weather had helped finish spring lambs, which had increased numbers at a time of less demand.

He reported an SQQ of 234.3 for 366 NSLs on Tuesday (29 May), a 22% increase in volume on the week.

JOURNAL : Farmers Weekly

A landowner is facing a £10,000 clear-up bill after a group of travellers set up camp on a farmer's field in Surrey.

Seven caravans arrived at the site of the former Wisley Airfield on Sunday evening (13 May).

Farmer Colin Rayner, who rents the land, discovered the unauthorised encampment when he started work on Monday morning (14 May).

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See also: Dealing with travellers – staying safe and staying legal

“We arrived at the farm at 5am and found them sitting on the former runway,” Mr Rayner told Farmers Weekly.

“We found the locks on the gate had been cut off with portable angle grinders. Seven caravans were occupying an area of the site.

“We then called the landlord who got a bailiff to serve notice for them to leave by 8pm on Monday (15 May). I'm keeping well away from these people for the safety of my family and farm staff. Their reputation precedes them.”

The landowner, Wisley Property Investments (WPI), employed a security guard with a dog at the gate to prevent further caravans from entry.

However, under the Human Rights Act, the travellers must be allowed to come and go, especially if they need access to local hospitals and schools.

Large clean-up bill

The caravans eventually left the farm on Tuesday afternoon (15 May).

But WPI is facing a clean-up bill of about £10,000 to pay for the security and bailiffs, repair the gate and remove the fly-tipped waste.

“This is how travellers make their money. They go around housing estates, take a load of muck and then dump it on my land for nothing,” said Mr Rayner.

“The landowner or farmer is then left to pick up the bill. If you are required to take the waste to a landfill site, it can cost £100 per tonne. A lot of this stuff is contaminated with asbestos, so the cost goes up.”

A spokeswoman for Guildford Borough Council said there was no council involvement, as the incident happened on privately-owned land.

Surrey Police said they worked with the private landowner to provide advice and ensure a safe eviction.

Co-ordinated approach

Christopher Price, CLA director of policy and advice, said: “Travellers who occupy land illegally should not be given significant protections which prevent their lawful removal.

“Existing powers of enforcement could be used much more effectively on private land if the local authority, police and other relevant agencies had a more **co**-ordinated approach and used their joint resources at an earlier stage in the development of an illegal camp.

“To really tackle illegal sites, the government must ensure there is suitable provision of lawful camps to avoid the issues that arise from unauthorised encampments.”

Gypsy and traveller encampment on your land – options

Preventing unauthorised encampments

Ensure your gates are properly locked. You can also put concrete boulders in vulnerable entrances, reinforce gates, and flood access routes. However make sure that you do not obstruct a public right of way or a highway or erect anything likely to cause injury.

Have ready copies of title deeds or land registry documents, tenancy agreements and grazing agreements to help you quickly prove ownership of your land.

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Keep in touch with neighbours or local rural crime networks to stay informed about potential issues.

Ensure you have adequate insurance cover.

Advice and options for dealing with an unauthorised encampment

Calmly ask the trespassers to vacate immediately. You should be accompanied in case confirmation is needed that you asked the trespassers to leave. If your own or anybody else's safety is in doubt then you should leave immediately.

Avoid agreeing any occupation with travellers; inviting would-be trespassers onto your land; or supplying food, firewood or water – you may inadvertently give them rights.

Find out the details of the nearest authorised site or stopping place.

Keep a record of any damage done to your property.

Liaise with the police and local authority.

Find contact details for a firm of reliable, responsible bailiffs, who if necessary can be instructed to remove travellers by relying on the landowner's right to use reasonable force.

Source: CLA director of policy and advice Christopher Price

Government review to tackle illegal gypsy and travellers' sites

Last month, housing minister Dominic Raab announced a government review of the law and powers to deal with unauthorised caravan sites and developments.

The public consultation, which runs until 15 June, covers police and local authority powers, court processes, government guidance, the provision of legal sites, and the impact on settled and nomadic communities.

JOURNAL : Farmers Weekly

Less than a week remains for farmers to complete a major survey examining the effect of crime in the countryside.

The National Rural Crime Survey aims to measure the personal, social and economic cost of rural crime and antisocial behaviour across the country.

See also: Farm security advice to combat rural crime

The rural crime survey is available on the National Rural Crime Network (NRCN) website and is open for submissions until Sunday 10 June.

The last survey took place in 2015, when 13,000 people responded to give their impressions of crime and antisocial behaviour.

Significant costs

Results revealed that the financial cost of rural crime to the country was significant – totaling an estimated £800m/year.

The goal of the 2018 survey is to provide a clear picture of what has improved, what challenges remain and what more can be done to combat rural crime.

Questions in the survey cover a range of issues – including whether you report crimes and if you believe enough is done to catch offenders.

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Rural challenges

The NRCN brings together police and crime commissioners, police forces and organisations playing a key role in rural communities.

These organisations include the NFU, the Country Land and Business Association, Neighbourhood Watch, Crimestoppers, Historic England and the Countryside Alliance.

NRCN chairman Julia Mulligan said: "I hope everyone living or working in a rural community will spare a few minutes to complete our survey.

"It will provide a clear picture of what has improved, what challenges remain and what more government, police forces and other organisations can do."

JOURNAL : Farmers Weekly

Weed control is set to be a challenge for late-drilled beet crops, tackling stubborn weeds without hitting crops.

Many crops did not receive a post-emergence herbicide and broad-leaved weeds are becoming established.

"Weeds will have hardened up by now and will, therefore, be harder to hit," says independent sugar beet expert Mike May.

See also: What the 5 new sugar beet varieties offer

The delayed season means farmers are going later, applying herbicides at a time of higher temperatures and big temperature fluctuations. Therefore, crop safety will need be a key consideration.

"Weeds are waxing up and you will need to use products that cut through the wax to help control weeds."

But there is a danger of causing damage to the small beet plants with harsher tank mixes.

Bayer root crop campaign manager Edward Hagues advises care in what products to select, with the focus on formulations that are kinder on the crop.

Mr May says modern products tend to be safer and do not need an adjuvant which can cause problems, especially when temperatures are high. He points to Betanal MaxxPro (desmedipham + ethofumesate + lenacil + phenmedipham) as an example of a safer product to crops.

Another tip from Mr May is to consider splitting the application and going back in four to five days to help stop scorch.

Also avoid spraying in high intensity sunlight: early mornings or early evenings are best. "When temperatures get greater than 20-22C, then you need to worry."

JOURNAL : Farmers Weekly

Since the late 1980s Staffordshire farmer David Rushton has had a sideline buying, repairing, selling and exporting Laverda combines.

Having cut his teeth on early New Holland/Clayson 133s and 135s, his attentions turned the Italian brand during a chance opportunity.

"A local contractor ran a fleet of six 1970s Laverda M150s and when he packed up they were all entered into his dispersal sale," he says.

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"I didn't really go there to buy one, but they when they started knocking them down for about £500 apiece a friend and I ended up getting the whole lot."

With a yard then rammed with combines, Mr Rushton set about selling off the machines they didn't need.

To his surprise, one of the enquiries came from a chap based in Guyana, South America, who wanted a simple, tough machine that could cope with harvesting rice.

He did a deal, worked out how to export it and with the help of his wife Kathryn has been sending them over there ever since.

Sadly, Kathryn's health has deteriorated in the past few years, so family friend Debbie Langridge now helps with the day-to-day running of the operation.

Almost 30 years on, the demand in Guyana is still focused on older, simple four- and five straw-walker machines.

That includes 1970s models like the M150, its later replacement the M152 and the 3000-series machines built during the 1980s and early 1990s.

Buyers tend to favour models fitted with Fiat engines rather than Perkins, wobble box knife drives (instead of the old Pitman type that could shake the header to bits) and, crucially, minimal electronics.

That rules out the M182, which was well ahead of its time in 1981 as one of the first combines to offer full electronic controls.

The fact Laverda overengineered its combines and galvanised the tinwork means they stand the test of time better than most. Therefore, machines on up to 5,000 hours are still popular.

As a result of this interest, prices have climbed considerably since the lows of £500 to £1,000, with some tidy examples now worth more than £10,000.

See also: Video: It's coming; Massey Ferguson's huge 650hp Ideal combine

Shipping them abroad

To get the combines to South America as efficiently as possible, Mr Rushton came up with the idea of piggybacking them on an 18t flatbed lorry (also in high demand) and shipping the two as one unit.

To fit the machines neatly on the truck bed he removes the wheels, stacking them under the rear hood, and puts any spare parts in the grain tank.

Headers are shipped separately, with units up to 16ft being the most popular and 18ft generally the maximum.

The combine/lorry package is then hauled on a low loader to Ipswich dock before beginning its transatlantic journey on the top deck of the ship. When this makes its return journey it's largely packed with rice and timber.

Typically, the journey takes two weeks and includes various stop-offs in the Caribbean, such as Trinidad and Tobago.

Sometimes the combine and lorry combo has to be shifted around the boat, which is when damage can sometimes occur.

After their arrival in Georgetown, Guyana, the buyer treats the machines to full overhaul, including fresh paint if needed. They build and fit their own steel track units, too, which help them stay afloat in the paddy fields.

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Tooth peg drums are also installed instead of the standard rasp-bar units for more efficient threshing of the tough rice plants.

Asian market

Pakistan is another country Mr Rushton has been dealing with for the past 15 years or so.

This market has similar preferences to Guyana, but is willing to take a wider range of machines in more varying states of repair.

Rather than being shipped whole, these eastbound machines are disassembled and packed into shipping containers.

On average, three combines can be shoehorned into two containers. However, this often involves removing the wheels, grain tank, cab, engine and cutting off some sections of tinwork.

"With the big six-walker 3850s you have to do some serious work," says Mr Rushton.

"Getting an 11ft 6in combine through a 7ft 6in container opening takes a bit of doing."

Once they arrive in Pakistan the machines get completely rebuilt before heading out for cereal and rice harvesting duties.

New Holland 8070s are another particular favourite in this region and Mr Rushton has sent some of these over too.

UK machines

Almost all of the Laverda combines shipped abroad are sourced from within the UK, and due to the sheer number of machines sold in the 1970s and 80s there has been a fairly rich supply over the years.

However, due to exports, breaking and scrapping, Mr Rushton reckons there are now just 80 to 100 Laverda combines still running here.

These range from the 1960s-built M120s up to Laverda and McCormick-branded 2000 series. Many are located in the west of the country and the midlands, where the main Laverda dealer Burgess had it highest concentration of dealerships.

However, the last dealers to sell the combines in the UK were Yorkshire-based Wilfred Scruton and Mike Garwood in Hampshire, so those areas are where some of the latest models can be found.

Most popular model

One of the most desirable Laverda models is the 3790, which is what Mr Rushton uses to cut the 80ha of arable cropping on the 180ha family farm near, Uttoxeter, Staffordshire.

These combines were built between 1985 and 1992 and have five straw walkers, a 175hp Iveco/Fiat engine a hydrostatic transmission and a 16ft header. Tidy versions of these can still command high prices.

Spare parts

To keep the UK base of Laverda machines rolling, Mr Rushton also provides a comprehensive parts service.

These include genuine and non-genuine new spares as well as some second-hand items from machines he has broken.

Generally, Laverdas are pretty resilient, so the most common replacement parts are the usual consumables such as belts, bearings and knife sections.

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However, the 3600 and 3700 non-hydrostatic machines are notorious for clutch problems.

"To be honest, they're an embarrassment," says Mr Rushton.

As a result, he sells modified versions that correct most of the problems associated with the original item.

He also sends parts all over the world, including Poland, Finland, Australia and New Zealand.

Laverda in the UK

Laverda started building combines at its base in Breganze, Italy in the 1950s, but it wasn't until the late 1960s they started to make their way into the UK, though importer Bamford.

At that time Burgess was the main dealer and with more than 100 branches in the UK it quickly got a foothold on the smaller end of the market.

With plenty of keen deals on offer it managed to saturate many areas with Laverda combines.

Most of the UK machines were built during the 20-year period when Laverda was partnered with Fiat, which is why many sport Fiatagri decals.

However, things started to change when Fiat bought Ford New Holland in the mid 1990s and began selling many of its machines under the New Holland brand.

Laverda-badged combines were still being sold in the UK at this time, but some machines, such as the TL58i hillsider, appeared in New Holland livery.

When Fiat added Case-IH to its portfolio, the EU competition authorities insisted it sell off one of its combine businesses. As a result, Laverda moved to the Argo group in 2000 and for a time, some machines were sold as McCormicks.

Four years later Argo and Agco struck a deal whereby Laverda supplied combines to Agco to sell under its own brand colours. By 2007 that had developed into a 50/50 joint venture.

Agco closed its Dronningborg combine plant in mid-2010, transferring production to the Laverda factory in Italy, before buying the remaining 50% share from Argo in 2011.

The Breganze factory is now home to Agco's entire European combine operation from the Laverda-based straw-walker models sold in Massey Ferguson and Fendt colours, up to the new Ideal range of rotary machines.

JOURNAL : Farmers Weekly

"Fair" and "equal" are not necessarily the same thing when it comes to farming succession and passing on assets.

US attorney and adviser John Baker works for the Iowa State University Extension service, which runs a "beginning farmer centre" to help farming families with business planning and succession in particular.

His advice for successful succession planning includes seriously questioning the tendency for parents to want to treat their children equally. Equal is not the same as fair, he says, and splitting business assets can overburden those running the business.

See also: Farm succession advice

"Successors take over management, heirs take on ownership of assets," says Mr Baker. "However, every business and family will vary in size and complexity; successors and heirs can be the same people, but not necessarily.

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"In larger businesses, non-succeeding heirs could have shares in the business that can only be sold to other family shareholders. Such shares would have a capital value but needn't involve annual dividends."

Succession tips from John Baker

A 15 to 20-year succession plan, beginning when successors are aged 20 to 28 and seeing the retiring generation stepping down in its 60s.

The older generation should take the lead in initiating discussion and, while those discussions should be long-term, they should not be so protracted that no decision is ever reached.

Even where it is obvious who will succeed, that person's skills, education and knowledge must be assessed to identify any gaps, rather than relying on having grown up on the farm and in the business as succession qualifications.

Ian Naylor, a partner in Staffordshire law firm Bowcock & Pursaill, says there has to be an acceptance that the division of assets will not be equal and that in most cases the farm has to keep going.

Everyone should be aware of the plans so that there are no nasty shocks when a death happens, he advises.

The issues of fairness and equality in farming succession are ones that Mr Naylor encounters every week. "Most farming businesses can only support one successor," he says.

"The biggest hurdles are likely to be providing for the retiring generation and non-farming family members." Good pension planning can help with the former, he says, while there are several options to address the latter.

These include:

Leave the farm to the farming child or children, with the provision that they pay out certain sums to their siblings/other beneficiaries over a number of years – there's no arithmetical model for this, every situation is different, but it is important not to place too heavy a burden on the business.

If there is development potential on the land, provision could be made for siblings to be included in the division of any development sale proceeds.

Leave the farm to all siblings, with the farming child/children being given a long-term farm business tenancy so the remaining siblings receive the rent. However, this option comes with a warning that fragmented ownership can be complicated.

Make provision for some land to be sold on the death of the current owner to payout the non-farming siblings/family members. This is not an option in many cases as all land is usually needed for the farm business.

Residential barn conversions or other dwellings could be left to non-farming children.

Leave the farm to the farming child/children with the provision that if it or any substantial part of it is sold in future, the proceeds should be shared with their siblings.

Use life insurance to provide a lump sum on the death of a parent/current owner – this can be expensive.

Pensions and insurance

Insurance can be part of succession planning – whole of life cover or term cover can be useful for some families. It can provide a lump sum to pay non-farming children or other family members, to reduce debt, to pay tax or invest in the business.

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It is usually important that life cover is written in trust so that it remains outside the inheritance tax net, says Justin Bentley of Oxfordshire-based independent financial adviser Sandringham Financial Partners.

As well as providing for the retiring generation, any funds left in a pension pot on death can be left to non-farming children free of IHT, points out NFU Mutual.

JOURNAL : Farmers Weekly

Look beyond the glossy displays of the big manufacturers and there were plenty of innovations to catch the livestock farmer's eye at the 2018 Royal Highland Show.

Exhibitors included Ritchie with its high-tech cattle weighing station, an automated sheep crush that won the show's Innovation Award, new ATVs from Yamaha and Suzuki, and Landini's 7-series tractors.

See also: Sheep crushes go head-to-head in on-farm test

Ritchie Beef Monitor

Precision farming principles come to beef production with the automated recording of daily liveweight gain provided by Ritchie's high-tech drinking and weighing station.

The Beef Monitor has a false floor and weigh cells to record individual weights each time an animal drinks – maybe six to 12 times a day – and uploads the data to a server, where the information can be accessed and analysed online or via a smartphone.

The device uses an electronic ear tag reader to identify individuals and record their weight alongside the date and time; it also analyses an animal's earlier records to reject false readings.

In future, says Andrew Edwards of Ritchie, the labour-free weighing system could provide alerts if a significant change in weight gain or drinking frequency becomes apparent, and animals could be grouped according to weight gain performance and fed accordingly.

He adds that more accurate selection for slaughter should result from basing decisions on several stress-free weighings rather than a single snapshot weighing, with fewer individuals failing to meet the required specification.

The Ritchie Beef Monitor is priced at £4,200, with a subscription for data transfer and Cloud storage likely to be £15-£20/month when finalised.

James Leggat crush

James Leggat won a Royal Highland & Agricultural Society Innovation Award for his highly automated Scotssqueeze sheep-handling system.

A "magic eye" sensor closes the crush when it detects a sheep, adjusting automatically to the animal's size so that its head, feet and backside are easily accessible for treatment while barely bending over.

The crush is opened by a pedal or switch on the control panel. The drafting gates and the chassis incorporates hydraulics to remove the transport running gear and set the assembly level on uneven ground, too.

Scotssqueeze also demonstrated a weighing system with automatic powered entry, exit and drafting gates for better selection of sheep for slaughter.

Designed for a throughput of up to 600 fat lambs an hour, the system costs about £14,000 complete with electronic ear tag identification.

IAE water trough

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Redesigned water troughs for cubicle houses hold a bit less, but are simpler and easier to empty with a view to ensuring cattle always have a clean, fresh supply of drinking water, says IAE's Paul Scragg.

The tipping version has a simpler handle and unlatching mechanism to rotate it, while the rigid version comes with a slide valve at one end.

Both are available as free-standing or wall-mounted units in four lengths, with prices starting at £460 for the tipper or £380 for the valve version.

GlenFarrow boiler

Large boilers burning "clean" waste wood and straw in big bales to heat farmhouses, workshops and offices have been fundamental to the GlenFarrow business.

But a smaller model – resulting primarily from requests from Ireland for burning peat – is attracting interest as a log-burning boiler.

The GF90 incorporates a 1,200-litre water tank to provide a morning supply of hot water before the boiler is fired up for the day, during which its fuel supply needs replenishing two or three times, says Paul Kitchen of the Lincs-based firm.

The boiler needs single-phase 3amp electricity and mains water connections and costs about £8,000 plus installation versus £18,000 all-in for the next-biggest model.

Mr Kitchen says annual Renewable Heat Incentive payment receipts of £4,000-£5,000 are feasible.

Suzuki KingQuad 750

Suzuki unveiled a new KingQuad 750 ATV. It is an evolution of the current model, with the same power, but engine refinements generating more torque lower down.

This, together with a revamped frame and hitch and more effective engine braking and service brakes, has prompted a towing capacity increase from 450kg to 600kg.

National sales manager Harvey Day reckons the new styling give the quad more visual appeal, while installing a headlight on the handlebars improves visibility at night, especially through turns.

Raised handlebars aim to improve the riding position, while revamped suspension using upgraded pre-loaded shock absorbers are said to improve the rider's comfort.

The KingQuad 750 with power steering is priced at £8,849, while the similar 500 is £8,049 and £7,400 with and without steering assistance.

Yamaha Kodiak

Yamaha brought its latest Kodiak quads to the Highlands for a 2019 range preview.

The Kodiak 700 EPS SE is powered by a slightly smaller-volume (686cc) engine that has updated electronic fuel injection with a remapped control unit said to result in more torque, smoother response and improved fuel economy.

Towing capacity of 600kg makes this a practical machine for farmwork, reckons Yamaha, which will offer the new model in low gloss black or "Back-country Blue" paintwork, offset by a grey seat, front panel and load racks, plus satin black cast-aluminium wheels.

Prices will be revealed when the quad becomes available in September.

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Stewart single-axle tipper

We are used to seeing big-capacity high-spec trailers from Stewart Agricultural, but the small Edge trailers originally designed to fill containers carrying shipments to far-flung export markets such as Australia are now available here.

The Edge 4 runs on a single axle, has a built-in body prop as standard and its tailgate can hinge from top and bottom, and from one side, swinging right round to latch into place.

Hardox steel and twin-pack paint reflect the approach used for the bigger trailers, there are rope rails rather than hooks and a hose storage clip.

The Edge 4 is priced from £5,125 and there are tandem-axle Edge 8 and 12 models that come with LED lights as standard.

Stewart dump trailer

Stewart also presented a new dump trailer with a body built using Hardox steel and the same construction method as on the Pro-series grain and silage trailers.

That means there are no box section uprights (apart from one at the centre), nor any floor bearers as used on the GX-series trailers built from mild steel. The floor and sides are built using thinner but stronger and more resilient material.

These result in some weight saving and a "cleaner" design, says Stewart.

There are 15t and 20t versions; the Construction Pro CP20H on show is equipped with air suspension in place of leaf springs and runs on Nokian CT 560/60R22.5 tyres in tandem formation.

Nugent road trailers

A number of new and improved features aim to refine Nugent's range of road trailers, including retractable floor lashing points and mesh sides that are now hinged rather than rigid, with a tailgate section that can swing upwards when tipping.

Spring-loaded flip latches are said to hold the sides in place more firmly to minimise annoying rattles and squeaks, and LED lights, previously optional, are now standard.

The trailers retain Nugent's "Dual Drive" parabolic leaf suspension, which positions the **end** of the leaf between rubber balls and slipper plates for a more progressive and less "crashy" response to bumps and hollows.

This 10ft mesh-sided T3118H-MT is priced at £4,100.

Landini 7-series

The Royal Highland marked the launch of a new 7-series six-cylinder tractor line from Landini, featuring a 30x15-speed (or 54x27 with creep) transmission with six powershift steps – two up on the previous version and more ratios in total.

Intelligent shifting that adjusts to driver demands is claimed for the auto transmission control mode and the tractors can be brought to a halt and moved off again using only the brake pedals if required.

Dual Power boost for pto and transport work is on all models and, unusually, the top three have it for static as well as mobile pto applications.

The 7-160 shown in Active "mechanical" specification has 151hp for draft work and up to 165hp for pto/transport, while the new addition range-topping 7-230 Robo-Six has 205/225hp from its 6.7-litre FPTR engine.

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Dynamic spec brings electronic spools and other eControl features, plus the option of a data screen, Isobus implement control, guidance and so on.

Zetor Hortus

It says Zetor on the hood, but the Hortus 65 is actually a TYM in different colours.

A modern 2.9-litre Deutz engine developing 67hp is matched to a 24x24 speed transmission, with mechanical or powershuttle reverser.

A dual-element gear pump serves up oil at a rate of 39 litres/min for implement functions and the 1.93t capacity three-point linkage, and there is a separate steering pump.

Three-speed pto is also part of the package.

Target Set weeding machine

Fancy this job? Charlie Baker of potato fertiliser injector company Target Set gamely demonstrated the prone working position of this electrically driven self-propelled weeding machine, which deploys up to six prone hand-weeding workers, albeit with the benefit of cushions and head rests.

The device, built by Dutch manufacturer De Jongh, can be powered by a portable generator or batteries topped up with solar energy, and self-steers using a guide running along wheelings between beds of salad or vegetable crops.

Cross boom spreader

A boom spreader for herbicide granules from Cross Agricultural Engineering is intended for front linkage use while the tractor tows a set of rolls or a light cultivator.

The booms, which incorporate a slotted rail for easy positioning of the splash-plate spreading units, form storage stands when folded upright and a calibration tray is neatly stored in the frame.

It's priced at £1,500 before any Stocks air spreader is installed.

JOURNAL : Farmers Weekly

Security camera and sensor specialist Luda has developed a monitoring system that can alert farmers to an electric fence break.

The kit uses two clamps – one to the fence and a second to a ground pin – to monitor the circuit and sends notifications via an app if the voltage drops below a preset level.

It also displays a graph to indicate whether the voltage drop is due to livestock tampering with the fence, or if it's the result of shrubbery or rain.

The voltage level of the fence is sent through a built-in SIM card, so the fence status can be checked on any mobile phone without having to physically visit the field.

See also: How to put up an effective electric fence for livestock

It can be connected at any point in the existing fence and can be powered for two months with the rechargeable battery, or constantly supplied with 220V or 12V.

If the unit doesn't report for 48 hours, or if the battery levels drops too low, then it will automatically send the user a notification.

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The basic kit costs £175 and sends updates every 48 hours, while the £53/year upgrade checks the fence voltage every minute if it has a constant power supply, or every 10 minutes if it's running on battery power.

JOURNAL : Farmers Weekly

This spring's blizzards, sub-zero temperatures and flooding delayed sowing for a month and meant animals were kept under cover instead of grazing on the fields.

But as we moan about the inclement weather of 2018, spare a thought for the farmers of February and March 1947, who suffered the heaviest snowfalls and lowest temperatures ever recorded, followed by the worst floods in living memory.

Among them was farmer Maurice Wilks, who owned sprawling estates in Warwickshire and on Anglesey.

He borrowed a neighbour's ex-Second World War Jeep to get through the deep snowdrifts and clear fallen trees, while the rest of the country ground to a halt. He was suitably impressed.

Wilks was, in truth, a hobby farmer; in his day job he was engineering director of the Rover car company.

But his experience of the adversities faced by fellow farmers during the terrible winter of 1947 were to change the face of modern farming, because when he turned his brilliant engineering brain to the problem he came up with a solution that was eventually to become the Land Rover.

See also: A nostalgic drive in the retiring Land Rover Defender

Keeping it simple

Although impressed with the Jeep's simplicity and capability, Wilks was frustrated by the much-abused vehicle's tendency to break down – and the difficulty in obtaining spare parts when it did.

But his experiences with that battered old Jeep were enough to convince him that a go-anywhere versatile 4x4 was exactly what the nation's farmers needed.

Besides being the ideal farm runaround and towing vehicle, it could also be adapted for light ploughing, sowing, harvesting, baling and a host of other duties around the farm.

During the Easter weekend of early April 1947, Maurice shared his ideas with his brother, Spencer, who was Rover's managing director.

Spencer was eager to press ahead with his brother's plans, because he knew that Maurice's proposed Land Rover would also solve the company's problem with exports – or, rather, the lack of them.

In those austere post-war years, steel was strictly rationed and the lion's share went to manufacturers who exported most of their production to bring in much-needed foreign cash.

Unfortunately, there was little demand overseas for the outdated saloon cars that Rover was still building from pre-war designs and, as a result, the company was in dire straits.

But aluminium wasn't rationed so it was decided that the new Land Rover would be built with aluminium bodywork bolted on a ladder chassis made from welded offcuts of steel.

A 1.6-litre Rover petrol engine would supply the power. The Wilks brothers sold the idea to the Rover board by telling them that the new vehicle would be a useful stopgap until steel was no longer rationed and reasoned that it would achieve welcome export orders, too.

Production line

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Within weeks, Rover's engineers were building prototypes. The first one had its steering wheel in the middle, so that it could be built without expensive conversions to left-hand drive for export.

But the so-called Centre-Steer was abandoned when it was realised that nobody would be able to see the hand signals of a driver sitting in the middle of the vehicle.

But they soon got it right and the finished vehicle was on sale less than a year after its conception (a feat unlikely ever to be surpassed in the modern motor industry, where the development period of any new model is measured in years).

For maximum versatility for the farmer, the transfer box had three power take-off (PTO) points for auxiliary equipment, including a standard splined drive shaft to the rear to be connected to towed powered machinery such as mowers and binders, while an optional capstan winch could be mounted on the front.

The central PTO featured a pulley to drive vehicle-mounted welding equipment or a compressor to power a bench saw, for example.

Dutch launch

The new vehicle was launched on 30 April 1948 at that year's Amsterdam Motor Show. It was a low-profile affair with little fanfare, but the Land Rover was an instant success.

What had been intended by its parent company as a stopgap aluminium-bodied vehicle to beat post-war steel shortages soon became Rover's best-seller – and it did indeed achieve excellent overseas sales.

This was an era when the sun still didn't set on the British Empire and that versatile 4x4 was exactly what was needed out in the colonies.

Back in the 1950s, it was said that the first motor vehicle seen by three-quarters of the world's population was a Land Rover.

The Land Rover was a hit with Kenyan coffee growers and Ceylon tea plantation owners alike, but nowhere was it more popular than in the British countryside, among grateful farmers.

They didn't mind the fact that the seats were uncomfortable and that both heaters and door tops were optional extras. It was very comfortable compared with the tractors of its time.

More importantly, this was an era when the British Government had decreed that food production, and the acreage dedicated to it, had to be increased.

This was at a time when there was a severe labour shortage on the land, as a result of German and Italian PoWs being repatriated.

Mechanisation was essential and the Land Rover's sheer versatility was invaluable on the farm.

Design improvements

The original 80in wheelbase Series I was steadily improved over the next 10 years until its successor, the Series II, was launched in 1958.

That was followed by the Series III in 1973, which was replaced in the 1980s by the Stage One V8 (with a 3.5-litre petrol engine to address the lack of power in the standard 2.25-litre petrol and diesel engines) and the Ninety and One Ten coil-sprung models.

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Early in 1990, these utility vehicles were given the same 2.5-litre turbodiesel engine that was under the bonnet of the Discovery, launched the previous year, and the new model was badged Defender, so as not to cause confusion in the ever-growing Land Rover family.

During its lifetime, the fortunes of the utility Land Rover had changed. In its early years, there was nothing to rival its all-round ability.

If you lived and worked in the countryside, a go-anywhere Land Rover was essential. But from the late 1960s, rival 4x4s from other manufacturers ended Land Rover's monopoly.

Few enjoyed the same off-road capability or the longevity of the aluminium-bodied Land Rover, but nearly all were cheaper.

Of course, Land Rover launched a few new models of its own to rival those new competitors. The first, in 1970, was the Range Rover.

Today it is seen as a rich man's luxury 4x4, and priced accordingly, but nearly half a century ago the original two-door model was aimed at the farmer and was seen as a dual-purpose working vehicle that was equally at home in the fields during the day or going out to dinner on a Saturday night.

It was very basic, with footwells designed to be hosed down after a hard day out in the mud.

As the Range Rover headed steadily upmarket, it was joined in 1989 by a new model, the Discovery, which was priced to take the fight to Land Rover's Japanese rivals.

It succeeded and became Europe's best-selling 4x4 until it was ousted by its own sibling, the Freelander, in 1998.

Aware that farmers would appreciate more workmanlike versions of these new vehicles, the company produced van-style models badged "Commercial" that offered comfort, carrying capacity and excellent towing capability as well as excellent off-road ability.

Growing family

These days, a bewildering choice of models bearing the green oval badge is available, including the Range Rover Sport, Range Rover Evoque, Range Rover Velar and Discovery Sport.

What they all have in common is class-leading off-road ability – it's part of Land Rover's heritage and something the company insists upon before any new model is launched – but they all have a bit too much carpet and bling for the tastes of many who work in the countryside.

Meanwhile, throughout all these changes, the original Land Rover lived on under the Defender badge.

It still comprised an aluminium body on a steel ladder chassis and was essentially hand-built, although the vehicle had evolved greatly since 1947, with creature comforts such as power steering, comfortable seats and decent heating added over the years.

Sadly, the Defender was discontinued in 2016. After decades of upgrades to keep it within safety and EU emissions rules, the company finally decided that it was time to tear up the 68-year-old design and start again.

But as the last models rolled off the Solihull production line in January 2016, the family resemblance with the 1948 original was striking. Stand them alongside each other and you wouldn't need to take DNA samples to confirm the parentage.

As it celebrates its 70th birthday in 2018, it is only fitting that a long-awaited new Defender is expected to join the line-up later this year – but whether a new generation of green Land Rovers will conquer the countryside as comprehensively as that 1948 original remains to be seen.

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Land Rover landmarks

- 1948 Original Land Rover makes its debut
- 1953 Long wheelbase version introduced
- 1958 Series II unveiled
- 1966 500,000th Land Rover produced
- 1967 Rover nationalised and becomes part of British Leyland (BL)
- 1970 Range Rover launched
- 1971 Series III
- 1976 Millionth Land Rover built
- 1982 Four-door Range Rover released
- 1986 BL renamed Rover Group
- 1988 Rover Group is privatised and becomes part of British Aerospace
- 1989 Discovery becomes third Land Rover
- 1990 Original Land Rover renamed Defender to avoid confusion
- 1992 Second-generation Range Rover
- 1994 BMW buys Rover Group (includes Land Rover)
- 1995 Annual production at Solihull factory tops 100,000
- 1997 Freelander is Land Rover's fourth model
- 2000 BMW sells Land Rover to Ford
- 2002 Third-generation Range Rover
- 2004 Discovery 3
- 2005 Range Rover Sport is fifth model
- 2006 Freelander 2 built at Halewood on Merseyside
- 2007 Record sales of 226,000 vehicles
- 2008 Ford sells Land Rover to Tata Motors
- 2011 Range Rover Evoque is sixth model
- 2015 Discovery Sport replaces Freelander
- 2016 Defender production **ends**
- 2017 Range Rover Velar becomes seventh Land Rover
- 2018 New Defender expected this autumn

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JOURNAL : Farmers Weekly

When tractors first arrived in the early 1890s they were used mainly for stationary work, with a belt drive powering equipment such as threshing machines, and the next step was using the drawbar to pull ploughs and other machinery.

Load-carrying tractors followed in the early 1900s, with much of the development work coming from British manufacturers.

Pioneers included the Bedfordshire-based Saunderson company with a farm transport vehicle announced in 1898.

An improved version followed in 1906, designed with the driver at the front, a mid-mounted 30hp air-cooled engine and a manually tipped detachable load platform at the rear.

The versatility of the new Saunderson featured in a demonstration organised in a wheat field in 1906, starting with the tractor harvesting some of the crop with a binder.

When the binder was unhitched the tractor's load platform was attached and used to carry sheaves to a threshing machine.

The sheaves were threshed using the tractor's belt pulley to power the thresher, and the belt then operated a grinder turning the grain into flour.

While bread was being baked from the newly harvested wheat, the Universal ploughed part of the field, prepared a seedbed and sowed next year's wheat crop.

The programme ended with a picnic tea using freshly baked bread from the newly harvested crop. The Saunderson won a Royal Show Silver Medal in 1906, but it attracted few customers.

See also: Machinery Milestones: Four-wheel drive tractors

Removable platforms

The idea of a removable load platform had already appeared in 1900 on Scotland's first production tractor.

Designed by Professor John Scott, it was powered by a 20hp engine and the load capacity was said to be three tons. The Scott tractor achieved few UK sales, but a small number were exported.

Another competitor in the load carrier market was the Intrepid tractor built in Somerset by Petter.

Announced in 1903, it featured a single-cylinder horizontal engine producing 12hp, and the two-speed gearbox provided 2.5mph for field work and up to 5mph in the transport gear. It was not a sales success.

The best known of the UK load-carrying tractor pioneers was the Coventry based Daimler company, a leading manufacturer of luxury cars which later became the royal family's preferred motoring choice.

Farm tractors arrived in the prestigious product range in 1911, powered by a 30hp engine developed for the company's cars and featuring the patented sleeve valve design that provided the smooth, quiet performance Daimler customers expected.

The specification also included a belt pulley plus a load container at the rear, but there were few customers.

The only major American company with an interest in the load-carrying tractor idea was Avery, a leading manufacturer of steam traction engines.

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With tractors providing increased competition for steam power, Avery announced its new Tractor Truck in 1909 with two front seats and a rear load container with 3 tons capacity.

A 36hp four-cylinder engine provided the power to plough with three 14-inch furrows, and a front-mounted belt pulley operated stationary equipment. Production ended in 1914.

Unimog launch

Interest in load carrying tractors waned during the 1920s and 1930s, and the revival in the late 1940s started in Germany with the Mercedes-Benz Unimog.

When the Second World War ended Germany's aircraft industry had ceased to exist and a senior aircraft design engineer who had lost his job decided to design a farm tractor instead, and the result, in 1947, was a prototype version of the Unimog.

The production model available from 1948 used a 25hp Mercedes engine, four-wheel drive, suspension front and rear, pto drives front and rear, two seats at the front and a one-tonne capacity load container at the rear.

The Unimog attracted enormous interest when it was launched at the 1948 DLG show, and orders flooded in as Europe's farmers re-equipped after the war.

Now, 80 years later and with numerous design updates, the Unimog is a continuing success story with the production total recently passing 350,000, although most of the demand now is for construction work and military use.

The next German load carrying tractor success arrived in 1951 when Lanz announced their Alldog model based on a rectangular frame with the driver and engine side-by-side at the rear.

This left space for front, mid and rear-mounted equipment, providing the versatility to operate more than 50 officially approved attachments.

Many of them were specially designed for the Alldog including a range of haymaking machines, a single-row sugar beet harvester, a mid-mounted plough, implements for rowcrops, and even a portable milking machine for small dairy herds.

A tipping load-carrying container was probably the most popular attachment.

The Alldog was a big success on the continent, and some were imported into the UK.

Production started with a 12hp petrol/paraffin power unit and the final version, with an 18hp diesel engine, arrived in 1956 when the Lanz factory was sold to provide John Deere's European production base, which is why the last few Alldogs were finished in John Deere colours.

British makers

Britain's load-carrier success of the 1940s was the Opperman Motocart introduced in 1946 to replace the horse and cart, which was still doing much of the transport work on UK farms.

The Opperman family farmed and ran an engineering business in Hertfordshire, and their first Motocart was built for their own farm where it was so successful that they began commercial production.

The design was simple, with a tricycle layout and an 8hp air-cooled engine attached to the powered front wheel.

With 1.5 tons load capacity and an 11.2mph top speed, the Motocart easily outperformed a horse-drawn cart, and the sales total reached more than 10,000 when production ended in 1955.

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Since then there has been little interest in load-carrying tractors. Alternatives for moving small loads have arrived, including link box attachments for mounting on the back of the tractor.

Lightweight all-terrain utility vehicles are also a popular choice, and we have adopted America's enthusiasm for pick-up trucks.

There is also a demand for tractors with a load space for equipment such as demountable sprayers or spreaders, but these are not designed as transport tractors for general load carrying.

Experimental tractors

A major setback for agricultural load-carrier enthusiasts came in the 1980s after the Silsoe Research Institute (SRI) decided to organise a major transport tractor investigation.

This involved building a special 120hp tractor for carrying demountable load units.

For research purposes the tractor was fitted with both a 10-speed mechanical gearbox and a hydrostatic drive providing a 65kph maximum speed.

Rear wheel and pivot steering were both fitted as well as front and rear brakes and suspension.

Special load units carried behind the front cab were mounted or removed using a hydraulically operated hook lift, and they included a container for grain or root crop *harvesting*, a rear delivery manure spreader body and, for silage making, a rear-mounted load container for grass from a front-mounted forage harvester.

The experimental tractor was used in an extensive field test programme during the early 1980s, and the verdict was a thumbs down for the load carrier.

A standard 126hp tractor working with ordinary trailed equipment would have a much lower capital cost than the special transport tractor and its demount units, the official report said, and work rates with the standard tractor would be much higher because it pulled bigger loads than the transport tractor could carry.

JOURNAL : Farmers Weekly

A 22-year-old man has died following an accident involving a tractor in Denbighshire.

Emergency services were called to Prion, near Denbigh, at 2.31pm on Saturday (2 June).

The victim has not been named and police have asked for privacy for his family.

See also: Tributes to woman, 49, killed in farm accident

In a statement, Inspector Alun Davies, of North Wales Police, said: "We can confirm that on Saturday afternoon [2 June], North Wales Police, along with North Wales Fire and Rescue Service and Wales Ambulance Service, attended an incident at Prion near Denbigh, where sadly a 22-year-old young man was killed in an incident involving a tractor.

"The North East Wales and Central coroner John Gittins and the Health and Safety Executive have been informed of the incident.

"A thorough investigation is taking place into the circumstances. At this time, North Wales Police have no more comment to make but ask for the family's privacy to be respected."

JOURNAL : Farmers Weekly

A man in his 40s has died after becoming trapped by farm machinery in Northern Ireland.

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Emergency services were called to Moughley Road, in Lisnaskea, just after 12pm on Monday 11 June.

But the man, named locally as Gerry Collins, could not be saved and was pronounced dead at the scene.

See also: Machinery still the biggest cause of deaths on farms

In a statement, the Northern Ireland Ambulance Service (NIAS) said: "We received a 999 call at 12:02pm on Monday afternoon, following reports of a farm incident in Lisnaskea.

"NIAS dispatched two rapid response vehicle paramedics to the incident. No one was taken from the scene."

According to local reports, the fatal incident involved a slurry mixer. The NI Health and Safety Executive is investigating.

'Horrific and tragic'

Arlene Foster, Democratic Unionist Party leader and Fermanagh and South Tyrone representative, expressed her condolence's to Mr Collins' family.

She said: "This a horrific and very tragic accident and I wish to extend my sympathies to the family of the man killed as a result.

"Sadly another farming family has been plunged into grief and they are very much in our thoughts at this devastating time. The man was well-known within the farming community and his character will be greatly missed by all who knew him.

"This is a very busy period for our farmers. However, one death on a farm is one too many and this incident has brought into focus the grim dangers that can exist while working with farm machinery."

Scots digger fatality

Meanwhile, health and safety chiefs are investigating the death of a man following an accident with a digger on a farm in Aberdeenshire.

The 68-year-old man suffered crush injuries and died following the incident at South Waulkmill Farm, in Newmachar, on Thursday (7 June).

JOURNAL : Farmers Weekly

A Cambridgeshire man who was killed in a crash while fixing a tractor at the roadside has been named by police.

Alvis Smith, 48, of Tower Road, Wisbech, died at the scene following the collision in Main Drove, near Little Downham, Ely, at about 2.15pm on Tuesday (19 June).

Mr Smith and a second man, also in his 40s, were repairing a tractor at the side of the road when the collision involving an Iveco Ford HGV happened.

See also: Certification and staff training – all you need to know

The other man suffered serious but not life-threatening injuries and he was taken to hospital for treatment. The driver of the lorry, a man aged in his 50s, was unhurt.

Officers from Cambridgeshire Constabulary have launched an investigation and they are trying to establish what happened in the lead-up to the collision.

A force spokesman said: "Officers are investigating the circumstances of the collision. No arrests have been made."

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Anyone with any information is urged to contact Cambridgeshire police on 101.

JOURNAL : Farmers Weekly

Turn the key and – all being well – it fires up ready for another day's work on the farm. But who makes the engines used in agricultural vehicles, and where are they built?

There was a time when Cummins, Deutz and Perkins dominated the production of diesel engines for tractors, loaders, sprayers and self-propelled harvesters. But times change: technical challenges, company strategies and production economics have brought more engine makers into the field.

Below we chart the source of power for agricultural machines used in the UK.

See also: Buying a tractor? How to make sense of engine statistics

Agco Power

When Agco bought the Valmet (now Valtra) tractor business in 2004, Sisu (now Agco Power) engines came as part of the package.

Investment in engineering and assembly at the Linnavuori plant in Finland – to increase capacity to 50,000 units a year – led to the engines being progressively introduced into the entire Massey Ferguson tractor and combine ranges, with four-, six-, seven- and 12-cylinder designs.

The 3.3-litre and 4.4-litre diesels have more recently been introduced to the Fendt 200 Vario and 300 Vario tractors, the 9.8-litre and 16.8-litre designs replaced Cat units in the Challenger (now Fendt in Europe) tracked tractors, and the principal OEM customer in agriculture is JCB for its Fastrac tractors.

Agco Power also makes engines in Argentina (3,000 units capacity) and Brazil (30,000 units), and also in China (30,000 units) for the Global Series tractors built there.

Caterpillar

Cat's influence has diminished in the agricultural market for large US-built six-cylinder engines but it retains a presence through the Perkins-branded Cat engines used by Claas in the Averro and Lexion 760 combines.

Cat's own telehandlers are powered by engines built in the Perkins plant in Peterborough.

Cummins

At its Darlington plant on Teesside, Cummins makes QSB diesels, which JCB installs in wheeled loaders and Bargam uses in its Italian-built sprayers, with Agrifac switching from Volvo to 9.6-litre Cummins power with up to 420hp for the next-generation Condor Endurance sprayer.

Canada's Versatile is the main tractor customer. Its range is powered entirely by Cummins, while John Deere uses the 15-litre QSX15 in the two most powerful models in its 9R/RT/RX line-up.

The 4.5-litre and 6.7-litre engines are ultimately derived from the European Engine Alliance joint venture with New Holland and Iveco Trucks, which was dissolved in 2008 when Fiat Group's FPT Industrial assumed full ownership of the Turin factory built to produce the new power units.

Cummins likewise gained full control of the Rocky Mount Plant in North Carolina, originally set up with Case Corporation as Consolidated Diesel Corporation (CDC).

Daedong

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The South Korean manufacturer makes most of the engines installed in its Kioti tractors but it recently signed a multi-year deal with Doosan.

Deutz

This is the independent engine brand found most commonly powering farm tractors and equipment. In 2017 the German manufacturer supplied 21,660 diesels to agricultural vehicle manufacturers (up 26% on the year before) out of a total of 161,646 units.

Apart from fulfilling the bulk of SDF Group's engine needs for Deutz-Fahr and Same tractors, the Cologne-built diesels are used in Fendt Vario tractors from 130hp to 396hp.

Argo Tractors is a more recent customer, switching to new compact Deutz engines for its 70-136hp Landini and McCormick models, and Zetor also now uses the engines for the small Hortus and Major and the six-cylinder Crystal models.

Deutz powers the Chafer Interceptor, Hardi Alpha and all Sands sprayers with TCD6.1 engines, and a raft of telescopic handlers from Claas, Faresin, Kramer, Manitou and Merlo as well as wheeled loaders from Schaffer, Tobroco and Weidemann rely on Deutz power.

Engine manufacture for local markets is undertaken in Argentina in co-operation with Agco, and at a joint venture in China.

Doosan

This South Korean construction machinery giant, which counts Bobcat among its divisions, is no stranger to building large diesels for marine and other applications but it is a relative newcomer at the smaller end of the scale, with ambitions to produce 100,000 units a year at a new plant opened in 2012.

Bobcat skid-steer loaders and telehandlers (including Massey Ferguson branded telescopics) use the new 3.4-litre four-pot, and farm and construction equipment heavyweight Lovol Industries is entering a joint venture to produce and use the engines in China.

FPT Industrial

The heavy diesel engines unit of CNH Industrial – manufacturer of Case IH and New Holland farm tractors, telehandlers and harvesters – is winning increased OEM sales on top of its in-house customers.

Almost half of the 606,700 units produced in 2017 were taken by CNH units, with agricultural equipment accounting for 17% (47,400 units).

The other 54% went to customers such as Argo Tractors with 110-310hp engines for Landini and McCormick models, and Claas with 75-445hp engines for the Elios 200 and Axion 800 and 900 tractor ranges, plus Dieci and Merlo, and Agrifac for its Condor sprayer.

The current business was formed from the diesel engine operations of Iveco Trucks plus other elements of Fiat Group powertrain operations, brought together under the CNH Industrial umbrella.

The company makes 3.4-litre to 6.7-litre engines in Italy and the large-capacity Cursor and new V20 engines in France. FPT also makes engines in Argentina, Brazil and China.

JCB Power Systems

With 350,000 mainly four-cylinder DieselMax and EcoMax units under its belt in the 10 years to 2015, the JCB Power Systems operation at Foston, near Derby, now powers most of the group's light construction and farm handlers with 4.4-litre and 4.8-litre engines up to 173hp.

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Among OEMs, Briggs Irrigation uses JCB power for pump sets. Italian firm Mazzotti does likewise for smaller versions of its own sprayers and the Vicon iXdrive.

JCB does make a six-pot engine – but only for lower-emissions regulated markets; and engines are built at its Indian construction machinery plant for the local market.

John Deere Power Systems

Diesel engine manufacturing is a major enterprise for John Deere, given that almost its entire range is powered in-house.

There are plants in Saran near Orleans, France, and at Waterloo, USA, feeding tractor, combine and forage harvester production, and also winning some OEM business.

Claas retains Deere engines for the Arion 500 and 600 tractors built in France; Bateman Engineering and Multidrive are customers for their UK-built self-propelled sprayers; and Kuhn is among feed-mixer manufacturers using Deere power.

A new 13.6-litre engine with up to 684hp could power some of Deere's most powerful machines from 2020.

Kohler

Still best known for small-capacity petrol engines, the US manufacturer moved into diesels with the 2007 acquisition of Italian engine maker Lombardini and subsequently introduced its first heavy-duty diesel.

Among the first customers for the 3.4-litre KDI was JCB for small wheel loaders and telehandlers. The first tractor application is the new Arbos 5000 Series being built by China's Lovol Group subsidiary in Italy.

Kubota

Small engines are big business for Japan's leading farm and light construction equipment manufacturer. It claims to be the global market leader for sub-100hp diesels but it also builds larger units – a new four-cylinder series delivering up to 210hp is on its way.

Apart from powering the 95-175hp Kubota tractors sold in the UK, it also counts Avant, Dieci, Manitou, Merlo, Schaffer and Tobroco among its materials handling customers with mainly 50-75hp engines.

Kubota also makes engines in China, Indonesia and Thailand for local consumption.

Liebherr Machines Bulle

Liebherr 15-litre D9508 V8 powers Krone's Big X 680 forage harvester with up to 662hp – other versions go to 860hp

The heavy diesels division of the construction equipment giant has its foot in the door at Krone, supplying 687-898hp V8 engines for the BiG X 680 to 880 forage harvesters.

A marketing agreement with Deutz should help push more units into the agricultural sector.

MAN Engines

German truck and bus maker MAN has just set up its engines operation as a separate business unit thanks to growing OEM sales, including new business in agriculture.

It has returned to the Fendt range after a long absence with a 12.4-litre unit for the 380-500hp 1000 Vario series. Agco uses the same engine, along with a 15.3-litre unit generating 647hp, for the new Ideal combine.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Claas and Krone use MAN for their most powerful forage harvesters, peaking at 1,078hp.

MTU

This division of Rolls-Royce Power Systems, based in Germany, adapts Daimler OM series truck and bus engines for off-highway applications and stamps them with the Mercedes-Benz brand name.

Claas is a big customer, buying 4,000 to 5,000 units a year for most of its Jaguar forage harvesters and Lexion combines, and all Tucano combines and Xerion tractors. MTU engines up to 230hp are slotted into the Spirit, Merlin and new Predator sprayers from Househam.

Krone's smallest forage harvesters have 490-626hp MTU engines, Grimme uses them exclusively for beet and potato harvesters, and Agrifac's Holmer unit employs the 15.6-litre at 626hp for the HexxTraxx.

Perkins

The UK manufacturer may no longer list any big-name tractor marques among its customers but Perkins Engines Co does supply a number of smaller makers, including Armatrac and Lindner.

The Peterborough factory has capacity for up to 500,000 engines a year, building the small 400 Series and compact 850 Series (which is derived from an FPT base engine), and the 4/6-cylinder 1100 and 1200 Series engines.

The new-generation Syncro range of 1.7- to 3.6-litre engines is waiting in the wings for compact machinery and potentially a tractor power revival with outputs up to 134hp.

Knight Farm Machinery uses a six-cylinder, 7.1-litre 1206F engine for the Vista 1800 and 2000 series sprayers – as does Mazzotti, the Italian manufacturer behind the Vicon iXdrive, for its three biggest models.

Several Kramer and Weidemann telehandlers and small loaders get Perkins power and the Cat-branded engines in Caterpillar telehandlers are built at the Peterborough facility.

Perkins remains a big engine maker worldwide, with factories in the USA, Brazil and China.

Scania

Pea pickers built by PMC Harvesters in Fakenham, Norfolk, use a 12.7-litre Scania DC13 with 438hp, while the new three-wheel spreading "floater" from parent company Ploeger has the 9.3-litre DC09 with 400hp.

The bigger Scania motor also gets an outing in 500hp form in the DeWulf Kwatro four-row potato harvester.

SDF

The maker of Same, Deutz-Fahr and Lamborghini tractors returned to latest-emissions engine manufacture with the 2.9-litre and 3.9-litre FARMotion design built at its Indian plant.

This is installed in Deutz-Fahr 4E, 5D and 5G tractors, and equivalent Same models, and in the Claas Atos 200 and 300 supplied by SDF.

Sonalika

The Indian manufacturer of tractors up to 90hp carrying the Solis brand in Europe are powered by in-house engines assembled at the tractor plant.

TMTL Engines

This is the engines manufacturing unit of Tractors and Farm Equipment, maker of TAFE tractors in India, including the 36-60hp models sold in the UK.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Volvo Penta

Mastenbroek drainage trenchers and tracked backfilling vehicles are among the machines powered by Volvo Penta 5-litre, 8-litre and 13-litre diesels with outputs up to 400hp from the Swedish truck, bus and construction machinery maker's engines unit.

A 13-litre unit developing 469hp also nestles under the hood of the AVR Puma 3 potato harvester; the same unit is used by Agrifac in its Holmer Exxact sugar beet harvesters with outputs of 469hp and 612hp.

Four-cylinder Volvo Penta engines power the Kverneland Siloking feed mixers.

Yanmar

The company's Biwa plant in Japan specialises in compact three- and four-cylinder diesels up to 100hp. In 2015 it reached the five million units milestone, 20 years after opening.

Applications for the TNV Series include one or two small telehandlers in the Dieci, Faresin, Kramer and Wiedemann ranges, all bar one of the Italian MultiOne loaders and telescopes, and Landini and McCormick compact tractors, as well as Yanmar's own.

Zetor

Despite low production volumes of about 3,200 tractors a year, Zetor continues to make its own 4.15-litre, four-cylinder engines for the 78-147hp Proxima and Forterra models, and for some OEM sales.

JOURNAL : Farmers Weekly

UK dairy processor, Meadow Foods has introduced a two-year fixed price milk contract element for its 650 dairy farmer suppliers.

The contract will pay 28p/litre for a 24-month period stretching between 1 July 2018 and 30 June 2020.

See also: Ditch dairy voluntary code and reform contracts, says NFU

Every Meadow producer will automatically be given 3% of their annual volume as forward fixed price litres, with the onus on farmers to opt out if they do not want to take up the offer.

Despite the modest initial figure, the milk buyer says it intends to increase the amount over time in order to provide producers with increased security and is in talks with other customers interested in forward fixed pricing.

The move follows the likes of Muller, Lactalis and Paynes Dairies who all have fixed milk price options.

<https://infogram.com/meadow-fixed-1hmr6gyp083z6n/>

"We're pleased to be able to introduce this new pricing option as a direct result of feedback from our producers. We're committed to offering our producers a simple, secure and straight milk price," said Meadow Foods chief executive, Mark Chantler.

We're committed to offering our producers a simple, secure and straight milk price Mark Chantler, Meadow Foods chief executive

"Although we feel milk prices are likely to rise over the summer, it's harder to forecast what the milk price will be for the 24-month period.

Mr Chantler added: "Having a 28p/litre fixed price for the full 24 months will give some producers the security they desire for a part of their allocated volume."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Meadow Foods announced earlier in the month that it was looking to recruit new producers to match ever increasing customer demand.

JOURNAL : Farmers Weekly

UK dairy processor, Meadow Foods has increased its A litre milk price by 1p/litre from the start of next month.

The move means the 650 Meadow producers will receive 28p/litre for litres with a constituent content of 4% butterfat 3.3% protein.

See also: Dairy markets rise despite peak production month

Meadow cited a strengthening of dairy markets behind the rise with protein and skim milk powder (SMP) performing particularly well.

SMP was resurgent in May, shooting up 14% on the month to an average of £1,320/t, but still remained 15% down on its level in May 2017.

Recent volatility in the butterfat and cream markets had stabilised in recent weeks according to the processor, with average UK wholesale prices for May finishing 13% up at £2,350/t and 11% up at £5,180/t respectively.

<https://infogram.com/meadow-foods-june-price-1h7v4pj79j084k0>

"We are pleased the market conditions continue to improve and to be able to pass on the improvements to our farmers," said Meadow Foods chief executive, Mark Chantler.

He added: "Our decision to invest in customer innovation and new product development is also starting to bear fruit as we extend our range and reach into new markets, creating an even greater demand for our products."

July will also see the introduction of the Meadow Foods fixed price contract.

Producers who take up the scheme will lock in 2.6% of their total annual volume recorded between April 2017 and May 2018 for two years at a fixed price of 28p/litre.

Other July milk price moves

Liquid litres (4% butterfat, 3.3% protein)

Yew Tree Dairy 1.5p to 28p/litre

Sainsbury's Dairy Development Group 0.36p to 28.48p/litre

Pensworth 1.2p to 27.2p/litre

Muller 1.25p to 28p/litre

Manufacturing litres (4.2% butterfat, 3.4% protein)

Belton Farm 1p to 28.25p/litre

Dairy Crest 0.65p to 28.65p/litre

Glanbia 1.5p to 28p/litre

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

UK dairy processor, Meadow Foods has unveiled its Young Farmers Initiative to provide the next generation with key business skills and dairy industry knowledge.

The program, scheduled to begin in October 2018, will recruit 20 candidates between the ages of 20 and 35 – although the milk buyer added there is no formal upper age limit.

See also: Young farmers grant scheme opens in Wales

All applicants must already be Meadow Foods suppliers.

Successful applicants will receive six **hands** on training days across the two-year program, covering subjects such as sustainability, accounting, milk-price forecasting, cost management and purchasing.

The courses will be taught by industry experts and Meadow Foods management staff and all travel training, travel and accommodation costs will be covered as part of the scheme.

Course sponsorship

Beyond the two-year program, applicants will also be sponsored by the processor to undertake an on-the-job agricultural or business course of their choosing.

“Supporting young farmers is critically important to maintain the future of the industry, said Mark Chantler, chief executive at Meadow Foods.

“By establishing this exciting new programme we aim to support the next generation of farmers and provide them with the **hands**-on training and funding needed to gain a wider understanding of the industry and further their careers in farming.”

Interested applicants should contact the Meadow Foods liaison team on 01244 680 071 or visit Meadow Foods' website for an application form.

The deadline for applications is 31 July 2018.

JOURNAL : Farmers Weekly

UK dairy processor Meadow Foods has increased its A litre milk price by 1p from 1 June, while also announcing it would recruit more producers.

The move means the milk buyer's 650 producers will receive 27p/litre for milk with 4% butterfat and 3.3% protein.

See also: Dairy farmers capitalise on higher milk prices

For ease of comparison, the manufacturing litre of 4.2% butterfat and 3.4% protein will pay 27.38p/litre for Chester and 27.25p/litre for Cumbria.

Meadow Foods cited improved cream prices and reduced milk production in Europe due to recent bad weather as reasons behind the change.

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E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The rise follows a price hold in May, which was preceded by 5p worth of cuts in 2018 alone.

"We are pleased to pass on the improvements in the market to our farmers just as soon as we can," said Meadow Foods CEO Mark Chantler.

"We are now also looking to recruit a number of producers to meet the ever-increasing demand for Meadow's products."

"This is an exciting time for the business as we grow and extend our product range and reach, so I would encourage producers to take a fresh look at Meadow Foods to see what we have to offer you."

Expert analysis

Peter Meehan at FC Stone said: "Europe's EEX Dairy commodity futures remained firm this week as less-than-ideal grazing conditions throughout parts of western Europe continue to affect milk supply.

"European spot commodity prices moved higher again this week, with European butter prices climbing 17% over the past four weeks and SMP prices up more than 8% in the past three weeks.

"Supply-side concerns continue to provide support to the market, with the latest March milk collections numbers showing UK milk collections down 2.1% on last year [-0.4% in milk solid terms due to higher fat and protein content], New Zealand milk collections down 1.5%, while US collections increased by 1.3%.

"On the demand side, Chinese imports were somewhat subdued in March versus 2017, with WMP, SMP and cheese imports seeing multi-year lows for March.

"The latest European milk price numbers are showing the average monthly European price for February coming in at 34.39 [£30.05] per 100kg of standard milk at 4.2% fat and 3.4% protein. This is down 1.07 [94p] on January's price, but up +2.4% or 0.82 [72p] on February 2017.

"The current butter and SMP futures prices suggest EU milk prices may be close to hitting their lowest ebb for 2018 and show signs of increases for the remainder of the year."

JOURNAL : Farmers Weekly

The Farmers Apprentice is a unique opportunity for young people aged 18-25 who have their hearts set on a career in agriculture.

With the applications for this year's competition read and the entry videos watched, we now we can reveal the 10 Farmers Apprentice candidates who'll be going head-to-head at bootcamp this July in the hope of winning the £10,000 prize to kick-start their farming ambitions.

Tess Gosney, 19

Tess is in her first year at Durham University, studying for a Business and Management degree.

While she's picked up valuable skills working in the hospitality sector, her heart is definitely at home on the family's organic beef farm in Dorset.

She has always been a staunch advocate of agriculture and says one of her goals is to change the public's "blurred" view of British farming.

What is Farmers Apprentice?

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Farmers Apprentice is a unique competition which puts 10 young people through a week-long bootcamp seeing them tackle a range of tasks. At the end, one will be crowned Farmers Weekly Farmers Apprentice 2018, winning £10,000 to get a foothold on the farming ladder.

Farmers Weekly works with partners from across the agricultural industry to deliver a bootcamp that exposes the apprentices to some of the best in technical equipment and expertise reflecting the real challenges UK farmers face

Why she's one to watch

Her organisational skills have been honed at uni and she thrives in a deadline-driven environment.

She says: "I pride myself on being able to face difficult situations in a professional manner and having the ability to stay focused when the pressure is high."

Multiskilled Tess also reckons she's got a lot of common sense – which, she says, is paramount on a farm.

Interesting fact

Her favourite tractor is the Fendt 939. "Or it was until I heard about the 1000 series – but I'm yet to achieve my goal of seeing one of those in real life!"

Mitchell Park, 22

Mitchell, who's in the final year of an Agricultural Technology Degree at Queen's University in Belfast, is from a family farm in County Antrim, which is where he plans to make his career after he graduates.

He seized the opportunity to spend six months of his year-out in Australia, where he got an insight into problem-solving Aussie-style and saw first-hand how farmers there were cutting costs.

He spent the rest of that year back in Ballymena starting to put into place some of what he had learned on his travels.

Why he's one to watch

Mitchell has a clear idea what he hopes to get from bootcamp. "It would give me an excellent opportunity to develop my knowledge and skills, as well as learn from the other contestants and to see how people my age from different backgrounds address problems that I may face or have already faced."

Interesting fact

He's been scuba diving on the Great Barrier Reef.

Benjamin Theaker, 23

Benjamin works at Worksop Manor Estates in Nottinghamshire, where he's gone from "picking ragwort and sweeping sheds to becoming a key member of the team by earning my stripes".

His commitment and talent prompted his employer to sponsor him, age 20, to take a level three extended diploma in agriculture at Nottingham Trent's Brackenhurst campus, where he achieved a triple star distinction.

Why he's one to watch

A great believer in lifelong learning, Benjamin never misses an opportunity to broaden his knowledge and reckons he's lucky to work with a team that's "the best of the best".

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Though not from a farming background, he's immersed himself in the agricultural way of life and even founded a YFC while at Brackenhurst. "I will put everything I have into the bootcamp experience," he promises.

Interesting fact

One of his hobbies is chainsaw carving.

Lauren Salisbury-Arndt, 21

After leaving school, Lauren attended Llysfasi agricultural college, achieving the highest grade possible, along with netting an award from Lantra.

She's in the final year of an Agriculture with Animal Science degree at the University of Aberystwyth where her extra-curricular activities have included serving as president of the university's Agricultural Society and being involved with a naked charity calendar.

Why she's one to watch

Reared on a beef and sheep farm in North Wales, Lauren's roots are definitely in farming and she's notched up notable stock judging and public speaking successes with Young Farmers.

"Taking a placement at a livestock trading company, working on local farms and for a local vet in Wrexham has opened my eyes to what's out there," she says.

Interesting fact

Lauren loves to set herself challenges – the latest one being buying a huntaway pup, Kim, to train.

Tayla Harding, 19

Originally from Northamptonshire, Tayla is in the second year of a degree in Applied Farm Management at the Royal Agricultural University, where she enjoys hunting with the RAU beagles.

Having grown up on a livestock farm from the age of seven, she has a passion for the sheep sector and has done shepherding work at college.

This has helped shape her understanding of the traits required for a successful career in agriculture – "management and practical skills, motivation, a lot of hard work and incredibly long days."

Why she's one to watch

Long-term Tayla wants to develop her own consultancy firm, helping farmers make their enterprises as sustainable and efficient as possible.

"My ambition is to work alongside breed and genetic advisers, developing complex, highly desirable composite sheep breeds."

Interesting fact

Her middle name is Blayze because she had bright ginger hair when she was born.

Sam Coote, 22

County Durham lad Sam is studying an agricultural management degree at Askham Bryan.

Sam's had a great passion for the outdoors and agriculture from a young age, but his journey into agriculture only really began in 2011 when he left school at 16 and studied a Level 2 Diploma in Agriculture.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Since then, he's gone from he's being a self-confessed townie kid who knew nothing about farming to someone who's worked his way through further and higher education, "striving year on year to be the very best that I can possibly be".

Why he's one to watch

Approaching the end of his degree, versatile Sam is well aware of how winning the Farmers Apprentice could change his life.

"Not having a family farm to go back to, any opportunity that might allow to me get on to that farming ladder and begin my own adventure in the industry is worth a shot."

Interesting fact

Sam is chairman and treasurer of Durham City YFC.

Libby Ramsden, 18

Hailing from the North Yorkshire Dales, Libby is studying A-levels at Hartpury in Gloucestershire and working part-time on a beef farm.

Why she's one to watch

Not being from a farming background has never held her back – in fact, it's merely spurred her on.

She's done lots of voluntary work to gain experience, including regularly getting up to help with the 4am weekend milkings at Hartpury.

Hard-working Libby has her heart set on a career in the livestock sector, possibly as a nutritionist, and believes taking part in Farmers Apprentice can help get her closer to that goal.

"I have always been a girl who isn't afraid of anything, who'll stand up for herself, will get her hands dirty and speak out for the things that she believes in – and I believe in the future of agriculture and desperately want to be a part of that," she says.

Interesting fact

As a child, Libby completed triathlons.

Harry Madin, 21

Harry is studying a degree in Applied Agriculture at Askham Bryan College and has his heart set on becoming a tenant farmer in the Lake District as he's passionate about hill and upland shepherding.

It's a big ambition, but he says he has the necessary traits of "resilience, determination and commitment".

Why he's one to watch

Alongside studying, working part-time and playing football and cricket with local teams, versatile Harry runs his own rare breed Derbyshire Gritstone and Herdwick sheep. The store lambs from his small flock achieved the second highest price at Leek market at his first attempt at an auction sale.

Interesting fact

Although having no previous experience of the endeavour, he's had a lot of success training his border collie, though admits to employing an unorthodox method – using a football because initially she had no interest in stock. "Now she is now a fantastic working dog," he says.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Abbie Bruni, 25

Originally from Surrey, Abbie is studying Veterinary Medicine at the Royal Veterinary College.

She's very conscious of the big issues that farmers face, such as global warming, the growing trend towards plant-based diets and the dwindling numbers of smaller, accessible and economically viable abattoirs.

She wants to promote a more sustainable UK farming system and is a big believer in the power of social media to help get the message out and educate the public.

Why she's one to watch

One of the people who inspires Abbie is 2016 Farmers Weekly Awards Sheep Farmer of the Year, Gordon Wyeth, who she's helped with lambing. She says:

"I've learned lots from Gordon – mainly that no matter how tired and stressed you feel, always stay patient, kind and understanding."

Interesting fact

Up-for-a-challenge Abbie took a year out from uni to work as cabin crew for British Airways.

Ashley Gallagher, 23

Ashley is a stockman with a pedigree Jersey herd near Chepstow in south Wales, producing high-quality milk and ice cream.

Growing up in Northern Ireland he made it his mission to work at weekends and during holidays for his uncles who were farmers and, suitably inspired, he "moved across the water" to develop his career after A-levels.

Why he's one to watch

He has a lifelong interest in animals, the countryside and working with machinery. Adaptable Ashley says taking part in the Farmers Apprentice will help him figure out the best way to realise his dream.

He's energised by the prospect of meeting like-minded people – and says if he did win he'd try to get a farm business tenancy or share-farming agreement and use the prize money to buy livestock.

Interesting fact

Ashley says even though he can't sing very well, it never stops him from singing along to the radio in the tractor or parlour.

Sponsored by

See the Farmers Apprentice website for more information about the competition and bootcamp details, and follow the competition @farmersweekly, #farmersapprentice.

JOURNAL : Farmers Weekly

At just 21, Laura Green is not just the youngest judge at this year's Royal Highland Show (21-24 June) – she's one of the youngest ever to **hand** out honours at the prestigious event.

"It's something I would normally only dream of getting asked to do," Laura says.

"Getting invited to preside over the Beef Young Handlers class is an amazing opportunity, so I'm really excited, although a little nervous. Once I get in the ring though, I know the nerves will disappear and I'll relax."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

See also: Balmoral Show 2018 highlights and photos

Although a seasoned competitor in young handler classes herself – and having notched up lots of stock judging experience in other situations – this will be the first time she has judged at a show.

It's all in the presentation

The SRUC graduate from Morayshire has a clear idea of what she's looking for. "The young handlers class is about presenting their animals to the best of their abilities."

"I like to see the handlers paying attention to the judge and being very attentive to – and aware of – the animal itself. If you're showing, you certainly can't let an animal see or sense you're nervous. The handlers should also be dressed very smartly."

The Green family has strong connections to the Highland Show, having attended for four generations and more recently exhibited with their world-renowned stock, winning the Simmental Champion title in 2014 and the Junior Interbreed titles in 2013 and 2016 with home-bred animals.

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This year the family are taking eight Simmentals under the family prefix of Corksie and two under the Garmouth prefix, which Laura founded in 2011 when she was given a nine-month-old heifer called Corskie Clover for her 15th birthday.

"My very first calf under my prefix, Garmouth Clover's Elderflower, was Reserve Junior Champion at the Royal Highland Show in 2015," she says. "The previous year, her mother was placed first in her class and together they won Best Cow and Calf in the Simmental section.

"We use Facebook quite a lot, but we don't really do any advertising, so the event is a great shop window for the business. We also attend about 10 local shows and go to about six pedigree sales a year, mainly Thainstone, Carlisle and Stirling. We also sell a lot of stock privately."

Going home to bury underpants

Laura returned home to work full-time alongside dad Iain on the 1,500-acre family farm after graduating from SRUC's Craibstone campus last July with a distinction in a rural business management degree.

The course, she says, represented "the best of both worlds", combining agriculture with finance, economics and management.

"I commuted over an hour each way every day, but that meant I could work on the farm the whole time I was at college. There were times that were incredibly busy – and I came close to missing deadlines on a few occasions but never did."

The business has arable, sheep and pig enterprises, alongside the cattle – which are her main passion. "I love working with them – you get to know them all and their individual characters."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It has recently become part of the QMS/AHDB Monitor Farm programme, designed to spread best practice and help improve productivity and profitability. In fact, the farm made headlines recently as the site of a “pants-burying” experiment.

It was a bit of fun, but explored a serious point, recalls Laura. The idea was to bury pairs of cotton underpants in different soils and see how they decomposed.

If they rotted quickly, it would suggest the soil was healthy and full of bugs; if they didn't, it would show the soil wasn't the same quality. “STV news came out to the farm. The whole thing went viral.”

Technology lines

As well as the “best of the best” in the livestock lines, she's looking forward to perusing the new technology at the show.

It'll be a chance, as well, to catch up with old friends, including those she met through the Aberdeen Angus Youth Development Programme, the Simmental Young Members or the Scottish Association of Young Farmers' Clubs.

“I joined YFC as soon as I could and never looked back. I did everything from stock judging and sports to ropemaking and tug of war.”

She'll be at the show – which she first attended “as a toddler or even younger” – for the whole four days, staying in a caravan on the site.

“We'll come back exhausted, but I can't wait to be a judge. It's so important to encourage and educate the younger generation in showmanship. It helps them improve their skills, meet new people and gain valuable knowledge in working at a high standard. Young people working at this level bring valuable enthusiasm and new ideas.”

Building up the herd

Meanwhile, Laura continues to build her own herd.

For Christmas 2014 she was given another heifer, Corskie Fame, which went on to win red rosettes at the local shows.

In April 2015 she made her first purchase at Carlisle, snapping up Sterling Verity's Dumandy, who had Stirling Dumandy's Glory at foot, for 4,200gns.

Clover has also gone out to produce more stock, including a full brother to Elderflower, Garmouth Iceman who won his class at the Scottish National Simmental Show in 2017.

She also recently bought two in-calf Shorthorns in a bid to meet the demand for bulls for their commercial herd. “It was my idea and, as my dad said, the day they arrived on the farm will be one I'll never forget.”

And as if all this isn't enough, she's also got a wedding to plan – she's getting married next May.

As for why her and husband-to-be Robert picked that month, well, it's a relatively quiet time on the farm.

It's just before first-cut silage, the cows will have gone out to grass, the sheep will have finished lambing and it's just before the Highland Show. “I've got to make sure I'm back from honeymoon in time for that, after all!”

JOURNAL : Farmers Weekly

Arla has increased its standard manufacturing litre milk price by 1.15p/litre from 1 June.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The rise means the 2,400 producers of the UK's largest dairy **co-op** will receive 28.58p/litre for milk with a constituent content of 4.2% butterfat and 3.4% protein.

This equates to 27.51p/litre for liquid litres of 4% butterfat and 3.3% protein.

See also: Use profits to prepare for rising costs, dairy farmers told

The upwards price movement is the **co-op's** first substantial increase since October 2017, when Arla's manufacturing litre was 13% higher at 32.3p/litre.

"After a challenging start to the year, I am confident that this milk price increase will be welcomed by our farmer owners who have faced difficulties through unforeseen, extreme, conditions in the winter and early spring," said Arla Foods amba board director, Johnnie Russell.

"The increase has been possible due to the strengthening of the markets."

<https://infogram.com/arla-price-june-18-1hxj48rk0m7q6vg>

Mr Russell said despite improving weather, the long cold spring in some areas reduced output leaving commodity markets short of product.

"This, coupled with increased export demand and strong European demand, has pushed prices higher, particularly in cheese and butter, while skim-milk powder prices have been slightly stronger than expected," he added.

JOURNAL : Farmers Weekly

The Advertising Standards Agency (ASA) has rejected a claim made against poultry supplier Winterton Brothers that its pre-stunned chicken could not be called "100% halal".

The firm advertises itself as a family-run business specialising in supplying halal poultry meat, and its website prominently advertises it offers "original 100% halal", which was considered misleading by the complainant.

See also: Why halal will be critical for UK meat market

Halal, which simply means "permitted", requires animals to be killed by a Muslim, who offers a short blessing before delivering a clean cut to the neck with a razor sharp blade, severing the carotid artery, jugular vein and windpipe.

In practice, most halal poultry in the UK is submerged in an electrified water bath set to deliver a "recoverable stun" before killing.

Intervention opposed

Some Muslims oppose this intervention, claiming it is more humane – and more in line with their beliefs – to deliver the kill without stunning.

But most halal certification bodies in Britain accept pre-stunned meat as halal, and it was for this reason the ASA did not uphold the complaint made against Winterton Brothers.

It said the company's poultrymeat, which in this case was supplied by Highbury Poultry, was consistent with normal standards for halal slaughter.

Approved methods

"The website of the Halal Food Authority stated they did allow the stunning of birds and animals, provided that process did not kill the animals and it was carried out by certain approved methods," said the ASA ruling.

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"Although we recognised there was some division of opinion on the role of stunning in the halal slaughtering process, the requirements for halal slaughter did not appear to prohibit stunning and we understood the vast majority of halal meat sold in the UK was slaughtered using that method."

Winterton Brothers was approached for comment.

JOURNAL : Farmers Weekly

German chemical giant Bayer will ditch the controversial Monsanto name as it prepares to close a \$63bn takeover of the US seed and spray company on Thursday.

Monsanto, a 117-year-old brand, has long attracted criticism from environmental campaigners who oppose its use of genetically modified seed, and the brand was recently ranked the 16th most-hated in the US.

The combined entity will create the world's largest seeds and agrochemical supplier despite Dow's merger with Dupont and ChemChina's takeover of Syngenta.

See also: Blackgrass battle looks winnable for Suffolk grower

In the UK, it will give Bayer control of one-quarter of the oilseed rape market under the Dekalb brand, as well as glyphosate, the best-selling herbicide of all time.

The deal, announced some 18 months ago, cleared its final regulatory hurdle last week after approval from US authorities and Bayer chief executive Werner Baumann said he expects it to go into effect on 7 June.

To gain approval in Europe, Bayer had to sell its existing InVigor oilseed rape varieties and hybrid wheat-breeding programme to fellow German group BASF, alongside more significant assets in the US.

Despite this, its total agricultural business will double in size, giving it annual sales of almost 20bn, nearly 50% bigger than nearest rival ChemChina.

JOURNAL : Farmers Weekly

An influential committee of MPs has lambasted Defra's approach to Brexit, saying farmers urgently need more detail about support mechanisms for agriculture after the UK leaves the European Union.

The warning follows a three-month inquiry examining whether Defra will deliver on proposals to increase farm competitiveness and enhance the environment. The inquiry was conducted by the House of Commons Environment, Food and Rural Affairs (Efra) committee.

See also: Thousands respond to 'health and harmony' consultation

Defra wants to replace direct payments with a system largely based on support for environmental measures. However, farm leaders say the plan fails to recognise the importance of agriculture and threatens to expose UK farmers to substandard food imports.

The committee of MPs recommend that the government ring-fences future funding for farming, provides greater detail on new support mechanisms – including tax breaks and capital grants – and maintains environmental and welfare standards on food imports (see "Efra committee key recommendations").

Banned in UK

This week, American president Donald Trump blamed "big trade barriers" for discriminating against US farmers, reigniting fears that British farmers may have to compete against imports of chlorinated chicken and hormone-produced beef – both currently banned in the UK.

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Committee chairman Neil Parish said a new funding model for agriculture was essential to ensure farming prospered after Brexit. It is also important that any trade agreements ensure imported products met UK standards and avoided a regulatory race to the bottom.

Mr Parish said: "We seek more clarity on funding, delivery and timing. The government risks not achieving its ambition and damaging the sector. The government should respond to the farming sector's concerns and provide clarity as soon as possible."

NFU president Minette Batters welcomed the report's recommendation that the government rejects any trade deal that paves the way for food imports below UK standards. She added: "It is vital that British farming's produce and contribution to the nation is not undermined."

Fresh approach

A Defra spokesperson said Brexit was a historic opportunity to design a fresh approach to farming. "We have set out ambitious proposals to raise productivity and move away from land-based subsidies so we can reward farmers for the public goods they provide."

The government has committed to match the £3bn in farm support until the end of this parliament in 2022, followed by a longer agricultural transition period to give farmers time to adapt, said the Defra spokesperson.

"We had more than 44,000 responses to our consultation, which we are analysing before bringing forward an Agriculture Bill later this year. We welcome the support shown by the Efra committee for this consultation and will respond to their report in due course."

Efra committee key recommendations

Support: Withdrawing direct payments will be "particularly damaging" for grazing livestock, cereal and mixed farms. The government should identify support for small and medium-sized farms and ring-fence funds for the rural economy and environment.

Competitiveness: The government should produce a farm productivity plan by May 2019 that investigates new tax breaks, advice centres, capital grant support and the successor to the government's agri-tech fund, among other areas.

Environment: There is broad support for animal health and welfare within Defra's planned policy of "public money for public goods". But the report says the government should consider food policy and its ability to improve public health more widely.

Standards: It will be hard for Defra to find the right body to co-ordinate its national public goods framework and avoid a "race to the bottom" in standards. An assessment of public bodies is required to co-ordinate a planned environmental land management scheme.

Trade and labelling: The government should ensure that any trade agreements keep agri-food imports out of the country if they are below the UK's environmental, animal welfare and food standards. This will be supported by better country-of-origin labelling.

JOURNAL : Farmers Weekly

MPs have launched an inquiry into government plans for an environmental watchdog after the UK leaves the EU.

Defra wants to replace the role of the European Commission and European Court of Justice in enforcing rules on air, waste, water pollution and protecting wildlife.

The House of Commons Environmental Audit Committee said it wanted to scrutinise the proposals – and Defra plans to bring the EU's environmental principles into UK law.

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See also: Gove's 'green watchdog' plan under fire

Defra says the body will provide independent scrutiny and advice on government policy – and will be able to hold the government to account on environmental legislation.

But landowners and environmental campaigners have both raised questions about the plan.

Confusion and complexity

The Country Land and Business Association said the plans risked adding confusion and complexity rather than genuine accountability to environmental policy.

Committee chairman Mary Creagh said ministers must ensure that the environment, wildlife and the ability to hold the government to account on air pollution must not be lost after Brexit.

“The new watchdog will not be ready in time for exit day in March 2019, and Green groups have criticised the proposed watchdog as toothless,” she said.

High standards

“We will be looking closely at whether the government’s proposals live up to its promises to keep high environmental standards after leaving the EU.”

The committee’s investigation will build on the written and oral evidence taken during its inquiry on the government’s 25-year plan for the environment.

Ms Creagh said the committee welcomed further written submissions on any of the issues raised by the government’s consultation on its plans to establish a new environmental watchdog.

Submissions should be made by 5 pm on Friday 1 June so the committee can conclude its inquiry in time to report before the government’s consultation closes on 2 August 2018.

JOURNAL : Farmers Weekly

The Rural Payments Agency (RPA) is “failing on multiple levels”, which is causing significant harm to farmers and raises questions about its ability to deliver in a post-Brexit era, according to MPs.

The warning is contained in a report on the performance of the RPA, published by the Environment, Food and Rural Affairs (Efra) select committee, which concludes the agency is failing in its core duties.

It is the latest in a long line of official reports published over the past decade which have attacked the RPA over problems in getting support payments out to farmers (see ‘A history of RPA failure’, below).

See also: BPS delays down to childish turf war between civil servants

The report says it is “unacceptable” that more than 3,000 farmers had not been paid under the Basic Payment Scheme by March 2018, as farmers should be able to rely on getting their payments on time.

“Communications with farmers and the complaints handling system remain poor,” said MPs.

“There are also widespread concerns over errors from recent mapping updates and inaccurate payments. This is simply not good enough.”

Brexit transition

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The committee says it has concerns about the agency's ability to handle the extra burden of delivering the Countryside Stewardship and Environmental Stewardship schemes, responsibility for which is being transferred across from Natural England.

Neil Parish, chairman of the committee, says the group is also not confident the RPA has the capacity or expertise to deliver a seamless Brexit transition.

"Substantial improvements across the organisation are needed to address this."

New target?

Committee members recommended that the RPA should stretch itself by setting a target of paying 98% of BPS claims by the end of March each year – rather than its 2017 target of paying 90% of customers by the end of December.

They point out farmers are becoming increasingly frustrated at having to spend time and effort correcting mapping errors which are not their fault.

Instead of making farmers submit a paper-based RLE1 form to rectify these, the RPA should develop a system that allows farmers to make direct changes to the online mapping register.

A history of RPA failure

2006 National Audit Office reports that RPA's mismanagement of Single Payment Scheme has cost farmers millions of pounds.

2007 Efra committee sums up the RPA's inability to pay 2005 SPS payments on time as "a catastrophe for some farmers, and a serious and embarrassing failure for Defra and the RPA".

2009 Public Accounts Committee investigates SPS problems and concludes that a disastrous IT system, poor management and delays in payments have contributed to the biggest debacle in the committee's history.

2009 Parliamentary and Health Service Ombudsman rules it has found cases of maladministration in the implementation of the Single Payment Scheme.

2016 Public Accounts Committee concludes a "childish turf war" between civil servants in Defra, the RPA and the government's digital service is to blame for major BPS delays.

2016 Efra committee reports that farmers are facing "unacceptable" waits for their BPS payments.

2018 Efra committee says RPA is still "failing on multiple levels".

JOURNAL : Farmers Weekly

More than 50 MPs are demanding urgent action to end the "unacceptably poor" mobile phone coverage in rural areas.

Expressing concern about progress to date, the MPs are calling for a legally binding coverage obligation imposed on all four major operators – EE, O2, Three and Vodafone – to support the Department for Digital, Media, Culture and Sport's stated ambition to deliver mobile coverage to 95% of UK geographic landmass by the end of 2022.

The government has estimated that achieving this ambition would add £75bn to the UK's gross domestic product.

See also: 'Rutland is worst place for 4G in England'

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The letter has been signed by 56 MPs from parties including the Conservatives, Labour, Liberal Democrats, Scottish Nationals and Plaid Cymru.

It challenges the government's digital secretary Matthew Hancock to bring forward its current speed and ambition of 4G mobile coverage – which is up to 10 times faster than 3G services and allows you to stream films or videos to your mobile phone.

The letter suggests:

Imposing a legally binding coverage obligation on all four major operators

A rethink of Ofcom's statutory obligations clarifying its main purpose must be to work towards the delivery of universal quality mobile coverage

New laws to prevent mobile operators hiding behind "commercial confidentiality" and refusing to tell communities where and when they plan to roll out coverage

The letter has been co-ordinated by the All Party Parliamentary Group for Rural Business, which is chaired by Julian Sturdy, Conservative MP for York Outer.

Progress 'not good enough'

Mr Sturdy said: "Ofcom's Connected Nations report in December 2017 revealed while people inside 90% of UK premises can make telephone calls on all four mobile networks, this falls to 57% in rural areas.

"This is just not good enough and progress in connecting the countryside has been painfully slow. We are asking the secretary of state Mr Hancock to step in and work with Ofcom to ensure the mobile operators speed up delivery of 4G to rural areas."

The MPs' collective action follows a report by the Country Land and Business Association (CLA) last month which revealed that in 2015, 2016 and 2017 mobile network operators have been failing to submit applications for new masts to improve mobile coverage in some of the rural areas with the worst 4G coverage.

Rural areas 'disadvantaged'

CLA deputy president Mark Bridgeman, who farms in Northumberland, said people living in rural areas have been disadvantaged by poor mobile phone coverage for too long due to network operators' failure to resolve poor signal and mobile "not-spots".

According to Ofcom, For example, 30% of the UK's landmass is not covered by all four mobile operators. This increases to 60% in Scotland.

JOURNAL : Farmers Weekly

After years of exclusion, agricultural contractors finally have the opportunity to unlock potential funding in post-Brexit agricultural policy.

This is the message from the National Association of Agricultural Contractors (NAAC), which has been lobbying the government to try to get contractors the recognition it believes they deserve.

"There has been a lot of dramatic reporting about the Defra 'Health and Harmony' consultation being a once-in-a-lifetime opportunity – but for contractors it really is just that," says Jill Hewitt (below), NAAC technical and political adviser.

See also: NAAC farm contractor charges 2018-19

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“For years, contractors have been specifically excluded from agricultural funding under EU law and therefore unable to access grants for capital investment, upskilling or innovation.

However, in the current Brexit negotiations we have the opportunity to make a positive change and it is important that we take the initiative.”

The NAAC is not only seeking access to capital grants, but also for formal recognition of agricultural contractors within legislation, policy making and across the industry.

“An estimated 91% of farmers now use a contractor and many rely on their services either providing specialist operations or for whole farm management.

'Farmers without land'

“Contractors have effectively become ‘farmers without land’, offering advice, skilled labour, high-capital-cost machinery and professional services to land owners,” Ms Hewitt says.

“They must not be forgotten in the new agricultural landscape and the NAAC will be working to ensure that the future of agriculture firmly embraces professional contractors.

“Their services can bring out-of-reach capital investment into reality for many farmers – technology that may have been unsustainable for one farmer alone.”

Farmers have been given access to high-tech, expensive machinery through contractor investment while contributing to the government’s targets to reduce ammonia emissions in particular.

However, for contractors to invest, the NAAC insists that they must have equal opportunities, recognition and access to agricultural funding and training to have the confidence and incentives to take calculated risks, push the boundaries and introduce new technologies that can propel the farming industry forward.

JOURNAL : Farmers Weekly

The NAAC recently published its contracting price guide for 2018, but has put out a stark warning that businesses cannot afford to be complacent and simply rely on these national averages.

The cost of every operation varies according to soil type, condition and customer size – as well as the machinery and scale of the business – so it is vital that contractors really get to grips with what each job costs them to perform before working out their charges.

Equally, with an estimated 91% of farmers using a contractor, the NAAC insists that its guide prices should not be seen as a tool to beat contractor prices down but as a national average to assist the industry in making sound business decisions for both contractors and farmers.

Read and download: NAAC Contracting Charges Guide 2018

This year’s guide is based on 50p/litre for red diesel, but the price has already shot up to nearer 60p/litre. This needs to be taken into account, said Mr Baker.

“While this may appear to be scaremongering, it should be considered that labour, insurance, maintenance and servicing costs are also continuing to rise and it is no longer possible for contractors and their customers to bury their heads in the sand,” he added.

“The industry needs to work together to ensure the contracting sector can run professional, safe and efficient operations, providing skilled labour, specialised machinery and professional services to land owners in a post-Brexit era.”

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JOURNAL : Farmers Weekly

Phenomenal and at times record cull cow prices have been unable to coax more cows to market, as auctioneers report a national average price of 132.88p/kg to start June.

This leaves cows at least £100 a head dearer after starting the year at 110p/kg, as even the poorer sorts make 90p/kg.

However, auctioneers say TB restrictions mean many are being sold deadweight.

The AHDB also reports that deadweight supplies may be tightening. Its figures show liveweight throughputs are back 19.8% on the year for the four weeks from 12 May. And slaughter figures for May (8,500-9,000 head) are down on April's weekly totals of just over 10,000 head.

See also: How to prevent fertility issues in dairy cows due to lameness

Gisburn

Gisburn's cull throughputs are decreasing as TB restrictions start to affect cattle trading in Lancashire. Cull cows met a flying trade on Thursday (31 May), including an astonishing bid of £1,600.60 for a trade-topping continental cow, with 59 culls averaging £854 overall.

Best beef cows made 157.9p/kg, 22 primes made 130p/kg, 29 dairy cows made 121p/kg and leaner cows made 98.5p/kg.

"It's the trade there for the lean cows that is astonishing," dairy auctioneer Fred Spurgeon says.

He says he hasn't seen a cow at 80p/kg or less for a long time.

"We would expect to see nearer 100 cows a week really, so numbers are down. About 20 mart regulars are currently under TB restriction."

Mr Spurgeon says increasing TB restrictions in northern England is limiting the number going live. "At £25 to test an animal, you're not going to test a cull cow – you can send it deadweight instead."

Market Drayton

Barbers throughputs are also 50-80 head down on the year at Market Drayton. This is helping trade hit some big prices – sucklers have topped at 190p/kg and dairy culls hit 160p/kg recently (4 June).

Auctioneer and partner Mark Jones has seen numbers drop over the past six or seven years from highs of 600-650 to 200-250 since red markets started, with 124 reported last week.

He says there is less interest in buying feeding cows, with good prices leading to cows being cashed and culled earlier.

"One issue is that for the larger dairies a fortnightly mart isn't often enough if they are under TB restrictions, so they opt to sell deadweight instead," says Mr Jones. "There have been a few vendors who have been tempted back to the mart with the trade as good as it is for all types of cows, although some have been lost for good, it seems."

Dumfries

Fodder shortages forced people to sell cows in south-west Scotland earlier in the year, leaving supplies tight, prices high and a very firm outlook for the rest of the summer.

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This is according to Harry Begg of C and D Auction Marts, who is regularly seeing leaner cull cows over 100p/kg and generally over 90p/kg.

Throughputs through January to April were up to 80-120 head a week, but are now down to 50 head, which is reflective of typical summer throughputs.

A small number of Irish bidders were helping trade, sometimes taking 50-60% of the yarding, Mr Begg adds.

"I see no reason why the price will drop at all. I think cow numbers will remain tight for the rest of the summer."

JOURNAL : Farmers Weekly

The government is seeking to beef up and expand the network of national parks and Areas of Outstanding Natural Beauty (AONB) as part of a review launched by Defra secretary Michael Gove.

According to Mr Gove, the creation of national parks almost 70 years ago "changed the way we view our precious landscapes – helping us all access and enjoy our natural world".

See also: Defra cash injection to fund English peat bog restoration

"Amid a growing population, changes in technology and a decline in certain habitats, the time is right for us to look afresh at these landscapes," he said.

"We want to make sure they are not only conserved, but enhanced for the next generation."

The review is one of the key commitments under the government's 25-year Environment Plan, published last January.

The national parks network and review

There are 10 national parks and 34 Areas of Natural Beauty, covering about 25% of the landmass and home to more than two million people.

Defra claims they generate £20bn for the rural economy, and support 75,000 jobs.

The review will be chaired by associate editor at the London Evening Standard, Julian Glover, and will report in 2019 – the 70th anniversary of the first national park. It will not cover Wales, Scotland or Northern Ireland.

While stressing the aim is not to impose new burdens on people who live and work in the national parks, the terms of reference also make clear "weakening or undermining their existing protections or geographic scope will not be part of the review".

"It will instead focus on how designated areas can boost wildlife, support the recovery of natural habitats and connect more people with nature," said a statement.

Defra has also made clear it wants to explore ways of expanding the area covered by national parks and AONBs, and improving public access.

Question of balance

Commenting on the launch, the Country Land and Business Association (CLA) said it was essential the review struck the right balance between ensuring natural beauty and encouraging the right types of economic activity.

"Most businesses within designated landscapes experience significant opposition and hostility to development of any kind," said CLA president Tim Breitmeyer.

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“Success in this review will see more landowners, users, park authorities and conservation boards coming together to identify opportunities which deliver the right types of sensitive development to improve the use and enjoyment of these unique areas.”

But the Liberal Democrats have described Mr Gove as a “one-trick pony, reluctant to commit to anything more than a review or a consultation”.

Case study: Farmer’s diversification woes inside a national park

One farmer who has experienced issues with the national parks is Susie Macmillan, who keeps 18,000 organic layers at her farm in Ditchling, East Sussex.

Given the tight margins associated with egg production, she has been seeking to develop a camping diversification, including 20 wooden lodges in one of the fields on the very edge of the South Downs national park.

“It has been an absolute nightmare getting the required permission from the national park authority,” she said. “It has cost us £26,000, not to mention the time, uncertainty and stress it has put on us.

“We now have the planning permission, but it is subject to 30 conditions. It has been made so difficult – they just don’t want to see any change at all.

“I accept the national parks do a lot of good, for example in preventing the development of new housing estates on green spaces. But unless they become more flexible and more pro-farming – and recognise farming has to change and develop too – then more of us will be forced out of business.”

JOURNAL : Farmers Weekly

There have been a number new sales and service agreements for various brands and dealers; we round up what’s been going on.

See also: Video: 400hp reverse-drive Valtra S-series on test

Horsch

German maker Horsch has strengthened its presence in Scotland, with Kelso and Lothian Harvesters taking on the full range of Horsch sprayers and land working products, while in Derbyshire, Claas main dealer Alkmonton tractors has also been tasked with shifting the Horsch brand.

Kuhn

Owning four depots in Hampshire, Berkshire, West Sussex and Salisbury, Oakes Bros now has the job of selling the full lineup of Kuhn’s minimum tillage products and combination seed drills.

Claas

Machinery giant Claas no longer has a financial interest in Sellars, one of Scotland’s largest agricultural dealerships. The Scottish firm has seven branches and is taking the business back under family control after buying out the minority stake held by Claas.

Polaris

Small-scale machinery dealer AJ&R Scamblers has been tasked with selling Polaris products to the horticulture and agriculture industries, covering Cambridge, Norfolk and Suffolk.

Vicon

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Wanting to tap into the West Country market, Vicon has added James Pryce Tractors to its dealer network.

With depots at South Moulton and Tiverton in Devon, Pryce will offer the full range of Vicon kit including mowers, sprayers and tillage equipment.

Opico

The latest in a very long line of Opico appointments sees AB Wright Engineering, based in the Scottish Borders, add Maschio Gaspardo's tillage and mowing lineup to its portfolio.

JOURNAL : Farmers Weekly

Pottinger's line-up of Torro Combiline forage wagons now has two larger models – the Torro 7010 and the bigger Torro 8010.

Thanks to a new beater drive line, which has been added to the full Torro and Jumbo Combiline ranges, output power now peaks at 160kW (which translates into torque of 1,700Nm), speeding up the unloading process, the firm says.

An optional extra for the Torro Combiline models is a four-tonne drawbar, which provides extra traction in the field and at the clamp.

The new wagons can also be equipped with an optional driver assist system. This has integrated sensors for driving speed and driving direction, and in automatic mode the axle is locked so that it steers straight when reversing at speed and when driving along an incline or slope.

See also: Forage wagon v precision chop for a multi-cut silage system

In addition, the driver can set a threshold to lock the steered axle on the slope, and a second for maximum incline work, with a warning displayed on the screen when the limits are hit, to minimise the overturning risk.

Weight limit

A new weighing system allows the weight of a load to be displayed while driving. A maximum load limit can be preset, with the display turning red and a warning alarm sounding if this weight is exceeded.

The system is operated using Pottinger's power control terminal, and new 32-bit hardware means it can be used without Isobus.

Other additions include new Durastar knives, which have a mixture of hard and soft steel. The 6mm-thick blades have a knife shape designed to be self-sharpening, for lower fuel consumption and higher chopping quality, the firm says.

JOURNAL : Farmers Weekly

Having been the butt of jokes for years, unfashionable Dacia is now developing something of a cult following for its bog-basic, no-frills car.

See also: Pickup test: 6 farm trucks compared

A recent get-together of a UK Dacia fan club clocked up an impressive 800 attendees and the Romanian manufacturer claims to be shifting more than 8,000 units a year in Britain.

Such has been the appeal of the company's biggest 4x4 – the Duster – that it has been taking Mercedes, BMWs and even a mid-1970s Bentley as trade-ins.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

And Renault-owned Dacia has now unveiled a new model that it hopes will build on the progress of its predecessor, which notched up more than 1.1 million sales since 2010.

First impressions are that the Comfort-spec model has a fresh skin, thanks to new external panels, and new headlights that sweep into the front wings make it seem wider, too.

Vital statistics

Dacia Duster 4x2 Comfort

Engine SCe 4-cyl 1.6-litre

Transmission 5-speed manual

Power 115@5,500rpm

Torque 156Nm@4,000rpm

Top speed 107mph

0-62mph 11.9secs

Average consumption 43.5mpg*

Warranty 3-year/60,000 miles

Price as tested £13,390

Base model price £9,995

*Manufacturer's figures

Engine

Our Desert Orange test car had the 1.6-litre SCe engine which we're told kicks out 115hp. A light kerb weight of 1,179kg means it should have ample power, but we found it was a little lackadaisical in providing any serious propulsion with two burly chaps in the front seats.

Although the Duster isn't known for mind-blowing speed, we had expected the 1.6-litre block to have a slightly better turn of pace – but it'll most definitely be residing in the "loser lane" on motorways.

The engine gets pretty loud as the car winds up to a cruising speed of 70mph. There are undoubtedly more comfortable vehicles for long commutes, but it's perfectly good for short jaunts on country roads.

The wing mirrors create a bit of unwanted wind noise at speed, although sound deadening has been improved across the whole car and a 0.35mm thicker windscreen means old-shape Duster owners should notice a marked improvement.

We'd probably go for the turbocharged (yes, turbocharged) diesel 1.4-litre four-pot, which had a bit more character than the slightly wimpy petrol offering. And with 260Nm of torque, it will certainly be more capable on towing duties.

Transmission

The five-speed manual box is basic but works fine, although a hefty left-arm shove is needed to get the clunky stick through each gate.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

We found the engine slow to drop when changing gears, which left the four-cylinder engine wildly revving away as we selected the next cog and contributed to a rather stressful experience.

As far as manuals go, we'd opt for the six-speed box if you plan to be on a motorway for any amount of time, but Dacia also offers an automatic option that might be a bit more chilled.

Interior

The Duster is a mishmash of many cars on the inside. The piano-button layout in the centre is similar to Audi's smaller cars (no shame there, then), the air-con dials have a whiff of Nissan about them and the steering wheel volume controls are almost unmistakably from a 1990s Renault Clio.

The 7in touchscreen is surprisingly competent at its tasks – Bluetooth streaming and a rear camera are standard features in the Comfort option – although it also offers up a slightly annoying “bing” every time the car enters a speed limit change.

The front seats have been redesigned but taller drivers might find the seating position a bit uncomfortable for extended journeys. There is no place to rest your left foot when it's not hoisted on to the rather loftily-positioned clutch pedal, either.

Likes

Cheap to buy and run

Good basic level of spec

New modern-ish styling

Hill hold assist

Gripes

Uncomfortable driving position

Irritating speed sign bleep

Asthmatic 1.6-litre engine

No foot rest for left foot

The top-spec Prestige gets keyless entry, multi-view cameras and a soft elbow rest on the door handle, which is a big improvement from the original Duster. In all, there are four spec levels – the other three are Essential, Comfort and Access – with varying trim levels, and only about 10 optional extras.

Off-road

With Nissan X-trail running gear, the Duster has some decent off-road pedigree and its “hill hold” system is a particular highlight.

Modest approach and departure angles, along with a ground clearance of 210mm on the 4x4 version, limit any serious off-roading – as does the omission of a low-range transfer box. That said, the Duster is more than capable bombing up a farm track or across stubble fields and is far more comfortable than a UTV.

Hill descent control is useful, but it pauses for slightly too long before taking hold on slopes.

Verdict

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Although the Duster now has a lot more standard kit, it still remains a very cheap and cheerful vehicle that is perfectly suited to life as a low-mileage runabout.

With some of the most respectable depreciation figures on the market, it will still be viewed as very budget motor and it'll take some beating in its price bracket.

However, we'd wait for either the diesel-powered 115hp 4x4 later this year, or the 130hp petrol engine due next year.

JOURNAL : Farmers Weekly

NFU president Minette Batters is to meet prime minister Theresa May to press home the case for British agriculture ahead of Brexit.

Ms Batters will raise a range of food and farming concerns from growers and livestock producers when she meets the prime minister on Tuesday, 26 June.

Farmers face major challenges as the UK prepares to leave the European Union, Ms Batters told an NFU council meeting at Stoneleigh on Tuesday (19 June).

See also: Analysis: Farm income squeeze predicted after Brexit

Her meeting with Mrs May comes weeks before the government is expected to publish its Agriculture Bill, outlining UK policies for food and farming post Brexit.

Ms Batters said it is important that future policy for agriculture ensures British food remains affordable – while enabling British farmers to make a living.

“This is not about a policy for the privileged few, this is about everyone,” she said. “We have been clear from day one: we as farmers want to produce food for all incomes in this country.

“Nobody, no person, whatever income they are on, must be disadvantaged from being unable to buy high-quality, affordable British food.”

Access to labour

Ms Batters said she would be making the case to Mrs May that farmers must have access to an adequate supply of seasonal labour – including temporary workers from overseas.

Growers have warned that the government's continued refusal to introduce a seasonal agricultural workers scheme threatens to leave crops unharvested again this year.

Ms Batters said: “This is our first one-to-one chance with the prime minister to say seasonal labour is not an immigration issue.”

She said she would also address the government's intention to replace direct payments to farmers with a new system largely based on environmental payments.

“We need to be very clear that any step back from direct support means the supply chain is currently not fit for purpose.”

Fair trade

The NFU is working with other organisations, including competition bodies, to ensure that farmers are able to trade in a fairer and more equitable way.

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Ms Batters also addressed concerns that Brexit could leave British farmers open to a raft of cut-price food imports produced using methods that would be illegal in the UK.

"I will also make it clear that this is an Agricultural Bill – and on the back of that we expect our standards [to be maintained]," she said.

"We have said from day one that we do not want to see our standards affected."

Animal welfare

"We believe in our standards of welfare, of food safety and environmental protection and therefore it will be a red line for the NFU.

"It is a yes or no answer – those standards must be reflected in the Agriculture Bill."

Ms Batters said there was a big lesson to learn from Sweden, which saw self-sufficiency in food plummet after ratcheting up animal welfare standards in the 1990s.

"A country that was 90% self-sufficient in 1995 is now in 2018 50% self-sufficient. On the back of that, what have they achieved? They import a lot more German food."

JOURNAL : Farmers Weekly

The NFU has called for "prompt, effective action" to deal with rural crime, after new Home Office figures show agricultural-related incidents are on the rise.

The figures in the 2017 Commercial Victimisation Survey, released on 3 May, are used to demonstrate to police and government the true extent of crime, with up-to-date statistics.

Within the agriculture, forestry and fishing sector, just over 27% of business premises experienced crime in 2017, similar to 2013 (30%), numbering 113,000 incidents in total.

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About 1,400 businesses were affected by robbery in 2017, while vandalism accounted for one-third of all crimes (37,000) and had the highest repeat victimisation rate at five incidents per premises.

The report states vehicle-related theft, robbery and fraud instances have increased since 2013, while burglary, vandalism, assaults and threats, and all thefts have decreased.

See also: Farm security advice to combat rural crime

The most common type of agriculture-related antisocial behaviour (ASB) was trespassing or unauthorised access of land or buildings, with just over one-third (35%) of premises having experienced this in 2017.

Prevalence rates across all types of ASB (including lamping, livestock worrying and using land for grazing animals without permission) have increased since 2013, but the report says none of the changes are "statistically significant".

Organised crime

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NFU deputy president Guy Smith said tackling rural crime has no simple fix and needs commitment and resources from both the police and government.

"These crimes have more in common with organised crime than simply spontaneous acts, and it all affects the daily lives of farmers in far-reaching and costly ways," Mr Smith said.

"It is time that we saw some considerable action being taken by the government and police to curb increasing crime in the countryside, and allow farmers to do what they do best – producing food for the nation."

Combating agricultural vehicle thefts

A scheme has been launched by Warwickshire Police to protect against thefts of agricultural vehicles.

"Police - stop, if moving between 10pm and 5am" stickers are available for farmers and agricultural businesses to apply to their vehicles.

If seen on the roads during these hours, police patrols not already engaged on calls will seek to check that they are being used by their rightful owner.

Developed in conjunction with Leicestershire Police, the new initiative is being run through the Rural Crime Project, which is funded by Warwickshire police and crime commissioner Philip Seccombe.

"Similar schemes have proved very successful in reducing the number of attacks against 'cash-in-transit' vans and we think it can have the same effect on rural crime," Mr Seccombe said.

"We want to reassure rural communities and also provide the deterrence message that Warwickshire is not a soft touch for rural crimes."

Anyone who wants to obtain "Police – stop" stickers should contact Carol Cotterill, rural crime co-ordinator for North Warwickshire, by emailing carol.cotterill@warwickshire.pnn.police.uk or by calling 07787 151 848.

JOURNAL : Farmers Weekly

British dairy farmers who produce and sell ice cream from the farmgate are being encouraged to sign up for the NFU's nationwide Ice Cream Map.

The interactive map, which already features 60 farms in England and Wales producing real British ice cream, will promote UK dairy farming in time for peak sales this summer.

See also: How one dairy farm set up a processing unit to sell direct

A campaign, "from cow to cone" will run simultaneously with the map, promoting the stories behind real British ice cream producers and the process of how its made.

The UK was the world's second-largest importer of ice cream in value terms in 2016, buying in £235m worth of the product – equal to a quarter of total world imports, second only to Germany which imported £241m, according to research from IndexBox.

In contrast, the UK was only the seventh-largest exporter of ice cream, shipping just £106m in 2016 giving the UK a net deficit on ice cream of almost 230%.

"It's good to be able to highlight how some of our dairy farmers are adding value to milk on farm," said NFU dairy board chairman, Michael Oakes.

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"We first recognised a couple of years ago that many of our dairy farmer members have diversified into producing their own ice cream and it would be a great idea to create a map to show exactly where the public can go to buy real, British, local ice cream."

Mr Oakes said the NFU already has 60 producers on the map and throughout the summer months the British dairy ice cream map will continue to grow as more NFU members are added.

"Real dairy ice cream, made with British milk, has a great taste and a creamy texture. Nothing beats it."

Farms who wish to take part must be NFU members and should ask for a consent form from NFU dairy adviser, Verity Richards at verity.richards@nfu.org.uk

JOURNAL : Farmers Weekly

The NFU will remain a key member of an influential European farm lobby organisation – after the UK leaves the EU.

The Copa-Cogeca group represents farm unions and co-operatives from across Europe – fighting the corner on behalf of growers and livestock producers at the heart of Brussels.

The body has had numerous successes when it comes to influencing EU support for farmers, including the CAP.

See also: How an award-winning arable farm is preparing for Brexit

Copa-Cogeca rules require its members to be from EU countries – but that will no longer be the case for the NFU after Brexit on 29 March 2019.

However, the NFU will remain a Copa-Cogeca member – at least during the Brexit transition period which is due to last until to 31 December 2020.

The Copa-Cogeca praesidium – made up of representatives from its member organisations – voted on the issue of continued NFU membership on 14 June.

Unanimous approval

A spokeswoman said: "Copa and Cogeca unanimously approved that the NFU can be a full member of Copa and Cogeca until the end of the transitional period of the UK membership to the EU."

Earlier, NFU director of policy Andrew Clark told Farmers Weekly it made sense for the union to remain a Copa-Cogeca member "for the foreseeable future".

He said: "The NFU believes that working closely with our European colleagues on EU farm policy – and our shared farming future – is incredibly valuable."

'Vital work'

The NFU's membership of Copa-Cogeca played a vital part in that work, added Mr Clark.

"For the foreseeable future, British farming will continue to follow the rules laid out by the CAP, alongside the thousands of other EU regulations and decisions that affect members on a daily basis.

The NFU would continue to fully represent the British farmers, working with its European allies to secure the best possible outcomes for members, said Mr Clark.

JOURNAL : Farmers Weekly

Defra secretary Michael Gove has pledged to protect British farmers against substandard food imports as he seeks to avoid a "race to the bottom" after the UK leaves the European Union.

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Speaking at the Hay Festival, Mr Gove said UK food standards post-Brexit would be among the highest in the world. Imports of food produced using techniques banned in the UK would be allowed “over my dead body”, he told listeners on Friday (25 May).

See also: Brexit must deliver for farming, Theresa May told

More consumers were prepared to pay for food quality and provenance, said Mr Gove, who appeared keen to pre-empt accusations that “gold-plating” UK standards would leave British farmers unable to compete.

“The future for Britain – not just in this area but in other areas – is being seen to set some of the highest standards in the world. Of course there is the temptation to believe that left to their own devices politicians will conspire to lower standards everywhere.

Highest quality

“But actually, I think that the future British farming is to say we are not going to compete in a race to the bottom. We couldn't win it and we shouldn't try.

“We will succeed on the basis of consumers knowing that our food is of the highest quality and they can trace the journey from farm to fork and they can have absolute confidence that what they are buying is ethical and sustainable as well as being delicious and good value.”

Topics addressed by Mr Gove during an hour-long discussion included antibiotics in livestock production, promoting collaboration between farmers and his intention to base a new system of farm support based largely on environmental measures.

'Over my dead body'

At one point, Mr Gove was asked whether UK standards would ever permit the “wholesale import” of American food, which include chlorine-washed chicken or hormone-produced beef – both methods banned in the UK. He replied: “Over my dead body, as it were.”

Mr Gove was also asked about messages emerging from responses to Defra's Health and Harmony public consultation on the future of farming, which closed last month. A common theme was that the government must recognise the diversity of UK farming, he said.

It was also important to underline that the government recognised farmers would only be able to contribute to environmental enhancement if their businesses were successful – and that meant having food production at their core.

Farm policy must focus on food, warns Batters

NFU president Minette Batters has criticised what she described as the lack of focus on food production in Defra's consultation on the future of farm policy post-Brexit.

Ms Batters was asked about the Health and Harmony consultation during a public discussion at the Hay Festival. “It didn't really mention food at all, and we are farmers, that's what we do – and we care for the environment as well – so I think that was a glaring oversight,” she said.

Much of the consultation document focused on plans to replace direct payments to farmers with a system of support based on rewarding farmers who undertake environmental measures. Ms Batters said Mr Gove had since acknowledged that it should have focused more on food.

The NFU had submitted a 100-page consultation response to emphasise the importance of food production, said Ms Batters. She added: “Apparently, he did design the title himself. I did point out to him that it is a beauty salon in Essex if you Google 'health and harmony'.”

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Most countries across the world supported farmers in order to keep food affordable, said Ms Batters. It was vital to ensure farmers were able to secure a fair return from the market before changing farm support, she suggested.

Radical changes were needed if the government really wanted to introduce a system of public money for public goods because farming was driven by global pricing. "You can't just shut your eyes and say the market can run itself because the market is a savage beast," said Ms Batters.

JOURNAL : Farmers Weekly

One large Norfolk arable farm is seeing the benefits of a switch to using liquid nitrogen in terms of accuracy and flexibility, although it is too early to link the change to a rise in yields.

Problems with using solid fertiliser on windy days and the precision achieved using liquid were factors behind the move in 2014, which has resulted in more even crops.

Based just outside North Elmham, north-west of Norwich, Foxburrow Farm gradually introduced liquid fertiliser over its 1,800ha of land, and applies it using two Horsch sprayers.

See also: Solid v liquid fertiliser: Which is best?

So what were the key factors involved in the switch on the farm, which grows oilseed rape, winter wheat and sugar beet on a range of soils varying from clay loams to sands over chalk?

Decision-making

Farm director Will Goff explains that there were a number of key reasons behind the change from granular to liquid fertiliser as he was keen to utilise the technology available through modern sprayers.

"A normal fertiliser spreader is never going to vary the rate, provide section control, or apply the functions that liquid can do, through a sprayer," he says.

"You've got individual nozzle control, flow rate control, everything under the sun is there, and we felt that if we wanted that level of detail, we needed to convert to liquid," he adds.

John Alston, Foxburrow's farm manager, says that on windy days they had to pick and choose when they could spread solid fertiliser, which was reducing productivity.

He also explains that there were a number of aspects of solids that didn't agree with their farm strategy, such as the use of vital machinery.

"For me, the forklift is the most valuable piece of kit for farmers throughout the whole year. Having that tied up transporting bags of fertiliser to fields isn't practical," he says.

Mr Alston highlights other frustrations with solid nitrogen including the wait for rain to break down and soak in granules, the amount of shed storage taken up by bagged fertiliser, and the need to dispose of bags after use.

Results since changing

Mr Goff says five years' worth of data would be needed to say conclusively that yields have improved as a result of the switch to liquid. However, one visible difference since the change is that crops look far more even across the field.

"With solid fertiliser, there's usually a big difference in appearance between hills and hollows, and you can see the headlands tail off. With a liquid system, you've got uniform green right to the edge," he says.

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Mr Goff notes that it is hard to say whether or not this is thanks to liquid, as they have brought in other changes such as variable rate seeding, but his gut feeling is that they are seeing better crops.

Some yield improvements have been seen in oilseed rape crops, as liquid nitrogen can be applied later than solid fertiliser due to the superior height of sprayers.

Scorch and corrosion

One key drawback of liquid fertiliser can be the risk of scorch, which occurs when applied in hot, dry weather. Scorch from liquid nitrogen can cause spotting and tipping, both of which reduce green leaf area with the potential to affect yields.

Pros

Provides even consistency across fields

Sprayer technology allows application to be far more accurate

An effective way of moving into precision farming

Cons

Risk of scorch on crops

Unable to spray in hot, dry conditions in the warmest parts of the day, so applications are often limited to early morning and evenings.

Potential for corrosion damage to sprayer

Mr Alston, who does all the spraying, highlights that the timing of liquid nitrogen on wheat at the flag leaf stage is critical to avoiding scorch.

"I monitor the weather constantly, working early mornings and late nights, when there's a little bit of dew on the ground, providing ideal conditions," he says.

Another possible disadvantage of liquid is the corrosion it can cause to sprayers, leading to increasing wear on parts such as booms, pumps and electrical connections.

Mr Alston says growers need to do preparation work on their sprayer, to minimise the chances of corrosive damage, adding that the relevant parts of Foxburrow's two sprayers are mostly stainless steel.

Mr Goff adds that if sprayers are given a quick blast with a pressure washer after use, there is a good chance of winning the battle against corrosion.

"If sprayers are not looked after, then liquid has the ability to chew through anything," he says.

Labour/safety

The switch to liquid nitrogen on the farm does not create a reduction in labour, as a second operator is still required for the large 16,000-litre stainless steel bowser, which provides fertiliser and sprayer support.

"While it hasn't necessarily reduced manpower and the need for a tractor, it keeps the forklift on the farm, which was a priority," says Mr Alston.

Top tips for switching to liquid

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Preparation and maintenance of kit is key. Liquid is going to be physically damaging if you don't look after your sprayer.

Work out suitable locations for your tanks, taking into account security risks

Be flexible and have a plan in place with your agronomist

Safety is extremely important and Mr Goff highlights that with solid products, there is always a risk of accidents such as bags slipping off forklift pallet forks and half-tonne bags dangling in the air.

Mr Alston says a major failure of a liquid tank would only happen if somebody drove into it, and explains that they have a concrete barrier in place to mitigate that risk.

The positioning of liquid tanks is key, and he suggests that they are sited as close as possible to the farmyard and away from busy roads, to reduce the risk of tampering or vandalism.

Cost of switching to liquid

Mr Goff believes liquid tends to be slightly cheaper than the granular alternative, explaining that storage tanks are rented from the fertiliser supplier, Frontier.

"Liquid, without a shadow of a doubt, helps us make savings in the amount of fertiliser we use. You don't have the overlaps, especially with sprayer functions such as GPS and auto shut-offs," he says.

"If you're wanting the accuracy and efficiency of liquid application, then it's likely you're going to invest in a high-end sprayer, which we've done," he adds.

Andrew Melton, agronomist at Frontier, says many of its customers enjoy the flexibility of using liquid fertiliser.

"With granular, you're buying it in bulk at the start of the season and filling a shed. However, with liquid, you're only bringing more in, if and when you need it," he says.

JOURNAL : Farmers Weekly

An experienced farmer has died following a quad bike accident on a farm in Northern Ireland.

Father-of-two Hugh Henry suffered fatal injuries in the accident on Saturday afternoon (12 May) in Ringsend, near Garvagh, County Derry.

An air and land ambulance were sent to the scene after an emergency call at about 5pm. But Mr Henry, who dedicated his life to farming, could not be saved and he was pronounced dead at the scene.

See also: 'I lost my leg in a farm accident – a farmer's story'

SDLP East Derry assembly member John Dallat said Mr Henry's death had left the entire community "reeling with shock".

"Hugh was a very experienced farmer committed to agriculture all his life," added Mr Dallat.

"Our deepest sympathy goes to his wife and family, who will need the support of everyone as they come to terms with the outcome of another farm accident.

"While this is not the time to speculate as to what happened, it does underline just how dangerous an occupation farming is, even when best practice isn't enough to prevent accidents involving life and death."

Mr Henry is the fifth farmer to die in a farm-related accident in the past month.

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He is survived by his wife, Margaret, and their children, Hugh and Maria.

JOURNAL : Farmers Weekly

Losses in Northern Ireland's beef sector have rallied farmers to call for a targeted suckler support scheme after Brexit.

The Ulster Farmers Union (UFU) said the market is failing to provide a living for most suckler farms after industry data showed a 61p/kg shortfall between costs and farmgate beef prices.

Average cost of production for the 2016-17 financial year was £3.97/kg deadweight versus an average price of £3.36/kg, although prices have strengthened to about £3.60/kg.

See also: Growing beef market threat from Argentina

The figures come from the Livestock and Meat Commission and the Department of Agriculture, Environment and Rural Affairs (Daera), which UFU beef and lamb chairman Sam Chesney said makes for unattractive reading.

The union will pressure Daera to provide a post-Brexit agriculture policy that acknowledges the wider economic, environmental and social importance of the suckler cow, said Mr Chesney.

He called for a scheme that paid farmers to improve technical efficiency in a grass-based system, for carrying out management activities such as:

Soil sampling and liming/fertilising land accordingly

Buying bulls with better figures

Intensive grassland management

DNA testing a percentage of calves

Weighing stock to monitor growth and efficiency

"We want something simple that gives us money for doing things that will help suckler farms perform better," he told Farmers Weekly.

"I don't think the consumer and taxpayer will hand out the brown envelope anymore. Michael Gove has said we must give value for money.

"I want to work to produce a payment of, say, £50 a calf for farms to show they are providing information on the performance and growth of the calf and its breeding and genetics."

A direct 200/cow subsidy premium is being demanded in the Republic of Ireland (ROI) by key beef industry groups.

An Irish Cattle and Sheep Farmers Association spokesperson told Farmers Weekly this looked doubtful and suckler herd contraction was likely.

Beef v dairy

One of Mr Chesney's core concerns is the attractiveness of dairy farming profits to younger, progressive suckler producers.

He said that while it is understandable that some farmers are considering or switching to dairying, it is the suckler cow that is the shop front for beef in Britain.

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“Beef is marketed on the back of the suckler cow,” he said, underlining the longer finishing times and smaller carcass weights of dairy-bred cattle compared with beef cattle as issues for the supply chain.

“There are 3,500 beef and sheep farmers in Northern Ireland. If half of us milk 100 cows, this is unsustainable, as it’s an extra 1.75bn litres of milk annually.

“I’m too old to switch to milking cows, but beef farmers have the stock skills, the calving experience and can move into it.”

Case study – James Taylor, County Antrim

Beef producer James Taylor, 35, is in the process of converting to a spring-block calving dairy on his holding near Portrush.

Currently calving 100 spring-calving Stabilisers and finishing 800-900 prime cattle a year, Mr Taylor is hoping to treble his profit a cow by switching to dairy.

He told Farmers Weekly that, despite achieving profits of up to £300 a cow, he calculated that an Irish-style dairy system using economic breeding index cows and a mix of Friesian/Jersey cross-breds will make more money.

“In a normal year, I can make more than £200 a cow profit, but dairying should make £900-£1,000 a cow,” said Mr Taylor. “We will stay in the beef industry to a degree, grazing store cattle, but I’m not sure if I will continue finishing them, as the finishing shed is being converted to a cubicle house.

“I like being a suckler farmer and they are a profitable enterprise, but I can’t make them come close to the profits that dairy would.

“There are some suckler herds looking at selling up, but there doesn’t look to be a mass exodus happening. There are numerous examples across Northern and Southern Ireland of arable, sheep and beef farms converting to dairy.”

JOURNAL : Farmers Weekly

Throughout the 2018 show season, we’ll be bringing you regional coverage of the UK’s best-loved agricultural and countryside shows.

These events showcase the best of British farming and food, while also serving as a great social occasion and a opportunity for consumers and the public at large to about learn more about the agriculture industry.

See also: Visit our careers hub for advice and tips on getting into farming

Nottinghamshire County Show

If you've got an agricultural show taking place in your area and think it should be covered by Farmers Weekly, let community editor Oli Hill know by emailing oli.hill@reedbusiness.com

JOURNAL : Farmers Weekly

Farmers looking to apply for a licence to cull ravens on their land must first take steps to deter the birds by using non-lethal methods – such as gas cannons and scarecrows – and then prove that the problems persist.

Last week (18 June), Natural England confirmed it had issued licences to cull ravens on a small number of farms in five English counties – Derbyshire, Lancashire, Berkshire, Wiltshire and Dorset.

Even though the bird is a protected species, numbers have recovered to such an extent in some areas that they are posing a real menace to livestock. Newborn lambs are especially vulnerable, sometimes having their eyes and tongues pecked out by the birds.

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See also: Sheep farmers issued licences to cull ravens in England

Following media attention surrounding the story, the National Sheep Association (NSA) said it had received numerous enquiries and produced a factsheet for members on how to apply for a licence.

"The position is that, in all UK nations, farmers must first encourage ravens away from livestock using non-lethal tactics," said NSA chief executive Phil Stocker.

"Where this is not deemed sufficient to protect animals, a licence can be applied for to kill a limited number of birds to aid scaring and encourage other ravens away from the area."

Deterrents

The NSA factsheet provides a list of non-lethal techniques that can be used to deter ravens (see "Non-lethal techniques to dissuade ravens").

Non-lethal techniques to dissuade ravens

Gas cannons

Pyrotechnic cartridges

Dogs

Scarecrows

Replica or real corpses of the target bird

Flags, rags and streamers

Anti-perching devices

For farmers in England, it explains that Natural England also requires anyone wanting a licence to first keep a log to prove that non-lethal techniques have failed.

"If granted, a licence will only permit a very limited amount of birds to be killed and only as an aid to scaring. The licence will not permit an open cull of the birds," says the NSA advice.

The factsheet also provides links to both a suitable monitoring form (PDF) and the application form (PDF).

Similarly in Scotland, Scottish Natural Heritage (SNH) requires "compelling evidence" that serious damage to livestock is occurring. Application forms are available on the SNH website and the applicant must specify the number of birds that are believed to be causing the issue.

Raven culling is seemingly more widespread in Scotland, where figures recently quoted by the Scottish government confirmed more than 400 licences had been issued in the past three years, permitting the culling of 3,334 birds.

High losses

Mr Stocker said he was pleased to see both Natural England and Scottish Natural Heritage moving to help tackle the problem.

"NSA members who suffer high losses from ravens, particularly at lambing time, share troubling stories of the damage these birds can cause.

"It is important for farmers, who have respected the protection order on these birds, to be able to apply for licences where the situation cannot be controlled in any other way."

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But the NSA also warned that illegal culling could result in up to six months' imprisonment and a £5,000 fine per offence.

NSA members can access further information on the association's website.

RSPB response

The RSPB estimates there are now about 7,400 pairs of ravens in the UK and accepts that, in certain circumstances, it may be necessary for farmers to kill a limited number for livestock protection.

"Ravens are great opportunists with a hugely catholic diet and will indeed, on occasion, kill lambs," says conservation director Martin Harper on the society's website. "The RSPB acknowledges this can be a distressing situation."

However, it questions the lack of transparency in the licence application process.

"How would we, either the RSPB or a member of the public, know what non-lethal measures had been carried out by a farmer and why they failed?" it asks.

"How would we know how many licences for how many birds have been issued? How many ravens will NE allow to be culled in England, now and into the future? None of this information is in the public domain."

JOURNAL : Farmers Weekly

The National Sheep Association (NSA) has called for a wider cull of ravens in Scotland, after Scottish Natural Heritage (SNH) came under fire for sanctioning a limited cull.

The latest licence was granted by SNH to a conservation group in Strathbraan, Perthshire, which requested permission to cull ravens to see if that would help a recovery in curlew, lapwing and oystercatcher numbers.

See also: Farmer uses alpacas to guard sheep flock

The group blamed ravens for predation and was awarded a licence to cull 69 ravens this year, with more to come over the next five years.

But the decision led to a backlash, with SNH chairman Mike Cantlay even receiving death threats following public complaints by BBC Springwatch presenter Chris Packham.

Justification

SNH issued a strong justification for licencing the cull, pointing out that the habitat around Strathbraan "is good for breeding waders, but raven numbers are increasing", adding it was just a trial.

But it has since been revealed the culling of ravens is more widespread than first thought. Following a parliamentary question, the Scottish government confirmed that more than 400 licences for the killing of 3,334 birds have been issued by SNH over the past three years.

This has triggered further condemnation from animal rights groups. Director of OneKind, Harry Huyton, said he was "shocked" to find so many ravens were being routinely killed across Scotland.

"Ravens are supposedly a protected species, recovering from a long history of persecution," he said.

High lamb losses

However, the NSA has offered its support for the culls, and says licences to reduce raven numbers should be more readily available in other parts of the country.

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"With lambing now finished across the UK, the NSA has received reports of very high losses to ravens this year, including flocks in Scotland where 50-100 lambs have been killed," said NSA chief executive Phil Stocker.

"Ravens target lambs in vulnerable moments, even striking the very moment they are born."

NSA Scottish regional chairman John Fyall acknowledged it was an emotive issue for campaigners, "but there is nothing as emotive as seeing a newborn lamb trying to find a teat to feed from its mother with no tongue and no eyes".

Legislation

Legislation allows the culling of ravens under licence "to prevent serious damage to livestock".

But the NSA believes raven numbers are getting out of control and more licences to cull are needed to counter the knock-on effects on other species.

OneKind, however, says other, non-lethal methods of deterring raven predation should be pursued instead.

JOURNAL : Farmers Weekly

The number of farms making a loss in 2017 fell sharply as rising farmgate prices outstripped an increase in the cost of inputs.

Figures released by Defra on Thursday (31 May) show 20% earned nothing after expenditure in 2017, a fall from 26% in 2016 after average farm business incomes rose from £22,000 to £33,000.

A total of 51% of farms still sit in the lower-income bracket – earning less than £20,000 – a fall of 9% from the year before despite the measurement including income from agriculture, agri-environment schemes, diversification and subsidy.

See also: Use profits to prepare for rising costs, dairy farmers told

Meanwhile the proportion of farms earning more than £50,000 rose from 16% in 2016 to 23% in 2017.

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The figures were drawn up under Farm Business Income guidelines, which produces a figure to represent the total available income to cover all unpaid labour and capital invested in a business.

This means it shows what is left over to pay for the cost of living of sole traders, or those in farming partnerships, as well as make tax payments and provide for re-investment in the business.

The modest returns come despite a healthy increase in commodity prices, with the dairy sector in particular enjoying a significant improvement in profitability after milk prices rose sharply.

This increased the total value of milk and milk products by 32% compared with 2016 to £4.34bn.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

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JOURNAL : Farmers Weekly

Both the number of agricultural **co-operatives** and their memberships fell for the fifth consecutive year in 2018, according to an industry report.

The UK has lost farming 25 **co-ops** since 2014, leaving the total at 420, accounting for a total domestic agriculture market share of just 6%, according to the 2018 UK **Co-operative** Economy report, launched today (26 June).

This figure pales in comparison to the UK's European neighbours, with **co-ops** in Spain, France and the Netherlands holding a 45%, 55% and 68% slice of total market share in their respective countries.

Across the same five-year period (2014-2018), the number of farmer-owners has also dropped by 2.6% to 142,999 in 2018, accounting for 61% of all **co-op** members in the UK.

See also: Dairy producer organisations – the principles explained

Despite the injection of £10m by Defra at the start of this year, the report stated that more support was needed to address the trend of declining **co-op** and member numbers.

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"Defra has recognised that the UK is significantly out of step with its international competitors in the use of the **co-operative** business model to support producers and have indicated its support for more collaboration in the sector," said agricultural manager of **Co-operatives** UK, Richard Self.

He added: "They also need to make sure the funds they announce can be accessed easily and support the right initiatives, to help change perceptions and encourage **co-operation**."

Co-op turnovers have seen a resurgence this year, increasing 5% to £7.7bn, but remained 4% behind the highs of 2015.

Agriculture, which accounts for more than 20% of total UK **co-op** turnover, exceeded national **co-op** revenue growth, which increased by 2.3% to £36.1bn.

Brexit issues

The report highlighted the uncertain operating environment that was being overshadowed by the UK's withdrawal from the EU, according to Omsco managing director Richard Hampton.

"The figures from this year's economy report are reflective of the current market conditions and the challenges that lie ahead," he said.

"Collaboration within the agricultural supply chain and across **co-operative** memberships will be key in ensuring sector success post Brexit."

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

For the financial year ending March 2017, exports accounted for 21% of Omsco's turnover.

Mr Hampton explained that there were hurdles to overcome as Brexit draws closer, bringing with it potential barriers to trade.

"Although Omsco's core business is in the UK, added-value initiatives not only help us to balance fluctuations in UK organic milk supply and demand, but also to build resilience as a business," added Mr Hampton.

JOURNAL : Farmers Weekly

With oilseed rape crops taking advantage of the much-needed May sunshine, our four growers taking part in our OSR Masters series are keeping a close eye on crop progress as they start to make plans for next season.

In the second article of this series, yield performance and cost control are vying for our growers' attention as they look for ways to improve their crops' prospects and guarantee success.

Over the next few months, we will be following their progress into the next cropping year to see how their new oilseed rape crops establish.

Sam Paske, Hail Weston Farms, St Neots, Cambridgeshire

Cultivation kit

Having built his own piece of kit last year to establish oilseed rape in just one pass, farm manager Sam Paske intends to refine it for this coming summer.

Getting team member Andy Harris to fit a Techneat Terracast seeder on to the back of a Horsch Tiger cultivator in the workshop has allowed him to replace a previous disc and Sumo system, reducing the time and costs of establishing 135ha of oilseed rape.

Given blackgrass pressure on the farm's heavy clay soils, he opted for a very narrow tine on the cultivator last year, so that OSR could benefit from drainage and root development, while soil disturbance and grassweed germination were limited.

"It worked well in good soil conditions, but we will be modifying it. The plan is to make it a bit more weather-proof, so that it can operate in wetter conditions, if necessary, and give greater seed placement accuracy," he says.

See also: 4 growers on how they get oilseed rape off to the best start

Herbicide costs

Mr Paske has also cut the early costs of growing oilseed rape by using home-saved seed and has set his sights on bringing herbicide costs down as he works with Frontier agronomist Ed Schofield.

"The aim is to trim costs without compromising yield. We are growing conventional varieties so that only a proportion of our seed has to be bought in, and we are using benchmarking to compare our costs with others' and look for ways of reducing them," he adds.

Currently, he has Picto, Elgar and Flamingo in the ground – with the intention to save some of the Elgar and Flamingo for drilling next season, as they were more forward than Picto in the winter.

Slug control

Drilling starts in mid-August, at a seed rate of 5kg/ha along with broadcast slug pellets. Most of the straw is baled ahead of rapeseed drilling, helping to keep slug numbers down, and he plans to roll the crop twice to retain soil moisture.

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With one of his farms bordering Grafham Water, and the other four all in the River Kym catchment, a water-sensitive area, Mr Paske works with Anglian Water when it comes to slug pellet use and relies on ferric phosphate-based pellets when required.

“The Techneat seeder has a split hopper, so it’s a straightforward operation to apply them at drilling,” he says.

Flea beetle is the main establishment issue, with two autumn insecticides being needed in 2017. Applying some more fertiliser at drilling might help the crop to get away faster, so he intends to look at how that can be done.

A total of 250kg/ha of nitrogen is applied to oilseed rape, with 30kg/ha being applied in the autumn as diammonium phosphate (DAP) and the remainder in the spring.

Philip Woods, DH Woods & Son and PR Farming, Kensworth, Bedfordshire

Establishment

Giving oilseed rape the best start takes planning and precision, Bedfordshire grower Philip Woods believes. This means making best use of variable seed and fertiliser rates, matching variety choice to drilling date and establishing crops with low-disturbance tillage.

With 50ha of hybrid oilseed rape on his home farm in Kensworth and a further 230ha of conventional varieties grown on four neighbouring contract farms, Mr Woods switches variety type as drilling progresses and conditions change, altering seed rates according to soil texture zones.

He uses a Mzuri strip-till drill to establish the crop in wide rows, as the one-man, one-pass system has allowed him to slash the crop’s establishment costs by moving less soil, as well as reducing his reliance on agrochemicals.

“At an average of 3.8t/ha, our yields aren’t as good as I would like them to be yet, but there has been progress and our variable costs have come down,” he says.

Drilling starts at the beginning of August, with conventionals going in at a 5kg/ha, helped by DAP fertiliser placed under the seed. Slug pellets go down the same day if thresholds have been reached, so the crop can exploit warm temperatures and get going within two days.

“With oilseed rape, it’s all in the establishment. In good conditions, we find that conventional varieties do very well,” Mr Woods adds.

As August progresses, he switches to hybrids for their autumn vigour advantage and adopts a lower 2.6kg/ha seed rate, putting 4kg/ha of berseem clover over the back of the drill, which costs £2.40/kg.

Companion crops

This companion crop is used to assist rooting, reduce weed germination and provide a distraction for flea beetle – with pigeons being deterred by the lack of landing sites between the rows.

His agronomist, Damian McAuley of Indigro, explains that adding the berseem clover is cheap and doesn’t require any additional management – making it a no-brainer.

“Oilseed rape rooting does seem to benefit from the companion crop. We have also seen some direct feeding damage from flea beetle on it, so it does seem to dilute flea beetle activity,” he says.

Variable seed rates are used by Mr Woods, so that seed numbers are matched to the expected establishment rate of different soil zones.

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"On our colder, heavier north-facing slopes, we get 65% establishment, but down in the valleys it goes up to 95%. We aim to get 30 plants/sq m established in the autumn, so altering seed rates on the move helps us to achieve that and gives a more even establishment," he says.

Pre-emergence herbicides are not required, as broad-leaved weed numbers have fallen since strip tillage was adopted. A single autumn spray of AstroKerb (propyzamide + aminopyralid) takes out both broad-leaved and grass weeds, as well as dealing with the berseem clover.

Whizz Middleton, TC Shaw & Sons, Lilley, Bedfordshire

Varieties

In a bid to raise yields, hybrid varieties account for all the 105ha of OSR grown by Whizz Middleton regardless of the end market.

Operating across four farm sites from the home farm base at Lilley, near Luton, Mrs Middleton and her father Brian opted for the variety PT256 for the fields destined for her cold-pressed rapeseed oil, and Clearfield varieties for the rest.

Having seen yields stagnate, they were hopeful that the better autumn vigour offered by hybrids would help crops to get away faster and overcome establishment challenges.

Herbicide use

Another consideration was herbicide use, with the suspicion that the sulfonylureas formerly used in the rotation were delaying the emergence of OSR.

Working with agronomist Chris Bumford of ProCam, they grew a trial area of Clearfield last year, which performed very well and produced the farm's highest yield. That gave them the confidence to switch to the Clearfield varieties Impressario and Illustrious.

"We'll wait to see how they perform at harvest. It would be good to see some yield progression," says Mrs Middleton.

Drilling

Early threats to the crop are flea beetles, slugs, pigeons and very dry conditions at drilling, so as a result the aim is to get the OSR direct drilled in the first week of August with a Horsch Sprinter drill.

"We will stop the combine for the day to get the oilseed rape in. To avoid soil moisture loss, we don't do a stubble scratch or any soil movement first and we direct drill across the tramlines at a depth of 11-20mm, using the recommended seed rate," she says.

Pest control

The field is then rolled and slug pellets applied. Flea beetle numbers saw an alarming rise in 2014, so post-emergence spraying with pyrethroids has become necessary. Adjuvants have proved helpful, so work with these is ongoing.

A flexible approach to the crop's agronomy is followed. Clearfield varieties wait until the end of September to receive their first herbicide of Cleravo (imazamox + quinmerac), while the PT256 had an early post-emergence metazachlor spray.

Otherwise, both received Centurion Max (clethodim) for blackgrass control, along with an early application of 30kg/ha of liquid nitrogen and Universal Bio. In total, crops will receive 230-240kg/ha of nitrogen and 40-45kg/ha of sulphur.

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The better disease resistance of newer varieties is being exploited, as light leaf spot is becoming more prevalent on the farm.

David Lord, Lord & Hunt, Clacton-on-Sea, Essex

Oilseed rape must be competitive to keep its place on David Lord's farm, so he has not been afraid to make changes to the way it is established and grown.

Low-disturbance system

His ultra-low disturbance establishment system based on CrossSlot technology has reduced costs and maintained yields, with variety choice allowing the business to add value to the crop through specialist end-use premiums.

Direct drilling is now being carried out across most of the land, so cover and companion crops are being used to help with soil structure and nutrient recycling. In addition, crop residues are being chopped and retained to prevent the loss of soil moisture and limit weed germination.

That's quite a departure from the previous min-till system which worked the top 50-100mm of soil, creating the right conditions for blackgrass to germinate. As a result, one third of the 600ha farm is now down to spring crops – with oilseed rape following spring oats.

"Our soils were in good shape before we introduced direct drilling, as they had benefited from FYM over the years. It means crop rooting hasn't been compromised by lack of cultivation, although we are very careful at harvest to minimise trafficking and compaction," he says.

Varieties

This year, he is growing high erucic acid rapeseed (HEAR) variety Palmedor for the first time, to add an extra £35/t to the crop, as well as a small area of Exclaim.

"Try as we might, our average yields are reluctant to get over 4t/ha. We are hoping that the HEAR premium will make up for that – if oilseed rape yields dip below 3.5t/ha, it's not worth growing," he says.

The farm moved to hybrids a few years ago from Clearfield varieties, as once direct drilling was introduced, the lack of soil disturbance reduced weed germination, making the Clearfield concept less relevant.

A companion crop of berseem clover, which goes on with the oilseed rape as it is rolled, has become standard practice and adds just £2.50/ha to growing costs, and helps to deter early pigeon damage.

"It's there to help with soil structure, but it also reduces the need for pest control. We haven't had to use any insecticide for the last two years," he adds.

Drilling

Drilling starts when soil moisture is right, which may be mid-late August or early September, and he says an ideal date is about 20 August. An even spread of chopped straw from the combine is a big help in retaining soil moisture, so he often uses a straw rake as well.

Seed rates are varied on the move according to a soil texture map, with an aim for a minimum of 20 plants/sq m in the spring. Starter fertiliser goes down with the seed, supplying 30kg/ha of nitrogen and some phosphate. Spring fertilisers provides a further 180kg/ha of nitrogen and 60kg/ha of sulphur.

Pre-emergence herbicides are not required, with just one post-emergence application of AstroKerb or Dow Shield (clopyralid) needed to take out any weeds and the clover.

Sponsor's message

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Making good decisions that protect farm businesses from risk is now every bit as important as driving up output or improving efficiency.

Corteva Agriscience's product pipeline has been developed to help farmers be more successful in what they do and Arylex Active in oilseed rape facilitates a revolutionary approach.

It allows growers to see a crop emerge before spending any money on controlling the weeds within it. No more high-risk front loading of crop protection products, an end to spray and pray.

The farmers who will be successful in the future are the ones who can see a new way forward, and we're looking forward to seeing how this project evolves throughout the course of the year.

Farmers Weekly had full editorial control of this report.

JOURNAL : Farmers Weekly

Oilseed rape prices have risen over the past week, helped by rising crude oil prices and reports of oilseed rape crops coming off the field in western France at 2.5-3t/ha.

The same fields yielded 3.3t/ha last year, according to grower co-op United Oilseeds.

The Ukraine harvest has also started early, with yields about 5% down, but across a far larger area than last year, so heading for a larger crop overall.

See also: Health and safety – safety campaign checks 1,000 trailers

Ex-farm spot prices collected by Farmers Weekly on Wednesday (27 June) averaged £285.4/t compared with £281.3/t a week earlier, although there is a large regional spread. New crop prices for harvest ranged from £280/t to £296/t ex-farm.

While prices remain below the £300/t that would trigger more farmer selling, there is little market activity by growers.

"We'd like to think that there is potential for oilseed rape prices to go up, but if soya beans remain relatively cheap, the EU will import US soya beans," said United Oilseeds' trading manager Owen Cligg.

The likelihood of a much earlier harvest than originally thought has prompted a flurry of pre-harvest activity to clear stores and prepare for the new crop, he said.

On the trade front, limited export business has been done.

Escalating trade tensions between the US and China have made oilseeds markets extremely volatile – US futures slumped days ago with China threatening to impose a 25% duty on US soya beans in retaliation for president Donald Trump's trade measures against the Chinese.

JOURNAL : Farmers Weekly

Battery and brushless motor technology has improved so much in recent years that even power-hungry machines such as brushcutters are beginning to go fossil-fuel free.

At a recent press event our ears pricked up when a certain German power tool maker proudly pointed out its professional range of cordless kit could match its best petrol models for performance.

That included items such as pole pruners, leaf blowers and brushcutters, with just chainsaws and disc cutters still to catch up.

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See also: How to patch up farm pickups with second-hand spare parts

As well as their petrol-like oomph, these engineless machines promise the benefit of quiet, low-vibration operation, no more fiddly starting problems and an end to mixing-up gallons of stinky two-stroke.

So, to see if batteries really can compete, we got hold of the best cordless brushcutters from market leaders Stihl and Husqvarna.

To assess their power, battery life and build quality we then put them to work in some dense scrub alongside their petrol counterparts.

For those looking to spend a little less, we also lined up a more domestic spec Oregon machine.

Here's how they got on

Stihl FSA130 cordless brushcutter (Score: 4/5)

Unit price £415 rrp (about £350 online)

Battery price £187 rrp (about £160 online)

Charger price £120 rrp (about £100 online)

See also: How to get a chainsaw's tired two-stroke engine to run

What's it like?

Likes and gripes

Likes

Bags of power

Good ergonomics once strapped in

Light to handle

Gripes

A fiddle to strap into

Short battery life on full power

No option of on-board battery

The FSA130 is the most powerful pro-spec cordless brushcutter Stihl offers and unlike the other models on test, it has the motor at the rear of the machine.

This means there's no option of having the battery stowed on board, so the operator has to wear a belt or harness with a pouch attached.

A lead then transfers the power to the cutter.

It isn't really a problem for the bike handle version we had as you have to wear a harness anyway.

But if you've got the loop-handle machine, it means you can't just pick it up and go.

Power wise it took some beating and we found it almost on par with its 36cc petrol counterpart – the FS131.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

On full speed it smashed through thick undergrowth with ease and even the lowest power setting was still ahead of the Oregon at full tilt.

As for the battery, ours came with the biggest of Stihl's handheld units – the AP300.

On paper this 6Ah block will apparently offer up to 85mins of cutting time, but on full power we managed to mince it in just 23 minutes.

On the second of the three power settings it lasted a similar length of time, but the lowest setting allowed it to run for about 35 minutes.

In all cases, the trimmer maintained full power until the last minute or so where there's a noticeable drop, as if to warn you your time is almost up.

We found the supplied AL500 fast charger would get the battery back up to full power in about 35mins, so two units won't quite cut it if you want to work flat out continuously.

However, for those who do want that sort of performance there are bigger backpack units available.

Specs

Rated voltage 36V

Battery AP300 – 6Ah

Battery location Pouch on harness or backpack

Motor location Rear of machine

Handles Bike or top handle

Throttle Variable-speed with three power settings

Tool weight 4.5kg

Battery weight 1.7kg

Test results

Run time to a charge 23min on full power and mid-power settings, 35min on low power.

Charging time 35min

Perceived cutting ability/power Almost as good as the petrol-powered FS131

Noise 86db

Husqvarna 536LiRX (Score: 4/5)

Unit price £325 rrp (about £270 online)

Battery price £270 rrp (about £230 online)

Charger price £115 rrp (about £95 online)

What's it like?

Likes and gripes

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Likes

Neat design

Long run time

Twin-direction head

Gripes

Not as powerful as Stihl

Flex in handles

Touchpad buttons hard to press in gloves

The Swede's top-spec offering comes in the form of the 536LiRX, which has a sealed brushless motor directly at the cutting head and a slot for the battery at the rear.

This will accept all of Husqvarna's battery units and for those that want ultra-long cutting performance it can also be teamed with a backpack battery.

All you have to do is insert a battery-shaped adapter the backpack can plug into.

It's a neat setup, particularly as the compact motor in the cutting head is no larger than the head on some conventional machines.

Husky says it's fully waterproof too, so there's no need to worry about getting it wet.

Power was impressive and it chopped through everything we poked it at, only stalling when we pushed it into a patch of woody nettles and brambles.

For longer running times there's an eco mode, which gave us about an hour of continuous operation.

It's useful for keeping your string in tact when strimming along fence lines, but is a bit tedious on larger patches.

It couldn't match the Stihl for power, but when we weren't working the two side-by-side we were pretty happy with its performance.

Our machine came with the biggest of Husky's handheld batteries, which is rated to a whopping 9.4Ah. At full power this gave us 42 minutes of continuous cutting and 61 minutes when we worked in eco mode. In both modes there was no drop in power whatsoever – it just cut out.

There's also a handy button for reversing the cutting head.

The QC500 charger supplied got the unit back up to full charge in about 57 minutes, so like the Stihl it wasn't quite up to continuous operation at full power with two batteries.

Specs

Rated voltage 36V

Battery BLi300 – 9.4Ah

Battery location Rear of machine

Motor location Cutting head

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Handles Bike or loop handle

Throttle Variable speed with normal and eco setting

Tool weight 3.8kg

Battery weight 1.8kg

Test results

Run time to a charge 42min on full power and 61min in eco mode

Charging time 57min

Perceived cutting ability/power Strong, but not as powerful as the Stihl FSA130

Noise 81db

Oregon ST275 string trimmer (Score: 3/5)

Unit price About £120 online

Battery price About £160 online

Charger price About £45 online

What's it like?

Likes and gripes

Likes

Neat all-in-one design

Very simple to set up and use

Long run time

Gripes

Too front heavy

More of a domestic-spec machine

No option of bike handles

Oregon's ST275 is a more domestic-spec machine than the Stihl and Husky, but it shows the sort of performance you can expect when you spend just over half the price.

Like the Husky, it has the battery at the rear of the machine and the motor is housed in the cutter head. However, this is a much bulkier unit and it makes the machine a little head heavy.

It's unfair to compare the Oregon's performance directly with the Stihl and Husky machines, but as a guide its power seems to be about that of the other two on their lowest power settings. We still cut plenty of tough stuff with it, though, and it's handy for lighter jobs.

As the power is lower, the 6Ah battery (the biggest of three offered by the firm) lasted for about 43 minutes of medium grade work and 34 minutes when we really thrashed it.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Unfortunately, the power did tail off towards the end of the charge, particularly when we weren't working it as hard.

The fast charger we were supplied with got the battery back to full power in about 90 minutes.

Specs

Rated voltage 36V

Battery 36V 6.0Ah lithium ion (biggest of three options)

Battery location Rear of machine

Motor location In the cutter head

Handles Loop handle only

Throttle Variable-speed

Tool weight 4.3kg including 4Ah battery

Test results

Run time to a charge 43min in medium grade work and 34min in heavier going

Charging time 90min

Perceived cutting ability/power Roughly the same as the Stihl and Husqvarna on their lowest power settings

Noise 84.6db

The petrol benchmarks

Stihl FS131 – £756 rrp (about £530 online)

Husqvarna 525RTX – £430 rrp (about £320 online)

Our two petrol benchmark machines were Stihl's FS131 and Husqvarna's 525RTX, both of which were picked out by the makers as a fitting match for their best cordless machines.

The Stihl's 36cc engine makes it the second largest machine in its professional line-up, while the 25cc in the Husky, makes it one of the smaller pro-spec models.

Both were good performers, but the noise and vibration was particularly unpleasant after we'd spent some time using the cordless models.

Power wise, we reckon they've still got a slight edge over the cordless machines, but there wasn't much in it. As for running times, the Stihl worked considerably longer run than its cordless cousin, managing 50 minutes to a tank of fuel, while the Husky was similar at 41 minutes.

Verdict – can batteries cut it?

In power terms, these cordless machines are now seriously close to the best petrol has to offer and they come with the added bonus of relatively quiet and fume-free operation.

For out-and-out power, the Stihl is the one to go for, but the Husky is more convenient, particularly if you want a grab-and-go loop-handle model. The Oregon is also worth a punt if you haven't got too much to do.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

If not hammering them hard, all of the machines we tested can just manage continuous operation with two batteries – one in the machine and one on charge. This does assume you have access to a mains power point or vehicle with an inverter in which you can juice up the second battery, though.

As for price, the machine and one battery will come in around the same as a petrol equivalent, but opting for a second battery will push that up by another £200 or so.

However, once purchased, these will cost a fraction of the price of a two-stroke machine to run and remove the inconvenient task of running to the pumps and mixing the fuel.

In the same vein as the cordless drill market, these batteries can be used in the makers' other kit, such as hedgetrimmers or leaf blowers, which are handy for cleaning down combines and balers.

As for their life expectancy, Stihl units are rated to last for 1,200 full charging cycles and Husky says its can do 1,500, depending on how well they're looked after. If you do an average of 10 charging cycles per month, that works out at a life expectancy of 10 and 12-and-a-half years respectively.

For those that do want longer run times to a charge, both Stihl and Husky offer larger backpack battery units. However, they'll set you back a good bit more than £500.

Watch out for specs

If you're considering buying one of these machines it's important to check the specs of the batteries you're buying. We had the top-**end** units and all manufacturers featured offer smaller versions, which will have considerably shorter run times.

It's a similar story with chargers, and lesser versions will take longer to juice the batteries back up.

JOURNAL : Farmers Weekly

Adding ballast to a cultivation tractor is a time-honoured method of delivering maximum grip and making the most of the ponies it has to offer.

Traditionally this has come in the form of front-**end** weights, tyre ballasting or wheel weights. But the setback with all these options is that they're fairly time-consuming to add and remove – a front linkage-mounted block is the only one on the list that's vaguely convenient.

As a result, extra weight is often carried around when it's not needed, which has a serious effect on tyre wear, fuel economy and ride comfort.

But in a bid to make the ballasting process easier, John Deere has teamed up with French implement maker LaForge to build the EZ Ballast system, which is now an option on 7R-series tractors built after 2011.

See also: How to fit a fertiliser kit to a John Deere drill

How does it work?

The system consists of a 370kg frame with hydraulic hook arm mounted on the tractor and the 1.7t weight itself.

To connect it, the operator starts by driving the tractor over the centre of the weight. Once the block is between the wheels, they lower the hydraulic hook arm and continue forward slowly until the hook slots into it. The block is then raised into the belly of the tractor, before hydraulic locks secure it in place.

With a little practice, the whole process can be completed in less than a minute, with removal involving a simple reverse of the procedure. Adding the system reduces ground clearance by about 2.5cm, although tyre pressures can alter this figure.

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Clearly this convenience comes at a price, with the frame and weight combo costing 11,500 (£10,275), plus assembly. That's roughly £6,275 for the frame and £4,000 for the weight. To make it more affordable for those running several 7Rs, Deere says each tractor can be equipped with the frame and the weight can be switched between them.

As a comparison, Deere's price list quotes two 900kg wheel weights, including the two adapter plates (weighing an additional 70kg a piece), at 6,068 (£5,421).

The test

To find out if EZ Ballast is worth the extra outlay, our friends at German magazine Top Agrar put it to the test.

They took a John Deere 7310R and a 4.6m Kockerling Vector cultivator into a dry clay field and tried out eight different options, from no ballast at all to a full 5.3t loading of wheel weights, front-end weighs and the EZ Ballast system.

To measure the pulling power of each setup, the Vector cultivator was fitted with hydraulic pressure cylinders in the drawbar. Meanwhile, a GPS system was on hand to accurately measure tractor speed and wheel slip.

The 7310R was driven as close as possible to its power limit at all times, with the cultivator being pushed down to depths of up to 17cm.

Below we run through the results from each of the ballasting combinations tested:

Unballasted

The tractor on its own weighed 11,770kg. However, this included the basic supports for the wheel weights (140kg) and the 370kg mounting frame for the EZ Ballast system.

With this setup, the tractor's weight distribution was split 42% to the front and 58% at the rear. Pull forces on the cultivator were the lowest and wheel slip was the highest of all the setups tested.

Front weight only

John Deere supplied its large 1.8t front weight and adding this increased the front axle load by 2.8t to 7.7t.

Consequently, rear weight distribution dropped from 58% to 43%, which improved traction and dropped wheel slip by 5%.

However, due to the bigger-than-normal front weight, the permissible front axle load was exceeded by 1.2t, which is less than ideal.

Wheel weights only

Adding wheel weights increased the total weight by 1.8t over the standard tractor.

This shifted the weight distribution to 37% at the front and 63% on the rear, and due to the load bearing point, they had no influence on the front axle load.

Of all the ballasting options they had the lowest effect on traction, partly due to the already high rear axle load of the tractor

EZ Ballast only

With EZ Ballast, the weight increased to almost the same level as the wheel weights, but the central load point meant it had the same weight distribution as a tractor without any weights.

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At slower speeds the tractor with EZ Ballast offered 2% less wheel slip than the wheel weights, but as the speed increased, the two variants were more evenly matched.

Front and wheel weights

The tractor weight increased to 15.4t, with an almost 50/50 distribution. Performance was equal to the front weight-only option, with wheel slip only dropping by 1%. However, the wheel weights had no lifting effect, so the front axle was still overloaded.

Front weight and EZ Ballast

The front axle load increased further and peaked at 8.5t due to the central attachment point of the EZ Ballast.

We reckon that with this setup, the front weight can be at least 1t lighter or dropped off completely during faster pulling work to protect the front axle and improve the ride. We found this combination was a better option than the wheel weight and front weight pairing.

EZ Ballast and wheel weight

This setup would rarely be used as there is no weight on the front axle to offer any grip. For this reason, wheel slip increased slightly.

EZ Ballast, front and wheel weights

The maximum ballast of 5.3t will be very uncommon. Although the slip dropped to the lowest value, it's difficult to justify this as a viable option for ballasting a tractor.

Verdict

The EZ Ballast can definitely replace the time-consuming wheel weight option as it offers similar traction (and a little more in places) and only takes a minute to hook on and drop off.

Although the front weight-only option performed well in traction terms, it considerably overloaded the front axle. Therefore, using a smaller version in combination with EZ Ballast would probably be the ideal, albeit expensive, setup.

After the traction tests, we cultivated more land with the EZ Ballast and front weight combination versus wheel weights and front ballast.

EZ Ballast came in slightly ahead, only having 8.6% wheel slip, drinking 15.8 litres/ha of fuel, and covering 3.3ha/hour. Meanwhile, the wheel weight option slipped a bit more at 9.3% and guzzled 16.7 litres/ha of diesel. It was similar in terms of area covered at 3.2ha/hour.

That said, we think the system could be more useful for the 6R-series tractors, which would undoubtedly benefit from a bit of extra belly weight to help get the power down.

In a nutshell

The EZ Ballast takes less than a minute to hook on and drop off from the cab

It costs £4,854 more than wheel weights, but the extra capital cost might pay off in the long term due to reduced diesel use, wear and set-up times

In terms of getting the power down and saving fuel, there is little difference between classic ballasting and the EZ Ballast system

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EZ Ballast is only available for 7R-series tractors, but we can see it would have benefits for the 6R-series in the future

JOURNAL : Farmers Weekly

With more than a year under its belt, online input price quote and supply service Yagro has a growing band of farmer users looking to save time and money.

Launched late in 2016, the platform promised confidentiality and rapid input price quotes and has signed up 700 farmers.

As its database on prices grows, the business is refining information for users. For example, it has identified the optimum lead time for the best fuel quote is about 3.4 days before delivery is needed.

Users tend to be large farmers in the east and south of England, although the service is national and there is no minimum order or transaction size requirement.

See also: Farm succession - 'fair' and 'equal' are not necessarily the same thing

The first four months of 2018 has seen transactions conducted through Yagro at four times the level of the same period last year.

<https://infogram.com/online-input-price-and-ordering-service-grows-in-numbers-1h7v4pmo1kd84k0>

Many national and regional suppliers have signed up to the platform, which connects farm businesses confidentially with suppliers, enabling them to request rapid quotes and order online.

However, spring 2017 saw national agrochemical distributors which had signed up to the service pull out.

In response, Yagro recruited more regional merchants and suppliers and developed a new tool called Ag Chem Price Check.

Through this it analyses and benchmarks farm invoices against a database of verified prices, with a base of more than 10,000 price points.

This requires farmers to submit agrochemical invoices and, once this is done, the user can access market information for that product, including the range of prices other farmers are paying and alternative products with the same active ingredients and concentrations and their price ranges.

Users see only the range of prices paid, with no individual prices or details about participating farms.

"We've seen rebate opportunities for farmers of up to £44/ha on like-for-like products, and £67/ha savings for a farm switching to alternative brand chemistry," says chief executive officer Gareth Davies.

Agrochemicals, fuel, lubricants, seeds and fertiliser are the most commonly priced and ordered inputs through the service, for which a mobile app has been developed.

Wearing metal machinery parts were introduced in summer 2017.

"Price spreads in commodities such as fuel and fertiliser are often 10% for the same product on the same terms," says Mr Davies.

"The cheapest option is not always the same, as it depends on your suppliers' capacity and cost position.

"In agrochemicals we've uncovered some stark variations, with farms in some cases paying 55% more than others on the same product on comparable other terms.

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"This has no correlation to farm size or relationship to suppliers, it's just a case-by-case basis reflecting how good a negotiator you are."

<https://infogram.com/yagro-facts-1hnq41x7dw8p23z>

What do farmers think?

Pixie Flather is a director of Norfolk family farming company CJC Lee (Saxthorpe), which runs contracting, haulage and green composting interests alongside its 1,214ha arable operation.

The business orders more than 1m litres of white and red diesel a year and Pixie began using Yagro for fuel price quotes in December last year. "I know I saved more than £500 on fuel this week," she says.

"It's very user-friendly and it's the time-saving element that makes a big difference," says Mrs Flather.

"The mobile app works very well – any time a farmer can spend out of the office is a priority and this way you can put in an order on the go."

CJC Lee is now considering using Yagro for agrochemical sourcing and installing telematics equipment to help manage its fuel supply. This would see a meter in the fuel tanks automatically issue a reminder to order fuel when the tank level reaches a certain point. This can also be set up to automatically request price quotes through Yagro.

Fuel is also the main input which Tim Merry orders through Yagro for JV Farming in Dorset. He is operations director of the joint venture farming business on 1,800ha, growing combinable crops including maize for an AD plant.

"It's very simple, convenient and obvious, it's a wonder it hasn't been done before," says Mr Merry who finds he does not necessarily deal with the same suppliers as he did before using Yagro.

"It's been an education and I've been pleased to see that smaller local suppliers can give the larger and sometimes more disorganised companies a run for their money."

JOURNAL : Farmers Weekly

More than 270,000 people flocked to see what makes British agriculture world-class, in what was a spectacular coming together of farmers and the public at large for Open Farm Sunday (OFS).

As many parts of the British Isles basked in sublime sunshine, more than 350 farms welcomed visitors with a range of informative tours, exciting activities and scrumptious produce to taste and take home.

Now in its 13th year, the day saw all types of producers get involved, from large arable estates in East Anglia to mixed units in deepest Wales, as well as city farm parks, hop gardens and vineyards nationwide.

See also: Open Farm Sunday – why you should get involved

The nation-wide celebration of agriculture provides farmers with the ideal opportunity to show the public what makes British farming world-class and helps improve consumers' understand of where their food comes from and how it is produced.

Run by Linking Environment and Farming (Leaf), this is of the biggest events in the farming calendar and is the industry's annual open day.

Leaf chief executive Caroline Drummond said: "OFS continues to go from strength to strength and yet again we have seen how by working together, the industry can really make a vital difference enabling the public to engage with farming."

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While numbers were are still being finalised, it's thought OFS enjoyed a similar level of attendance and number of host farms compared with the past two years.

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Here we share a selection of photos from farm open days across the the UK.

JOURNAL : Farmers Weekly

A few months ago, I wrote an article detailing my thoughts on the importance of one's degree when seeking employment.

In the months following the article, numerous people have asked me: what are employers actually looking for?

Unfortunately there is no set answer to this question, but there are a few constants that will impress any employer, whatever the role.

See also: Read more of Josh Dowbiggin's columns

Be a grafter

In many ways, hard work and determination are the top traits that employers will be looking for. If you can show that you will always go above and beyond the norm in the workplace, you are sure to impress.

Being a grafter isn't just about long hours or physical work. It is crucial that you have the right approach to work and show a willingness to learn.

No one can be perfect at everything, but showing an interest and being keen to expand your knowledge and skills set is a big win for you and your employer. Anything can be taught, but only to someone who wants to learn.

You might argue that it is hard to demonstrate these skills in an interview situation, but if your CV and references are full of examples to show that a bit of hard graft is in your nature, that won't be missed by the employer.

Stand out from the crowd

It is also really important that any application you present doesn't just get lost in the paper pile. When employers or recruiters are reading through CVs, they haven't got all day, so it helps if your application stands out, and quickly.

Make sure your CV is bright and bold. If you can get their attention quickly, they will read into the detail. If you don't, they might just fling it back on the pile.

The next step in standing out from the crowd is in the content of your application. As harsh as it may sound, being chairman of your local YFC club might not always be enough.

Make sure you are seen to be seeking every opportunity to experience different things outside your comfort zone.

This could be travel, building your own small business or starting a new initiative in your local community.

Show that you are comfortable in positions of leadership or responsibility. If they detect a "don't ask, don't get" attitude, it'll be hard not to be impressed.

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Communicate the right way

For some employers, being a good communicator is essential, and they will be assessing your qualities in this area from the get go.

Someone who is confident no matter who they are speaking to, approachable to all and knows how to listen is appreciated in any business.

At the same time, there is a fine line between confidence and arrogance – a line I have previously been accused of crossing. This can be a hard one to get right, but I find the key is knowing your audience.

Don't be afraid to be open and honest with people, but also appreciate the views of others in the workplace. It is important that you recognise who you are speaking to, especially with superiors, so make sure you have your say while also giving time for others to have theirs.

If you can nail these three opportunities to shine through in your application and interview, you will already be one step ahead of the pack.

JOURNAL : Farmers Weekly

Fifty years ago the high street was connected to the shopper. Small, mainly family-owned concerns traded their specialities. Britain was a nation of shopkeepers, so the saying goes – and the supply chain seemed short.

I remember tagging along with my mother to the shops. "Delicious fresh strawberries just in from Kent", the grocer would ball. Provenance, seasonality and quality summed up in a short sentence.

See also: All the reports from Cereals 2018

By the time the butcher, Mr Simons, had chopped, cut, trimmed and wrapped your meat, you knew a bit about the farmer, the meat, the quality, the price and the gossip. Connectivity.

In the half century that has followed, corner shops have grown into supermarkets and the supply chains have lengthened. Conversations have been lost, in the interest of convenience.

Without conversations over the counter at the point of purchase, the shopper becomes disconnected, not just from the farmer, but from the produce. Appreciation, knowledge, value and the community all became casualties.

But attitudes are changing. There is most definitely a growing interest in being more connected with the farmer.

Earlier this month Britain celebrated Open Farm Sunday (OFS). Orchestrated brilliantly by Leaf (Linking Environment and Farming), this fanfare of farming is hosted by British farmers for the British public.

Since OFS began in 2006, more than 2.2 million people have been to a farm on this special day.

It's not just the positive, face-to-face interaction that is on the up. In the media – print, social and broadcast – the hits, swipes and air time are all increasing too.

I attended a number of events on OFS, from the micro to the massive; from a smallholding in Hertfordshire to a huge gathering at Edd and Paula Banks' Manor Farm at Harlton in Cambridgeshire.

The energy was palpable at each event. Moreover, there was an atmosphere of appreciation, enjoyment and community, which danced over all of them.

However, a week later at Cereals, the UK's marquee arable event, things were very different. The farmers were conspicuous by their absence. Too many conversations were dour and optimism scarce.

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One can't but feel parallels with the supermarket metaphor. The supply chain is too long. The retailer – or in this case the events management company – is putting too much of a squeeze on the suppliers (the exhibitors), while the consumer (the farmer) feels disconnected as the experience wanes.

History tells us this will not end well. Such is the cycle of marquee farm events. Pitch prices increase, large players withdraw, farmers don't turn up as there is less to see.

And yet, not far down the A505 at Lannock Manor Farm in Weston, an inspirational and independent farm show and conference is having a polar opposite experience.

Groundswell, the brainchild of the Cherry family, is a fresh and innovative event that is finding numbers and interest booming.

With the strapline 'by farmers, for farmers', Groundswell focuses on emerging methods of soil regeneration, reducing inputs and increasing profitability in arable and mixed farming situations.

A short supply chain, with farmers sharing knowledge and happy to pay for it.

It is apparent that, with the right conduit and connectivity, farming is very much in vogue.

JOURNAL : Farmers Weekly

Aside from the weather and a royal wedding, Brexit remains high on the agenda of conversation in the UK.

This remains the same within the agricultural community, with pretty much everyone (rightly or wrongly) having an opinion on how the next few years will play out.

The sheep sector seems to be receiving the bulk of the somewhat pessimistic predictions, and rightly so, you could argue, with a third of lamb meat produced in this country being exported – the vast majority of which goes to the continent.

See also: Read more of Josh Dowbiggin's columns

I wonder, is a blanket assessment for the future of the sheep sector a fair and balanced analysis of what is to come?

After all, we know that margins vary greatly across the sector, meaning some producers are far better prepared than others for the possibility that the Brexit process will negatively impact the domestic lamb price.

The old "that's how Dad used to do it" mantra that some farmers still adopt will probably not be the right way to maintain a sustainable sheep farming business going forward.

Producers need to be able to understand that every penny spent has a purposeful and intended impact on the business if they want to survive the next decade.

According to AHDB, labour costs for bottom-third producers are more than double those of top-third producers, and purchased feed costs for bottom-third producers are almost four times those of top-third producers.

New approaches

This difference across the industry cannot be underestimated. There are several new approaches that some sheep producers have adopted to reduce the cost of production.

The uptake of low-input New Zealand-style systems has been huge, with many producers removing purchased feed costs, lambing outdoors and significantly reducing the cost of labour and veterinary inputs, all while maintaining lamb output.

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Aside from cost reduction, the big output restraint for many producers is land, so maximising grass production allows for increased stocking density, improving enterprise output without the need for capital investment. This is an easy win for producers.

At the same time as reducing cost and maximising productivity, producers should make sure that the lambs they produce are what the market wants.

Hitting the specification every time is a sure-fire way to keep margins as wide as possible. However, E-grade lambs aren't always profitable lambs.

Cost-saving fallacy

The belief that reducing costs will only reduce output is, in my opinion, a fallacy, and this is proven by the difference in margins across the sector.

Yes, low-cost systems may not achieve the top price for your lambs at the mart, but that's irrelevant if it has cost you a small fortune to get those high-sellers.

Whatever happens to the lamb price over the next decade, the sheep industry has the tools and options to cope.

Below-average producers will most likely struggle, but there is still time for these producers to make changes to their businesses, in turn becoming fit for the future.

In my opinion, the producers that know where their costs lie and are producing what the buyers want aren't just fit for the future, they could be sitting on a goldmine. And as for the predictions, plenty of those haven't come true in recent times – just ask Hilary Clinton.

Somebody once told me that an expert is just someone who made three correct guesses consecutively, so for the time being, I'll be keeping my sheep.

Lancashire lad Josh Dowbiggin, 21, is in his final year of studying agriculture at Harper Adams University. He runs a small flock of Easy Care ewes alongside his Ghyll Beck Hereford Stud business, importing and marketing Hereford semen and embryos from around the world.

JOURNAL : Farmers Weekly

Livestock farmers should invest in good aftermath nutrition after the first cut to ensure they maximise yields and quality from second-cut silage.

Cheshire-based independent grassland adviser George Fisher, of George Fisher Consulting, says if there was ever a year to focus on second-cut silage more than first, 2018 is it.

Farmers who have been fortunate enough to take first-cut silage are reporting lighter cuts of grass silage this season in the wake of the late spring, which has affected grass growth across the UK.

For those who haven't been able to take first cut yet, Dr Fisher advises getting on to fields as soon as ground conditions permit.

See also: First-cut silage runs high risk of slurry contamination

First-cut tips

Don't delay cutting: make up bulk with more cuts

Apply after-cut fertiliser as soon as possible after cutting

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Use a granular compound rather than a blend for better uptake and more landing sites. Granular compounds have all nutrients contained in each granule.

Don't skimp on potash if you want high-energy silage

Use sulphur to boost protein, yield and nitrogen use

Delaying cutting date and subsequent post-cut fertiliser applications after a cold spring will limit silage quality and yield. At this time of year, Dr Fisher adds, the maturing of grass loses 0.5-1 D value/day, so a 72 D value today could be 71 tomorrow or the day after.

"It will be far better to take a first-cut close to the same time as usual and then invest in a full aftercut nutrition programme to ensure second-cut delivers the right yields with optimum protein and sugar content," he says.

"Ensuring you manage grass properly now is essential to ensure adequate forage supplies for the coming winter."

Aftercut nutrition advice

While farmers might be tempted to save money by relying on manure and slurry for grassland nutrition, James Holloway of CF Fertilisers warns that this approach could leave farms "woefully short" of feed.

Dr Fisher adds that growers supplementing organic manures with straight nitrogen may find they are short of potash and sulphur.

He says that on farms that have applied as much slurry as possible earlier in the year, available nitrogen will have been lost by now.

What to apply

Dr Fisher recommends soil testing so farms know what fertiliser is required, before following with a slurry application. He says an N:K:S fertiliser should set up second cuts well.

Even a 30m³/ha (2,600 gallon/acre) application of a 4% DM slurry will be well short of RB209 recommendations for nitrogen, providing only 19kg/ha of the 100kg/ha recommended for a 5t DM/ha grass crop.

Nitrogen (N), potash (source of phosphate) and sulphur (S) will therefore be required, explains Dr Fisher. "Work from your soil analysis and take into account all the nutrients from manures."

Typical second-cut applications for optimum growth are:

80-100kg of N/ha

25-40kg of S/ha

60-90kg of potash/ha

What nutrients does slurry provide?

Nutrient

Typical requirements (kg/ha)

Nutrition of slurry 30cu m/ha (2,600gal/acre)

% provided by slurry

Nitrogen

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100

19

19%

Phosphate

34

14

41.17%

Potash

120

57

47.5%

Sulphur

40

2

5%

*Requirements for second cut on a soil p and K index of 2

When to apply

After-cut nutrition programmes are best applied as soon as possible. Once first-cut is harvested, freshweight production drops about by 370kg/ha for every day's delay in nitrogen application, Mr Holloway explains.

"Research has shown delaying aftercut fertiliser for a two-week period will lead to a potential 20-25% yield loss, which can be 1t/ha DM," he says.

He adds farmers should be prepared to spread slurry more thinly rather than be caught out by having to leave cutting until six weeks after the last application.

"If you focus on getting high quality from your first cut you can then use subsequent cuts to build silage stocks," he explains. "Focus on quality. If you need more bulk, take more cuts."

Why to supplement with phosphate (P), potash (K) and sulphur (S)

Phosphate

P is vital for energy capture by plants through photosynthesis.

Test soil and strive to maintain a soil P index of 2.

Potash

A three-year trial adding 320kg/ha potash to soil with a K index of 1 lifted average silage ME from 10.9 to 11.5MJ ME/kg DM.

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Sulphur

Trials are showing the benefits of sulphur applications in maximising crude protein and facilitating better nitrogen use.

Sulphur plays a vital role in amino acid production (methionine and cystine).

One trial restored optimum sulphur levels to lift protein by 7% and yields by nearly 2t/ha.

A sulphur containing granular compounds such as 25-0-13-7SO₃ or 25-0-6-6SO₃ should be considered, particularly this year.

Compaction caution

With high water tables, independent grassland adviser George Fisher, of George Fisher Consulting acknowledges many producers will have to consider compaction this silage season.

If possible keep off wet fields especially 48 hours after heavy rainfall

Reduce machine size and total axle loads, as loads greater than 3.5t can cause serious and permanent compaction

The greater the weight of the vehicle and the greater the tyre pressure, the deeper the potential compaction

Reduce the pressure on the ground with larger tyres and lower inflation pressures to spread the weight over a larger area

Consider established wheelings or reduced traffic systems

Avoid overusing entrances; use a separate exit if possible

JOURNAL : Farmers Weekly

The amount of land in organic farming production has increased for the first time in more than six years, government figures show.

The statistics issued by Defra reveal the UK's organic land area rose by almost 2% in 2017 to 517,400ha.

That figure includes 32,600ha of land that is in conversion from conventional production.

It is in this category where the overall area increase has been driven. Between 2016 and 2017 the conversion area increased by 29.4% or 7,400ha to a total of 32,600ha.

See also: UK organic food sales hit record levels

Overall the figures show the organic sector is dominated by livestock and mixed farms, with almost two-thirds (64%) of the area classified as grassland.

UK organic farming

Land area - 517,000ha farmed organically

Land use - livestock accounts for 64% of organic land

Livestock - 2.7% of the UK's total is produced organically

Crops - just 7% of organic area is used for cereals

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Organic sheep production increased by 5.5% to 887,000 head, while the UK's organic pig herd jumped by 86.9% from 31,000 to almost 59,000 head in 12 months to the end of 2017.

However, cattle numbers dropped by 7.4%, down from close to 295,000 to 275,000 head over the same period.

The proportion of land under organic cereal production also fell. Defra's figures showed 7% of UK organic land was used to grow cereals in 2017, a decline of 2.6% to 37,400ha.

But this figure is expected to return to its pre-2016 level over the next 12 months, with 2,000ha currently under conversion from conventionally farmed systems.

More arable needed

Organic farming bodies welcomed the overall picture – especially the increase in land under conversion.

But they called for more arable farmers to join the sector and help meet growing demand.

Organic Farmers and Growers (OF&G) chief executive Roger Kerr said: "More shoppers than ever are looking to buy organic food, and with figures showing a 29.4% increase in UK land currently under organic conversion, it suggests more land will become fully organic in the coming years, which is hugely positive for the sector."

Although the in-conversion cereal area figures indicate a recovery to 2016 organic production levels, Mr Kerr urged more growers to join the sector.

Demand for organic arable products outstripped supply and more growers were needed to boost home-grown production and substitute imports, he said.

"By importing organic cereals we are effectively exporting biological diversity and not providing British organic brands with enough home-grown organic crops.

"This and other details where the market is not sufficiently supporting UK organic food production can be helped by further government support to help develop this vital part of the UK farming landscape," Mr Kerr said.

Feed shortage

Organic trade body the Soil Association also urged a bigger take-up in the arable sector.

The organisation said it was concerned about a shortage of production in the arable sector - in particular for animal feed.

"As the UK organic food market continues to grow – with meat, fish and poultry sales up 4.1% in 2017 – so too does the demand for organic animal feed," a Soil Association statement said.

"Our recent Organic Arable report, released last month, reveals that demand for UK-grown organic feed currently significantly outstrips supply, presenting large opportunities for arable farmers considering organic conversion."

The organisation's chief executive, Martin Sawyer, added that while the sector had demonstrated market growth, more support was needed to help British farmers meet demand.

JOURNAL : Farmers Weekly

Oilseed rape growers could suffer substantial losses after a study revealed an important source of genetic resistance against phoma stem canker is becoming less effective.

Researchers from the University of Hertfordshire have declared that host resistant gene Rlm7 has become less successful in controlling the stem canker pathogen, *Leptosphaeria maculans*.

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Phoma, the second most common disease to affect oilseed rape crops after light leaf spot, can causes losses of more than £95m/year to UK farmers.

See also: 6 varieties added to sugar beet Recommended List

Growers rely on varieties that have good resistance against the pathogen causing phoma, after some effective fungicides for treating the disease have been withdrawn.

The disease is caused by two closely related fungal pathogens, *Leptosphaeria maculans* and *Leptosphaeria biglobosa*, with Rlm7 the most dominant gene which is used to give oilseed rape varieties resistance.

Georgia Mitrousia, lead author of the study, which was published in Plant Pathology, believes it is important growers take note of this latest development.

"This study acts as a warning to the oilseed rape industry and they will hopefully develop strategies to prevent the loss of commercially available cultivars," Dr Mitrousia said.

JOURNAL : Farmers Weekly

Grassland values in England are continuing to climb in a trend that has lasted for nearly a decade.

Analysis from Strutt & Parker's Farmland Database shows the average price paid in 2017 was £7,500/acre but sales in the first quarter of 2018 – albeit from a small number of transactions – are close to £8,500/acre.

If the strong performance continues, it will be the ninth consecutive year in which average grassland values have risen.

See also: The land market in your area: West Midlands

Headline figures mask some regional variation – more sales at higher price bands are being seen in the South East, West Midlands and South West. Further north this has not been the case.

And a vast range of prices are being paid: anything from £4,000/acre to £10,500/acre in 2017.

Strutt & Parker's head of farm agency in the Midlands, Matt Sudlow, said supply, scale and location were important factors.

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"We have not seen any dramatic spikes or troughs in values for a long time but scarcity of supply at the sub-200-acre level is gradually pushing prices up," he said.

"Interest from farmer buyers tends to be mainly in units with good buildings and a modest house.

"The price point where farmers are most active seems to be £2m to £3m for grassland farms."

He used two recent examples – 143-acre Lower Pointer Farm at Brill in Buckinghamshire and 107-acre Parsons Barn Farm in Long Compton, Warwickshire.

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"Both are recently launched but have already attracted good numbers of viewings from genuine farmers and we anticipate offers in the next week or so."

A changing market

Mike Taylor, senior partner at West Midlands-based Barbers Rural, said there were features of the market that had changed in the past few years.

"Supply has slowed because we're finding that people are leasing their land so they can continue to claim entitlements rather than selling up, even if they have retired," he said.

"The general volume of transactions has diminished. That's true of both pasture and arable sales."

He added that money from the sale of land to property developers was also influencing the market and that scale was a factor.

"The first thing farmers do is look to buy more land, because that's what they know and there are obvious tax benefits.

"We're finding that blocks of fewer than 50 acres in inaccessible locations can be tricky to sell but parcels and farms over 50 acres will see people willing to travel to have a look at them."

Stags partner George Alder said pasture prices in his Devon and Cornwall patch had held fairly firm and that quality and supply were the biggest factors.

"Good land continues to make good money because it's scarce," he said.

"Supply is quite low so values are sticking where they are, with some of the wetter, less-productive land attracting less interest."

Fresh to market

Broadridge Farm at Witheridge, near Tiverton in Devon, is one of the latest grassland farms to hit the market, launched during the last weekend of May.

Stags says that as well as being a productive unit with 178 acres, there is some diversification potential in the form of woodland and three fishing lakes.

It comes with an extensive range of good livestock buildings and a four-bedroom farmhouse.

The guide price is £1.725m as a whole, or in three lots.

JOURNAL : Farmers Weekly

A peer-to-peer lending company says it can help farmers who want to apply for grant support to help them diversify or get more efficient, but who don't have the cash to pay for the project upfront.

Cornwall-based Folk2Folk says it is aware that some farmers are not applying for Leader grant support (see box below) because they do not have the initial finance to get their project going.

Ian Bell, head of farm and rural engagement at Folk2Folk, said Leader funding was a great opportunity for farmers, but the fact the money could only be claimed in arrears was a huge barrier to potential grant recipients.

See also: 5 successful Leader grant projects to inspire farmers

"Applicants must be able to pay for their project initially, as grant payments will only be made once the work being claimed for has been completed and paid for," he said.

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"This leaves a gap where potential recipients with fantastic projects are unable to apply for the grant because they can't pay for the project upfront, and this is where Folk2Folk may be able to assist."

Loan details

The business, which was formed in 2013, seeks to match local businesses with investors who will benefit from the 6.5% annual interest rate payable on any money they loan.

Businesses can apply for a business loan of a minimum of £50,000 for a maximum period of five years.

The loan must be secured against land or property.

To date, more than £190m has been invested, with rural, local and farming businesses using it as a platform to secure finance for growth, development and diversification.

The company has developed so it now has a local presence in Cheshire, Cornwall, Cumbria, Devon, Dorset, East Anglia, Somerset, Thames Valley, Three Counties, Worcestershire and Yorkshire.

Leader funding

Leader funding is part of the Rural Development Programme and aims to create jobs and deliver growth in the rural economy.

Grants are available to farmers to increase farm productivity, assist with farm diversification and to boost rural tourism.

The maximum grant rate is typically capped at 40% of the eligible project costs, with the maximum grant on offer tending to range between £35,000 and £50,000.

The scheme is competitive, so whether an application is successful will depend on a range of criteria, including whether it offers the public good value for money.

Applicants need to apply to their Local Action Group (LAG) and each LAG decides at a regional level how best to spend the money they have on offer.

JOURNAL : Farmers Weekly

Dismissing heifers with suboptimal pelvic size before breeding has helped more than halve assisted calvings from 20% of the total to 9% and cut calf losses from 8.6% to 3% at Launceston Farm, Tarrant Launceston.

The farm team's decision to adopt the practice of assessing heifer pelvic size before service – which is common in the US and New Zealand – was taken in 2016 when calving figures came under the spotlight as part of Damory Vet's Beef Discussion Group.

Their data showed that most of the calf losses in their 270-cow organic suckler herd occurred in heifers, with many as a result of a protracted or difficult calving.

See also: Pelvic measuring puts spotlight on calving ease EBV

As a result, heifer pelvic measurements and weights are now taken in advance of breeding and used as selection criteria when choosing replacements.

The impact has been marked in this year's spring calving heifers, with fewer needing assistance or losing calves.

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Vet Matthew Burge of Damory Vets believes calf losses as a result of heifers experiencing a difficult or protracted calving are to blame for sub-optimal performance on many beef farms.

This could be one of the reasons that QMS data shows the average farm is achieving about 87% of calves finished per 100 cows and heifers put to the bull, versus a target of 94%.

Mr Burge explains: "When you look at the data from most of our farms, when you add up the number of stillborn calves, calves that die within 24 hours of birth, and the number of animals needing calving assistance or caesarean, the majority of these are heifers.

"And the vast majority of the time, most are from heifers that were underweight at service or with bad pelvises."

As a result, Mr Burge urges farmers to record and identify when calving problems are occurring. If most of the issues are in heifers, actions can then be taken.

Pelvic measurements are a reliable way to identify animals that have small pelvises that could lead to calving difficulties (see panel "Pelvic measurements – how they are carried out").

Did you know?

One in 20 animals have small pelvises which can cause calving problems

From his experiences of pelvic measuring, Mr Burge says about one in 20 animals can be expected to have small pelvises, which are likely to cause calving problems.

These animals should be culled. Two or three in 20 will have marginal pelvises.

These should ideally not be bred or bred to an easy calving bull.

Weighing also forms a vital component of pre-breeding assessment, because sub-optimal heifer size will negatively affect conception rates.

Breeding at Launceston Farm

At Launceston Farm, farmer Jimi Collis has always weighed heifers as a means of assessing whether animals are ready for service at 15 months to calve at 24 months.

However, due to herd expansion over the past four years, some animals under the optimum 65% of adult weight at service may have been put to the bull.

This was leading to higher barren rates, which were also affected by delayed leptospirosis vaccination in 2016.

Having now reached optimum herd size, Mr Collis and herd manager Pete Barrett are being more selective with the heifers they put to the bull, based on pelvic measurements and weights.

Farm Facts

270 suckler cows

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180 spring block calving, 90 autumn block calving

Aberdeen Angus base crossed to Limousin and some Simmental. Now introducing Stabiliser genetics to improve maternal traits

Always select bulls within the top 5% for calving ease

Heifers must now be over 360-380kg at service, depending on breed, and with a good pelvis.

When a group of 33 spring-born heifers were assessed at the end of May, about half were under the optimum service weight, two were freemartins and three were advised to be culled due to marginal pelvises.

A higher number of heifers than needed will always be initially inspected, with the aim of breeding enough to meet a 10% replacement rate.

The high proportion of small heifers this year is a result of a poor out-wintering turnip crop, coupled with the Beast from the East.

The heifers that fell out of spec will now be fattened and sold.

Retaining all heifers for breeding

On farms that need to retain all heifers for breeding, Mr Burge advises planning in advance to ensure animals meet growth targets.

This could include splitting heifers off soon after weaning so they can be preferentially fed to achieve bulling weight.

Overall, Mr Barrett is in favour of being more selective in breeding decisions as he believes it helps labour, welfare and costs.

He adds: "Every farmer needs to be seen to be doing everything properly. It's another tool to show Joe Public we're doing everything to the best of our ability."

Benefits of pelvic scoring and weighing

The benefits are clear to see in the herd's figures.

Since pelvic scoring and weighing, the number of assisted heifer calvings in the spring block has reduced from 21% in 2017 to 9%.

The remaining 9% were due to factors unrelated to heifer size, such as the calf being breached or twins.

Only serving heifers at the correct weight and adhering to vaccine timings has also led to 9% fewer barren heifers.

Mr Collis adds: "We want to be efficient and if we can do that by measuring things not seen to the naked eye, then all the better. It's so noticeable how much easier they calved. Not just how they calved, but how quickly they calved."

Pelvic measurements – how they are carried out

Pelvic measurements should form part of pre-breeding checks, carried out by a vet ideally a few weeks prior to service.

Weight and heifer age in months are needed for accurate results

A sliding caliper device is inserted into the rectum

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The width and height of the pelvis are measured and multiplied together to give the pelvic cross-sectional area

Pelvic area alone is not enough to determine if calving problems will occur. The measurement is divided by a conversion factor, which is determined by the weight and age of the heifer (See table)

Heifers must have reached puberty for the reading to be accurate

Conversion factor for calculating expected calving difficulties

Heifer weight (kg)

Age at measurement (months)

8-9

10-11

12-13

14-15

16-17

18-19

230

3.7

4.1

4.4

270

4.0

4.3

4.6

4.9

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320

4.2

4.5

4.8

5.1

5.4

5.7

360

4.7

5.0

5.3

5.6

5.9

410

5.3

5.6

5.9

6.2

450

5.5

5.8

6.1

6.4

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Example calculations using conversion factors

Ideally heifers should be able to birth a 35kg calf without assistance.

10-month-old heifer weighing 320kg

Pelvic cross-sectional area = $12 \times 15\text{cm} = 180\text{cm}^2$

$180/4.5 =$ can be expected to birth a 40kg calf without difficulties

12-month-old heifer weighing 360kg

Pelvic cross-sectional area = $11 \times 13\text{cm} = 143\text{cm}^2$

$143/5.0 =$ can be expected to birth only a 28.6kg calf without difficulty – consider culling or at least breeding to an easy calving bull.

JOURNAL : Farmers Weekly

Poll Dorset breeder Graham Langford abandoned the show ring in favour of focusing on Signet recording. He credits the move with increasing the value of his prime lambs by £5 a head.

He said this has been achieved by focusing on commercial traits to accelerate genetic gain and producing sheep that are more functional.

Michael Priestley visited him at his farm in Devon to find out what prompted the move and how it's changed the flock's breeding policy.

Great Garlandhayes Farm facts

53ha over three holdings

130-head pedigree Poll Dorset closed flock (it isn't closed if replacements are bought in)

Lying at 245-310m above sea level (800-1,000ft)

Supplying prime lambs through Waitrose scheme

Carcases typically 18-20kg at R2 or better

Signet recorded and EID tagged since 2000

Lambs outdoors

Signet figures show rams have the potential to pass an additional 2.88kg onto lamb scanning weights compared with 15 years ago, which at £2/kg liveweight is worth over £5 a head to the prime lamb.

This represents a major step forward in performance since Mr Langford and his wife Anne, at Great Garlandhayes Farm in Clayhidon, Devon, starting breeding Poll Dorsets in 2000.

Based on the edge of the Blackdown Hills, the Blackdown flock is targeted purely at the commercial autumn lamb market, although Mr Langford explains this wasn't always the case.

See also: How a young breeder manages 90 pedigree ewes and full-time job

Why he stopped showing

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In the early days, the flock competed on the show circuit, winning championships at the Dorset, Devon County and Bath and West shows. But the Langfords believe the show ring was hindering genetic progress.

"I am not anti-showing, but I found it difficult to meet show requirements and maintain on-farm functionality," explains Mr Langford.

<https://infogram.com/great-garlandhayes-flock-indices-1hnq41xd5g9k23z>

"Pedigree showing was a great way to get to know people and I enjoyed it, but eight years ago I stopped and since then the maternal progress of the flock has been more consistent."

Mr Langford believes that concentrate feeding and breeding for larger heads and wider shoulders for the show ring is irrelevant for the commercial sector. Instead, he is focusing on reducing intervention at lambing and producing parts of the carcass that the market wants.

"There is little money in a shoulder joint," he explains. "And the market for very large legs of lamb has gone, so a longer, more balanced conformation is preferred."

Since ceasing showing, the flock has grown a reputation among commercial, early lambing flocks, with six regular customers across the region all targeting the early-lambing market.

High-index performance-recorded rams are bought and sold through the Centurion Group of Breeders, a discussion group and sire reference scheme, which Mr Langford helps co-ordinate.

Breeding programme

Teaser rams are put in at the end of March for 14 days, before ewes spend 35 days with the ram in five tupping groups at 20-30 ewes per ram. This usually sees 80-90% tupped in the first cycle.

After shearing and scanning in late June, any empty ewes (8-10%) go with rams again in July to lamb in November, although their progeny is then only kept for meat production.

September lambers usually scan at 150-160% with a 175-180% lambing overall and 3-4% empty rate.

Tups are matched to females to improve traits like litter size, fat depth and muscle depth. Fat depth is currently a little low and rams are being matched to improve that trait, says Mr Langford. Two ram lambs are usually retained for use, as lambs, each year.

"I do not breed my ewe lambs as it brings huge management involvement and I want to choose my replacement ewes as shearlings," he explains.

Sheep are culled according to milking ability, udders, lameness (third intervention) and fertility. Lameness is managed by keeping scald at bay, liming the floor when sheep are worked and treating cases with an alamycin injection in the foot, and a modern view is taken not to routinely trim feet.

Benefits of recording

As well as weight-gain improvements worth £5 a lamb, Mr Langford's Signet figures show a 10% increase in female prolificacy since 2004.

Ewes are also milkier, producing 1.4kg more milk since 2003. Meanwhile, birthweights have become more consistent at around the 4-4.5kg mark, whereas during the show years weights of up to 9kg were not uncommon.

Mr Langford explains he was focused on figures from the outset of establishing the flock.

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"You can't manage what you don't measure," he says. "I will look at a ram's index before I look at phenotypic characteristics, like appearance or shape of the animal. I think most farmers tend to do it the other way around."

2018 Signet evaluation

Terminal index

Maternal index

Breed average

280

237

Blackdown flock

375

296

Management overview

Grassland management

Fields are small (2-3ha) and rotationally grazed. No fertiliser is used. Instead fields are spot-sprayed only.

Most fields are very old swards that are being slowly improved by drilling with spring barley for a local dairy farm, following with a grass mix of festuloliums (ryegrass/fescue), trefoils, sheep parsley, cocksfoot, timothy, plantain and burnet.

Concentrate feeding

No breeding stock receive anything other than forage when growing. Prime lambs are built up to 0.5kg a head/day post-weaning on a 18% crude protein starter nut.

A breeding ewe nut is fed to breeding ewes in late gestation at 0.4-0.5kg a head/day to help colostrum production.

Health plan

Flooring is limed and stock are footbathed with zinc sulphate every time sheep are worked (3-4 times/year). All pastures are rested for 14 days to allow the scald (*fusobacterium necrophorum*) to die.

No abortion vaccine is currently used, only a clostridia vaccine. Antibiotics use is restricted to lameness cases (alamycin) and 1-2 joint-ill cases a year are treated with a long-acting antibiotic.

Lambing

Late summer, outdoor lambing minimises intervention and antibiotics. Only 3-4% of sheep require lambing assistance as average birthweights for twins are 4-4.5kg with a lamb mortality figure of typically about 5%.

Once lambed, ewes are brought inside for 24-36 hours and lambs are tagged and tailed. All ram lambs are kept entire.

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September lambs are weaned at Christmas, and November lambs are weaned in January at 12 weeks old. DLWGs of 300-450g a head are typical, with the first lambs sent to Jaspers at Launceston on a Waitrose contract at 14 weeks old.

Centurion Group of Breeders (CGB)

A discussion group and sire reference scheme formed in 1990

10 breeders contributed 10 sheep each to be bred to a high index ram each year

Holds an annual spring sale at Sedgemoor

Backed by the Universities of Exeter, Warwick, Nottingham and Sheffield and working with Cornell, the CGB aims to find gene markers for the sheep that consistently lamb in the autumn and which are prolific.

JOURNAL : Farmers Weekly

South Derbyshire Police's rural crime team have released a picture (right) of a couple with a Dalmatian after a report of a dog chasing sheep.

The incident allegedly occurred at about 2pm on Monday, 30 April, in a field off London Road in Shardlow.

PCSO Kerry Wallington-Waite said the sheep became very distressed after apparently being chased down the field by a Dalmatian.

The rural crime team would like to speak to the couple in the photo about the incident and asks anyone who can identify them to get in touch.

See also: Tips on staying legal when tackling sheep worrying by dogs

PCSO Wallington-Waite said: "Dog walkers need to be careful when they are walking their pets in such locations. It is very tempting to let dogs off their leads, but their natural instincts can be to chase sheep.

"This can be dangerous for the sheep and affects the livelihood of the farmers."

It is a criminal offence for the keeper or owner of the dog to allow it to worry livestock and they are liable for any damage caused.

Police urge dog walkers to keep their pet on a lead when walking near livestock.

If you recognise the couple in the photo, call 101 and quote reference number 18*204114.

Alternatively send a message online by visiting Derbyshire Police's website.

You can also anonymously contact Crimestoppers by calling 0800 555 111 or visiting their website.

JOURNAL : Farmers Weekly

Dwindling stocks of carbon dioxide, a vital component of the slaughtering process used in many abattoirs, could have an impact on pig and poultry supply chains as early as next week.

About half of pigs and up to 70% of poultry in the UK is slaughtered using carbon dioxide gas, but Farmers Weekly understands that some abattoirs have supplies to last them only a few days.

See also: How a pig farmer has lowered production costs by 3.8p/kg

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A drop in the pace of slaughtering could have a knock-on effect down the supply chain as finished animals would be unable to leave farms, and farmers would be unable to restock with new batches of animals.

The carbon dioxide shortage means some abattoirs have already had to scale back production as they switch to alternate forms of slaughter, such as electric systems, which are still the primary method in some abattoirs.

What is the problem?

Carbon dioxide is a by-product of fertiliser production. However, a combination of plants closing for essential maintenance works and other plants shutting down because of unexpected technical failures has led to a huge shortfall in stocks of the gas across the continent.

Farmers Weekly understands that several gas companies have said they have been unable to fulfil contracts, but the situation is mixed, with some abattoirs saying they still have three to four weeks supply.

How could pig production be affected?

About half of the pigs in the UK are slaughtered using carbon dioxide. However, the vast majority of abattoirs have contingency plans enabling them to switch to secondary methods of slaughter.

The situation is disruptive but not disastrous, according to pig industry consultant Peter Crichton.

“Most abattoirs using this method are still able to kill, but the kill rate is slower in places,” he said.

“The majority [of abattoirs] have safeguards in place and have a plan B, having retained older systems as a back-up.”

Mr Crichton recommended that pig producers should not sit on animals and should sell now if possible.

Industry has been working closely with the government to manage CO2 stocks, and veterinary adviser Dr Craig Kirby, of the Association of Independent Meat Suppliers, stressed that this was not a situation that would imminently lead to empty shelves.

“The best advice for producers is to keep in touch with factories and make sure that everything is scheduled and operating normally,” he said.

The cross-industry group, including the British Poultry Council (BPC), National Pig Association (NPA), British Retail Consortium (BRC) and Defra, would be holding a conference call on Monday to assess the situation.

How could poultry be affected?

As with pigs, carbon dioxide is widely used in the slaughter of chickens and also in the packaging of the meat, with between 60% and 70% of chickens that enter the food chain slaughtered using the gas.

Richard Griffith, chief executive of the British Poultry Council, said production levels on slaughter lines had not been affected yet, but abattoirs were “living hand to mouth” on desperately short supplies.

He said there could be no guarantee that slaughter levels could be maintained at full output beyond the weekend.

The BPC was still hopeful that a crisis could be averted.

Mr Griffith's advice for all poultry farmers is to keep closely in touch with their supply chain for updates on the situation and to proceed as normal for the time being.

JOURNAL : Farmers Weekly

Potentially lethal asbestos cement roofing has been found dumped at the entrance of a farm in Kent.

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The toxic material has been fly-tipped outside a farm gate in Haymans Hill, Horsmonden, amid a “spate of fly-tipping incidents” involving industrial waste in the area, say councillors.

On this occasion, because the fly-tipped waste was dumped mostly on the public highway, it is the council’s responsibility to remove it – not the private landowner.

See also: Revealed – the burden of fly-tipping on farms

Jane March, a Conservative councillor for Brenchley and Horsmonden, said: “The asbestos sheets were probably tipped off a small tipper lorry on Friday 25 May.

“The load was tipped onto the highway blocking access to two gates. It appears that whoever dumped it deliberately chose a steep hill, tipped it and then quickly escaped.

“Tunbridge Wells Borough Council has put barriers around it ahead of organising asbestos removal.”

Cllr March, who also farms locally, said the pile of rubbish is still in place as it needs specialist licensed council contractors to remove it.

“Cars can get around it, but they are degrading the grass verge and hedgerows,” she added.

'A regular occurrence'

Lucy Noakes, clerk to Horsmonden Parish Council, added: “The asbestos waste was dumped on the edge of the road in front of the farm gate. It’s nasty stuff.

“It didn’t totally block public access to the road, but it caused the farmer some inconvenience.

“Fly-tipping is becoming a more regular occurrence around here. We’re getting builders fly-tipping waste in country lanes.”

The parish council is urging homeowners and landowners who are having work done on their property to always ask their builder to see a waste carrier licence to ensure they are licensed to remove waste.

People should also try to avoid cash-in-hand deals for waste removal, the council added.

JOURNAL : Farmers Weekly

Police are appealing for information following the theft of 17 sheep near Dorchester, Dorset.

The cream-coloured Dorset Horn and Polled Dorset pedigree ewes were taken from a field in the area between Crossways, Owermoigne and Moreton.

Dorset Police said the sheep rustling theft is believed to have happened sometime overnight on Saturday 26 May.

See also: Fleece – Police failure to tackle sheep rustling exposed

Police community support officer Sarah Hart said: “I am appealing to anyone who witnessed any suspicious activity in the area over the weekend, such as any 4x4 or trailer movements at night, or who has any information that could assist with the investigation to please contact us.

“We would also urge farmers and members of the rural community to be vigilant and report any suspicious vehicle movements they encounter.”

Easy pickings

Thieves often see livestock as easy pickings – especially in isolated rural areas.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Despite hundreds of sheep rustling incidents across the UK, a Farmers Weekly investigation last year found just nine of cases that resulted in a conviction.

In total, some 1,203 incidents of sheep rustling were reported to 45 police forces between April 2012 and April 2017 – equivalent to 4.62 incidents every week.

Information

Cumbria Constabulary recorded 262 incidents over this period, the highest of all forces, followed by West Mercia Police and Devon and Cornwall Police with 130 and 122 cases, respectively.

North Wales Police recorded 67 cases, and South Wales Police 42.

Anyone with information about the Dorset incident is asked to email 101@dorset.pnn.police.uk or call 101, quoting occurrence number 55180080665.

Alternatively, contact Crimestoppers anonymously on 0800 555111 or via www.crimestoppers-uk.org.

Take action to reduce livestock theft

Livestock theft is notoriously difficult to prevent – but police say farmers and smallholders can take action to reduce the chance of being targeted.

Check livestock and the security of perimeter fencing regularly

If sheep or cattle are making more noise than usual it could mean something has disturbed them

Make sure gates to the field are secured by using a suitable chain and padlock and ensure hinges are capped or inverted to prevent their removal

Block any unused gateways with machinery or large tree trunks

Use herd or flock ear tags, horn brands, freeze marking or tattooing to make your animals more easily identifiable should they be stolen

Install CCTV in barns or yards and keep gates locked

Use hard landscaping such as ditches, mounds and hedges to make vulnerable fields less easily accessible for vehicles. Installing bollards and removable cattle grids can also be effective

Installing remote gate alarms and hidden cameras that will alert owners instantly if someone unauthorised is driving vehicles across their land.

(Source: Dorset Police)

JOURNAL : Farmers Weekly

Fine weather has made for a good start to agricultural shows across the country, with some reporting record visitor numbers.

Glorious sunshine and the optimism surrounding the royal wedding helped attract more than 90,000 visitors over three days to the Devon County Show, making it one of the most successful for many years.

This week it's the turn of the Royal Bath & West Show, which is expected to attract 155,000 visitors over three days (30 May to 2 June).

The event, near Shepton Mallet, is England's biggest celebration of agriculture and rural life.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

See also: Balmoral Show 2018 – highlights and photos

Country and agricultural shows are drawing in wider audiences, with people from towns and cities connecting more with the countryside.

The NFU has been working hard to promote the industry with the wider public and children.

The annual Linking Environment and Farming Open Farm Sunday event and television shows, such as Countryfile and Lambing Live, are helping provide an insight into rural life and the world of agriculture.

But are agricultural shows still attractive for real farmers? Have your say in our poll.

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JOURNAL : Farmers Weekly

In the week that the government's consultation on the future of farm policy closes, Defra has made it clear that it plans to abolish direct payments for farmers after Brexit.

How should they be phased out? Let us know by responding to our poll below.

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See also: Gove plans to redirect £150m BPS savings to the environment

JOURNAL : Farmers Weekly

Arable farmers, industry leaders and academics will be gathering at Stoneleigh Park in Warwickshire on Tuesday (5 June) to attend a summit on integrated pest management (IPM).

The event, NFU IPM summit: What's in your toolbox?, will discuss the research and practicalities of a holistic, integrated approach to the pest, weed and disease challenge for combinable crops.

Guest speakers include Paul Temple, chairman of the Voluntary Initiative, Phil Jarvis, farm manager at The Allerton Project farm at Loddington in Leicestershire and AICC independent agronomist Sean Sparling.

See also: Biopesticides to play a greater role on arable farms

Many UK farmers and growers already implement an IPM approach, using cultivation and management techniques, such as crop rotations and cover cropping to productively and sustainably cultivate crops.

What is integrated pest management?

Integrated pest management is the holistic use of all available plant protection methods and subsequent integration of appropriate measures to discourage the development of weed, pest and disease populations and keep the use of pesticide and other interventions to levels that are economically and ecologically justified and minimise risks to human health and the environment (based on the UN's Food and Agriculture Organization and Sustainable Use Directive definition).

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Defra secretary Michael Gove has set out his vision for a “green Brexit” and the release of Defra’s Health and Harmony paper and its 25-year environment plan will only add increasing pressure to the way UK agriculture operates.

‘Green Brexit’

The future of farming is set to be green and there are no doubts much is to change over the coming years with our exit from the EU.

Tom Bradshaw, NFU crops board chairman, said: “Together we must make more noise about the positive influences UK farmers have on the countryside whilst also addressing any existing knowledge gaps that could aid productivity and sustainability of future food production.”

Take part in our poll.

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JOURNAL : Farmers Weekly

Young farmers have overwhelmingly indicated they have somebody they can speak to if they have a problem at work.

Farmers Weekly polled 100 YFC members, 83% of whom said they had somebody to share thoughts with if they had an issue, with 10% indicating that this was only the case sometimes.

See also: Read our full coverage of the NFYFC Annual Convention

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"There's always somebody to talk to in farming. This is especially the case with Young Farmers," said Jonathan Melhuish from Liskeard YFC.

"Everybody is friends in their clubs and in your groups everyone goes out on a Monday and has a yarn at the end of the night."

Mental health issues are coming to the fore in farming at the moment, especially for men, said Colin Poore, Hampshire YFC.

"A lot is being done to improve awareness and increase support for each other," he added.

The mental health of the nation’s food producers and the isolation of farming has been highlighted in recent months after increases in mental health issues in agriculture have made national headlines.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

One of the UK's largest free-range chicken producers has urged arable farmers to invest up to £1m and diversify into contract poultry production.

Traditional Norfolk Poultry (TNP) already operates more than 50 contract poultry-rearing sites across East Anglia. But it says there is a rising demand for high-welfare free-range poultry and is looking to continue its expansion.

See also: How to become a county council farm tenant

Mark Gorton, co-founder and joint managing director, said: "From our conversations with the major retailers, we know there is no stopping the increase in popularity of free-range poultry.

"To meet this demand we need to bring a new generation of farmers into the industry by providing them with a strong business case for investing in production.

"We are targeting farmers willing to invest up to £1m to set up a poultry unit.

"This will generate a substantial addition to the farm income as well as returning their investment within 10 years," said Mr Gorton.

Ideal site

5ha

Three buildings housing 40,000 birds

Cost £1m to construct

He explained that the business model was based on farmers investing in purpose-built, static housing designed by TNP to accommodate free-range flocks of about 40,000 birds in a high-welfare system.

The contract package covers everything from the initial planning, house construction and range design through to comprehensive in-house training for new growers.

Under the contract the company owns the birds, housing and equipment and pays farmers for their facilities and management of the flocks.

Although the model scheme will typically provide a return on investment in 10 years along with enhancing farm income, it can be tailored to a longer period if the farmer opts to take a higher income each year.

Alternatively, TNP offers the option of renting back the facility if a farmer does not want to be involved in running the unit.

What's in the deal?

TNP retains ownership of birds, housing and equipment

Pays income for management and site

Supports through planning, design and construction of housing

Provides practical training

10-year return on investment

Longer return on investment exchange for higher annual income

Rents back unit if farmer opts not to manage flock

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

JOURNAL : Farmers Weekly

British farmer-owned **co-op** First Milk has announced a 1.2p/litre farmgate price increase from 1 July.

The rise means First Milk's 900 producers will receive 27.2p/litre for standard liquid litres with a constituent content of 4% butterfat 3.3% protein.

See also: 6 key factors influencing dairy herd profitability

For ease of comparison, the rise will take the processor's manufacturing standard litre to 4.2% butterfat, 3.4% protein.

July will be the first month that First Milk price has increased its pricer since November 2017, since which the **co-op** has seen four holds and three drops.

This latest rise means the majority of major UK dairy processors have increased milk prices for July, with Muller, Meadow Foods and Dairy Crest announcing higher payments in recent weeks.

<https://infogram.com/first-milk-july-1hnq41l9ylop23z>

Strengthening dairy commodities markets and improved business performance were given as reasons behind the 1.2p increase, according to First Milk vice-chairman and farmer director, Jim Baird.

"We have strived to deliver as much stability as we can to our members during the most recent period of volatility," said Mr Baird.

"As always, we are focused on maximising member milk price, and will continue to pass on any further increases as soon as we can.

Production capacity increase

Mr Baird added First Milk had recently started a £6.5m investment project at its Haverfordwest creamery that will expand the facilities' capacity by 20%.

He added: "We are well placed to utilise additional milk from our farmers, who are able to grow their businesses without restriction, encouraged by our production bonus and with the security of an evergreen contract.

"In addition, we have been proactively taking on new members and suppliers across the country, with additional milk volume coming through in the year."

Other July milk price moves

Liquid litres (4% butterfat, 3.3% protein)

Yew Tree Dairy 1.5p to 28p/litre

Sainsbury's Dairy Development Group 0.36p to 28.48p/litre

Pensworth 1.2p to 27.2p/litre

Muller 1.25p to 28p/litre

Meadow Foods 1p to 28p/litre

Manufacturing litres (4.2% butterfat, 3.4% protein)

Belton Farm 1p to 28.25p/litre

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Dairy Crest 0.65p to 28.65p/litre

Glanbia 1.5p to 28p/litre

JOURNAL : Farmers Weekly

There is a wide range of establishment methods for oilseed rape and the most suitable technique will depend on soil type, soil conditions, prevailing weather and likely weed and slug pressures.

As well as selecting a method that suits soil conditions and availability of machinery, costs can influence choice.

In recent years, low-cost, one-pass establishment systems have become popular, even though any potential savings can be lost if establishment is patchy or the crop fails.

See also: Why strip-till is key part of one farmer's cultivations approach

Oilseed rape and soil compaction are not a good combination, which is why establishment systems that include a deep loosening leg are in demand – whether that's done as a separate pass or is part of the drill being used.

Either way, in dry conditions seed should be sown as soon as possible after cultivations to minimise soil moisture loss and ensure that the seed germinates.

Rolling after sowing is advised in most situations, to retain moisture and reduce slug risk.

With techniques where crop residues are being retained, a straw rake may be required to uniformly spread the residue.

Uneven distribution of large amounts of trash can be a problem – both with its effect on germination and its ability to harbour slugs.

Otherwise, the aim of any cultivations prior to establishment is to:

Correct compaction

Maximise seed-to-soil contact

Sow seed at 2-3cm depth

Retain soil moisture

Limit weed numbers

Reduce slug risk

Autumn nitrogen, applied up to a maximum of 30kg/ha in Nitrate Vulnerable Zones, is often used to boost early crop growth, especially where minimal soil disturbance means that no mineralisation is taking place.

1. Broadcasting

Broadcasting is a quick and cheap option, as seed is spread into standing cereals, often via Autocast.

It can be a high-risk option, as it may cause poor and uneven establishment. The main threat is that chopped straw or trash is not distributed evenly, forming a dense mat, which can impede the seedlings.

As a result, slug damage can be higher than with other systems.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

In addition, broadcasting does not allow the use of treated seed or pre-emergence herbicides, as the seed is not covered.

Seed rates tend to be higher than with other methods, to compensate for the variability in establishment achieved.

However, it can be done when the ground is too wet to allow deep cultivations. There is very little soil moisture loss, a benefit in dry years, and the long stubble left acts as a deterrent to pigeons. Broad-leaved weeds are unlikely to be a problem.

2. Direct drilling

A less risky technique than broadcasting in most seasons, direct drilling can work well where there is little or no surface tilth present and soils are well structured.

A low-cost, one-pass technique, it minimises soil moisture loss and new drill technology allows accurate placement of seed and good slot closure. Fertiliser can be applied at the same time.

Again, uneven trash distribution can be a risk to good establishment, so a stubble rake may be necessary.

Weed numbers tend to be reduced, due to minimal soil disturbance, so pre-emergence herbicides are often not required.

The use of companion crops is becoming increasingly popular with direct drilled crops, where they help to improve rooting, confuse pests and recycle nutrients.

The companion plants are either killed by winter frosts or taken out with a targeted herbicide.

3. Strip tilling

Strip tillage is a low-disturbance tillage practice where only a narrow band of soil is cultivated to produce tilth. The remaining soil is left undisturbed, with crop residues retained on the soil surface.

A popular technique for establishing oilseed rape, strip tillage allows the seed to be placed accurately and most systems have the facility to put a band of fertiliser underneath the seed.

Another one-pass system, it is quick and brings costs down. Drill technology has improved in recent years, increasing the consistency and reliability of the system as well as allowing wide or conventionally-spaced rows.

Uneven crop residue distribution is a potential problem, both for establishment and pests. Leaving a longer stubble can help to deter pigeons.

4. Subcasting

Subcasting places seed in soil disturbed by widely spaced tines, such as those on a subsoiler.

It works well in drier soil conditions and where there is compaction, but often runs into difficulties in wet soils due to slotting and poor drainage.

It allows seed to be placed into a prepared seed-bed at less than 5cm deep and can cope with crop residues, as the legs are widely spaced.

The depth of the pass will depend on soil conditions. It is essential to roll afterwards and a broad-leaved weed herbicide is usually required.

5. Non-inversion tillage

Non-inversion tillage offers the greatest flexibility and deals with any surface compaction.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

It is suitable for most soils and conditions and makes use of either disc or tined cultivators, often with a seeder unit attached.

This means it can be a single-pass operation or drilling can be done with a cultivator drill in a separate pass.

Whichever way it is done, consolidation is important for good seed-to-soil contact. It will also help to reduce slugs.

Pre-emergence herbicides will be required in most situations.

6. Ploughing systems

Ploughing can produce an excellent seedbed, providing secondary cultivations achieve good consolidation and retain soil moisture.

However, it is expensive to perform and time-consuming, so tends to only be used as a last resort before oilseed rape or where grass weed numbers are too high.

It is an effective method of reducing compaction and can help improve crop rooting.

Tight turnaround times and high costs mean that it is used infrequently before oilseed rape drilling – especially as it also leads to soil moisture loss.

Pros and cons of five different OSR establishment techniques

Technique

Cost

Pros

Cons

Broadcast into standing crop

£

Quick

Cheap

Retains soil moisture

Works when wet

Seed not covered

Uneven establishment

Higher risk

Direct drill/Strip-till

££

One pass

Low cost

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Retains soil moisture

Slug risk

Residue spread

No mineralisation

Sub-cast

£££

Less soil compaction

Retains soil moisture

Copes with trash

Some sowing depth variability

Weed control

Min-till

££££

Flexible

Less soil dependent

Reduces surface compaction

Risk of soil moisture loss

Ploughing

£££££

Deals with soil compaction

Better weed control

Better crop rooting

Slug control

Time consuming

Expensive

Soil moisture loss

Farm trial findings

Establishment costs can be reduced without compromising the output or profitability of oilseed rape growing, according to farm trials conducted in Herefordshire.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Seven different establishment methods were compared side-by-side in 24m-wide blocks of Elgar on Russell Price's farm near Ledbury last year, with all of the methods including a deep loosening leg as either a separate pass or an integral part of the drill.

Costs ranged from £131/ha down to £54/ha – with the cheapest system representing a £77/ha saving over the most expensive regime.

"It was interesting to note that the second cheapest system was the highest yielding," says Mr Price, who is one half of the joint AHDB Hereford Monitor Farm. "That was reassuring, as it's the system we favour on this farm."

He adds that the best performing blocks of oilseed rape weren't the most pleasing to look at.

"If we'd judged them on cosmetics alone, then the more conventional establishment systems looked the best.

"Although they all yielded well, the direct drilled plots based on the DTS concept came out on top at 5.68t/ha. Our thinking is that it's all down to the strength of the root."

There was very little difference between the Sumo and the Mzuri, he notes, although the Mzuri's 60cm-wide row spacing wasn't as good in terms of yield as 30cm-wide rows.

Mr Price adds that while the findings were of interest, he is wary of reading too much into them after just one year of results.

"In another season, things might have been different. It's one of the issues that oilseed rape growers are up against."

The trial is being repeated this year, with two further drills joining the line-up to be assessed.

Costs and yields of eight different approaches being trialled at Town Farm

Primary

Secondary

Tertiary

Cost £/ha

Yield t/ha

Subsoil

Power harrow combination

Roll

123

5.164

Single Pass Min Till

Power harrow combination

Roll

131

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5.041

Single Pass Min Till

Min till cultivator drill

Roll

112

5.016

Subsoil

Min till cultivator drill

Roll

104

5.164

Subsoil

Sumo DTS

Roll

118

5.090

None

Sumo DTS

Roll

67

5.683

None

Mzuri (narrow leg spacing)

Roll

67

5.213

None

Mzuri (wide leg spacing)

Roll

54

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4.649

JOURNAL : Farmers Weekly

Coccidiosis is an intestinal disease usually seen in young beef and dairy calves aged between three weeks and six months.

Infection is chiefly dependent on the level of challenge they face and their immune status.

Failure to control the disease can have an effect on future productivity levels, including growth rates, and can delay the onset of puberty, leading to milk loss production in dairy calves.

However, tactical use of licensed products and methods to reduce environmental contamination can help keep its cause – predominantly the protozoal parasite *Eimeria* – in check.

Vet Oliver Tilling from Shepton Veterinary Group answers some key questions.

What causes coccidiosis?

It is caused by the protozoan *Eimeria*. The *Eimeria* parasite is widespread and it is likely that most dairy and beef calves will acquire infection at some point.

There are 13 different types of *Eimeria* species, but the three most harmful and pathogenic are *Eimeria bovis*, *Eimeria zuerni* and *Eimeria alabamensis*. Each species of *Eimeria* is host-specific, with no cross-infection (cattle cannot infect sheep and vice versa).

The lifecycle of *Eimeria* is a complex one, with the parasite undergoing many cycles of multiplication, causing extensive gut damage in the process.

The calf ingests infective oocysts from their environment, usually shed from the faeces of an infected animal.

Once the oocysts are in the calf, they release cells called sporozoites, which enter the lining of the intestine and multiply rapidly, until they develop into oocysts, which are then excreted back into the environment in the faeces.

One oocyst can give rise to many thousands more, taking between 16 and 21 days to achieve this.

What are the symptoms?

The development of disease in calves is dependent on many things, including parasite, host and environmental factors.

Calves with clinical coccidiosis present with watery scours containing blood and mucous; often the calf is seen to strain to pass the faeces and in severe cases, scour may contain strips of the intestinal mucosa.

Subclinical coccidiosis is much more common, and occurs when the coccidial challenge is lower, or when the calf has developed some immunity against the parasite.

Often, the subclinical signs show as:

reduced appetite

weight loss

reduction in growth rate

a dull appearance.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Economic losses from the subclinical signs within a group can be greater than if clinical signs are seen.

Can it often be mistaken for other diseases?

Yes, as there are several causes of scour in calves. However, these mainly occur earlier than the three weeks when coccidiosis presents. The main diseases coccidiosis can be mistaken for include cryptosporidium, rotavirus, coronavirus and salmonella.

The main symptoms of coccidiosis are subclinical signs such as not growing well and looking dull and malnourished, so pneumonia and poor feeding could also be mistaken for the condition.

How can you get a correct diagnosis?

A veterinary diagnosis is required, with the veterinary surgeon taking into account the farm history, clinical picture and risk factors.

The symptoms the calf shows are often enough to be suspicious of coccidiosis. However, to be certain that an infection of coccidiosis is apparent, a faecal analysis is required from a number of calves in the affected group.

This diagnosis is based on the number of oocysts per gram in the faecal samples, and indicates which species of coccidiosis are in the faeces; as not all species of the Eimeria cause disease in calves.

Can it be treated and how?

All affected calves should immediately be removed from the suspected source of infection and if it's likely one calf is affected, the rest of the group might be too.

It's advisable that the whole group should be treated the same, as failure to do so could cause reinfection.

Products that contain the active ingredient decoquinate or toltrazuril are licensed products that can be used in the treatment and prevention of coccidiosis.

Decoquinate works early in the Eimeria lifecycle, destroying them during the infectious stages. Sadly, it is not as effective in calves that are already infected, so it is imperative to administer it before the onset of the risk period.

Toltrazuril will destroy the parasite in the later life stages when it's in the intestinal cells and helps to reduce pasture contamination.

Treatment is best given during the period between exposure and the onset of clinical signs, as this will allow immunity to build up before excessive damage is done to the calf's gut lining.

How can you prevent it?

Strategic treatment with an effective anti-coccidial is a good prevention, based normally on timing of suspected exposure and knowledge of any previous outbreaks on the farm.

Products containing the active ingredient diclazuril can be used as a preventative measure for calves.

The level of challenge depends on the level of oocysts that have built up in the environment. Therefore, good hygiene plays a major role in preventing and controlling coccidiosis.

Water and feed troughs should be cleaned and emptied on a regular basis and all bedding kept clean and dry, with hay from contaminated pastures not fed to calves.

As with many calf diseases, good ventilation will help to reduce oocysts, as the build-up can be greater in warm and moist areas.

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Older cattle are a big risk factor for spreading infection to younger calves, so it is advisable to avoid mixing age groups.

Finally, overcrowding at pasture and when cattle are housed should also ideally be avoided, as this could lead to stress and increase the risk of further infection.

JOURNAL : Farmers Weekly

Ringworm is a very common and highly transmissible skin infection, passed between both cattle and humans.

It causes intense irritation and can affect growth rates and damage hides, but steps can be taken to prevent it.

Vet Keith Cutler of Endell Veterinary Group, Salisbury, Wiltshire, answers some key questions on the infection, explaining what causes it, the symptoms and treatment.

What is ringworm and what causes it?

Ringworm is a fungal skin disease caused most commonly by the spore forming fungi trichophyton verrucosum.

What does it look like?

Cattle are the most commonly affected farm animal species. Affected animals usually have roughly circular areas of hair loss where the skin becomes slightly thickened, crusty and flaky and greyish in colour.

These areas are often seen on the face, around the eyes and over the shoulders, although all areas of the body, including the udder, can become affected and the areas affected can be extensive.

See also: Q&A: Everything you need to know about liver fluke in cattle

Can it affect livestock performance?

Generally, the effect on performance is minimal, although affected areas are itchy and while animals are rubbing they will not be eating, which will affect performance and cause additional damage to their hides.

Rather than its effect on performance, the presence of widespread and extensive ringworm lesions among groups of cattle is often suggestive of an already debilitated state.

How should it be treated?

The in-feed treatments that were available years ago no longer are. Topical fungicidal washes containing the active ingredient enilconazole or similar are available.

These are effective, but only where they are applied and treating the whole animal is rare, so the disease often spreads to untreated areas of skin giving the appearance that the treatment may not be working.

The infection often resolves without treatment, due to the development of natural immunity and exposure to UV light from the sun after turnout, especially in less severe cases.

Does it take long to clear up?

If not treated, lesions can persist for a considerable period of time. Even if the causative fungus is treated and killed it will take several weeks, or perhaps months, for hair to regrow and the lesions to disappear.

Is it infectious?

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Yes, ringworm is infectious. The causative fungus produces spores which can spread from animal to animal where there is direct contact; this is why the part of the face around the eyes, which often rubs similar areas on other animals when eating from troughs, is commonly affected.

Spores can also, however, be spread by indirect contact via fence posts and building partitions. Isolating affected animals, therefore, often fails to prevent spread of the disease.

Is it contagious to humans?

Yes, ringworm is contagious to humans, often causing an itchy, roughly circular patch of dry flaky skin with an expanding red margin in areas where clothing may rub; under the cuffs or collar, for example.

Treatment advice should be sought from your GP or local pharmacist, but often an anti-fungal cream, Canesten, containing fluconazole, will be recommended.

Is there a vaccination available against ringworm?

Yes, a vaccine, called Bovilis Ringvac, is available to protect cattle against ringworm and to hasten recovery.

Two doses of vaccine, with dose volume dependent on the age of the animals being vaccinated, are required to be given by intramuscular injection with an interval of two weeks between them. Immunity is achieved by three weeks after the second dose.

Hygiene is also important to reduce the challenge from infectious spores deposited by previously infected animals.

Perhaps of greatest importance is to ensure the general wellbeing of your livestock and that they are well fed so their own innate immunity can act against any challenge.

JOURNAL : Farmers Weekly

Rapeseed prices will need to tick higher to encourage a bigger oilseed rape crop to be drilled this summer as growers watch their crops struggling in the current wet weather.

With a likely late oilseed rape **harvest** and wheat prices showing a rally towards £150/t and so becoming more competitive, the attractions of drilling rapeseed this summer will be tempered.

Rapeseed prices ex-**harvest** are currently trading at about £275/t ex-farm and, even with an oil bonus, prices will struggle to break through the psychological barrier of £300/t.

See also: Oilseed rape growers urged to be on alert for stem rot disease

Owen Cligg, trading manager at **co-operative** United Oilseeds, says growers' interest in the crop tends to fade if prices before oil bonuses are below £300/t.

"If we don't get a price rally or see yields up at **harvest**, then it is difficult to see the area showing a big increase this summer," he tells Farmers Weekly.

The oilseed rape area is estimated to have risen to 600,000ha this season from a Defra figure of 554,000ha last year, which represented its first rise after five years of falls and down from a record crop area of 756,00ha at **harvest** 2012.

Mr Cligg is pencilling in an average yield of 3.5t/ha from this year's **harvest** to give a crop of 2.1m tonnes, down from **harvest** 2017 when a 3.9t/ha yield from a smaller area gave a crop of 2.2m tonnes.

Late **harvest**

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Geoff Hall, commercial lead for north-west Europe at rapeseed breeder Monsanto, estimates that this year's **harvest** could be around one week later than normal after wet and cold weather this spring.

He believes the area will be little changed this summer, with any movement largely due to conditions at planting. The breeder controls about a third of the UK oilseed rape seed market with varieties such as Extrovert and Exalte.

"The weather and soil conditions at drilling will be critical, but the area in some parts of Europe, such as northern Germany, are down, which may encourage more plantings here," he says.

One area of expansion could be in Clearfield varieties, which are bred conventionally with tolerance to the herbicide imazamox, which has good activity against brassica weeds such as charlock and runc.

These varieties are particularly useful where brassica weeds are a problem, and the high erucic acid content of the weed seed can lead to rapeseed loads being rejected.

Mr Hall expects the Clearfield area to rise from 60,000ha to 80,000ha or even as much as 100,000ha this season. His group markets Clearfield varieties Imperial, Impression and Impressario.

Opportunist growers

Barry Barker, national arable seed product manager at agronomy group Agrii, says that about 5-10% of the rapeseed area is down to opportunist growers who drill more rapeseed if conditions at the time are favourable.

"The overall area could be as big as this year but not any bigger, and will probably be 90-100% of this year's crop, depending on conditions at drilling," he says.

Mr Barker adds the top varieties are set to be dominated by the hybrids Exalte, Extrovert and Alizze, and conventional varieties Elgar and Campus, with the Clearfield variety Imperial also set to be a good seller.

He expects Clearfield varieties could do well and take a 15% share of the market as growers worry about rapeseed loads being rejected for higher erucic acid content, especially as standards are being tightened up.

The European Union is reducing the food standard for rapeseed to a maximum 2% erucic acid from 5% previously, which could be implemented as early as this autumn, and Britain is likely to follow suit even after Brexit.

JOURNAL : Farmers Weekly

Pig and poultry units typically account for less than 0.5% of the total farmland sold across Britain each year.

The market is usually dominated by sales of grassland and arable farms, but three recent West Country launches have thrown up some rare examples.

Two free-range egg units and a pig farm have just hit the market across Somerset, Devon and Cornwall.

See also: Grassland values in England continue to climb

In the past three years just 11 pig and poultry farms have been publicly advertised, according to Savills.

The firm's director David Cross says they are often sold because their size has become uneconomical without expansion or reinvestment.

However, he adds that sales of such farms retain a significant amount of value and attract good levels of interest.

"One of the main drivers for interest is the established use because getting fresh planning consent for intensive livestock is becoming increasingly difficult," he says.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"Some are bought to knock down the existing buildings and rebuild bigger sheds – but that's expensive – while others may be considered for change of use.

"There's always demand because they're few and far between."

One egg laying unit is being sold by Richard Nancekivell, partner at DJ&P Newland Rennie, who says he has sold only two others in the past 20 years.

He agrees that securing planning permission is challenging and the expansion process is expensive.

"Alongside the planning issue there is the upfront cost to invest in a free-range unit, which can be considerable.

"To start from scratch is an investment for 20 years or more, which for many farmers isn't attractive.

"That's why farms like this don't come on the market regularly," he says.

New to market

Glenwood Farm at Okehampton was a high-yielding dairy unit before the owner spent more than £200,000 on buildings and equipment to move into free-range eggs in 2005.

He is now retiring and has put the 88-acre unit up for sale with DJ&P Newland Rennie at a guide price of £1.1m as a whole, or in four lots.

A large, clear span building currently houses about 12,000 laying hens, which range over 34 acres, with the balance put to grass with a small amount of woodland.

"It's phoenixed the farm from not making a living from dairy to being able to sustain a family from 12,000 hens," Mr Nancekivell says.

Across the Devon-Cornwall border Stags also has a 12,000-bird laying farm at Boyton near Launceston.

Dunns Farm has 71 acres of Grade 3 pasture, which is used as the hens' range and for sheep grazing.

Alongside the automated poultry shed, which operates a flat deck housing system, there is a range of modern versatile buildings currently used for lambing.

There is a six-bedroom farmhouse included in the sale, which is guided at £1.5m as a whole but could be sold in up to five lots.

Stags also has a 117-acre unit in Somerset for sale with housing for up to 4,000 pigs, with a guide price of £1.75m.

Tremlett Farm near Wellington puts Grade 1 and Grade 3 soils to combinable crops alongside the livestock enterprise.

Housing spans more than 41,000 sq ft and offers a variety of facilities for weaners through to finishers.

There are two houses – a modernised three-bedroom farmhouse and a bungalow let on a secure tenancy.

Stags farm agent George Alder said it was rare to sell a pig farm in Somerset, particularly one that was ready to move into and start farming straight away.

JOURNAL : Farmers Weekly

Sheep mortality hit its highest level for five years and possibly since records began in 2011, according to data from the National Fallen Stock Company (NFSCo).

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Unseasonably cold and wet weather meant adult sheep mortality rate during the 2018 season hit a five-year peak, 10% higher than the annual average at 150,000 head.

See also: 9 tips for minimising lamb production costs

Losses of lambs were 30% up on the UK average at 250,000 head – excluding animals recorded on a volume basis.

These animals, collected on a weight or volume basis increased by 10% more than the UK average over the past seven years.

<https://infogram.com/lamb-losses-by-month-1h9j6q8y1dkv6gz>

Since 2011, 69% of all lamb losses occurred between March and May, with 35% of animal mortality coming in April alone.

NFSCo, the not-for-profit community interest company responsible for the co-ordination of fallen stock collection and disposal in the UK added, that despite shortcomings in the accuracy of sheep mortality data, it was still the most reliable indicator available for animal losses.

“The data from this year show the 2018 lambing season was certainly the worst season since 2013, and probably ever, even factoring in a large allowance for the shortcomings of the data,” according to NFSCo chairman, Michael Seals.

“Lambing time was an extremely challenging time for sheep farmers and for the 100 or so collectors who NFSCo works with, and who worked hard to maintain their excellent service levels during some of the worst weather the UK has seen in years.”

This spring's adverse weather kicked in on 23 February when the “Beast from the East” rendered many areas of the country inaccessible due to strong winds and snow drifts.

Cold and rainy weather continued throughout what became the wettest recorded March for a decade.

Deserved respite for sheep farmers

“The beautiful weather we are experiencing now make it easy to forget the atrocious conditions experienced across the country during lambing time and this is a deserved respite for our sheep farmers,” said National Sheep Association chief executive Phil Stocker.

Mr Stocker commended the work of NFSCo and its contractors in the face of the alarming losses and significantly higher costs placed on our sheep farming businesses.

“If it wasn't for the current strong finished lamb prices, sheep farmers would be desperate and there will be many individuals that have not benefited directly and are not out of the woods yet,” added Mr Stocker.

JOURNAL : Farmers Weekly

Farmers looking to secure fuel ahead of the harvest season are being warned to monitor rising diesel prices following increasing tensions in the Middle East.

The cost of diesel has jumped by up to 2.5p/litre in a week after President Trump's decision to withdraw the US from an agreement to ease economic sanctions on Iran caused global oil prices to rise sharply.

The decision to force Iran, which can produce up to 2.5m barrels per day, about 3% of world demand, to keep its oil in the ground is the latest in a line of factors which have seen the price of Brent crude rise by 50% on the year.

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See also: Min-till system overhaul slashes diesel and slug pellet use

These include longer term issues such rises caused by the post-Brexit currency devaluation as well as short-term factors such as the Beast from the East in March, which caused prices to spike in March as demand increased for heating fuel.

By comparison, red diesel was costing as little as 35p/litre in December 2015.

The latest moves come as many farmers are looking to secure supplies ahead of the harvest season but merchants are cautious about advising forward buying more than 50% of the volume needed in case prices come back down.

Debbie Kay, sales office manager at northern fuel supplier Rix Petroleum, said the price of 2,300 litre of red diesel was 59.95p/litre (16 May), a rise of 2.5p on the week and 6p in the last month.

She said farmers looking to forward book fuel would need to commit to 30,000 litre, with the price locked at the day of ordering.

The fuel could then be delivered according to the customer's needs, with a delivery charge based on the volume they could take at each visit.

She advised buyers to stay in regular contact to keep up-to-date with price changes as there were signals that prices could fall slightly in the next few days.

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Anglian Farmers LPG co-ordinator Linda Carter said she had been taking an increased number of calls in recent days from farmers shopping around for prices.

She warned that the price of red diesel, as well as other fuels such as kerosene, were likely to continue to rise if uncertainty in the Middle East continued to concern traders.

Kerosene and red diesel prices normally follow each other, she explained, with kerosene typically 10p/litre cheaper than red diesel despite it being a more refined fuel.

Prices for a 5,000 litre delivery of red diesel to Norfolk were 59.45 at the time of going to press, up from 51.89p on 5 March, with the next price reduction available for customers buying 10,000 litre or more.

She advised farmers looking to forward buy fuel for the harvest season to hedge their bets by not committing to more than half of their requirements in the price falls.

Measuring fuel usage vital to analysing costs accurately

Monitoring fuel usage per operation has allowed one farmer to improve the accuracy of his enterprise costings.

Andrew Ward, of Glebe Farm in Lincolnshire, says fuel accounts for the biggest proportion of tractor running costs, something the vast majority of farmers don't realise.

It makes up 42% of the total running costs of his Case Quadtrac, outstripping even depreciation.

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He has his machinery operators record how much fuel a tractor is carrying as it enters and exits the field, the number of machine hours, and what job is being done.

This also allows him to apportion costs to each implement rather than just the tractor and make a more accurate assessment of whether each visit to a field is cost effective.

"It gives operators a real interest in the job by making them feel part of the business," explains Mr Ward, saying that they are always trying to improve their figures compared with the previous visit.

JOURNAL : Farmers Weekly

Dairy farmers have been urged to move towards remote fault analysis for high-tech milking equipment in a bid to reduce costly downtimes in modern parlours.

Speaking at a Milking Equipment Association conference in Birmingham dairy technology specialist Ian Ohnstad said breakdowns were increasingly costly as herd sizes continued to increase.

"The average UK herd size is now over 140 cows so breakdowns have greater financial implications as well as causing significant disruption to daily routines," Mr Ohnstad from The Dairy Group, told delegates.

See also: Dorset dairy farmers build bespoke outdoor parlour

Those routines are also tighter as the larger herds and high yields limit time between milking, putting pressure on achieving a consistent, parlour performance, he added.

Mr Ohnstad said on many large-scale, high-tech operations there was not the capacity in the system to allow for a breakdown so specialist dairy farmers required a new approach to milking machine maintenance.

The average UK herd size is now over 140 cows so breakdowns have greater financial implications as well as causing significant disruption to daily routines Ian Ohnstad, dairy technology specialist

Remote consultations

"While there will always be an essential need for an on-farm parlour-testing service, farmers and technicians need to embrace innovations like remote support," he said.

"Remote consultations offer a great opportunity for future efficiencies and the need for farmers to utilise data capture to improve parlour performance," Mr Ohnstad stressed.

But technicians would need to have access to milking information, parlour and component performance – to analyse, diagnose and resolve problems, without a physical visit.

Act on data

So the process needed farmers to embrace a mindset that analysed and acted on the data produced by modern technology, said Mr Ohnstad.

He also said scheduled annual dynamic tests were undervalued in the UK but could help make parlours more efficient by identifying issues before they became problems.

The implications of a poorly operated machine are significant. Teat damage has health and welfare implications, can affect milk quality and also increase mastitis incidence, Mr Ohnstad warned.

Underlying problems can affect parlour running costs, which vary hugely between farms.

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"Running costs range from 0.1p/litre to 0.87p/litre according to Kingshay data and farmers could make noticeable savings by simply improving the efficiencies of their parlour," he added.

JOURNAL : Farmers Weekly

Discount retailer Aldi has retained its title as the best UK supermarket for its treatment of suppliers, according to a survey by the groceries code adjudicator (GCA).

Iceland remained on the bottom of the pile of the 10 retailers surveyed, with 14% of direct suppliers to the retailer saying it rarely complied with the GCA code of practice.

The Groceries Supply Code of Practice (GSCP) outlines the principles of fair dealing between UK supermarkets and direct suppliers, including regulations around fair payment times, supply agreements and rules around deductions.

Of the 911 direct suppliers surveyed, 43% stated they had experienced issues with supermarket buyers in the past 12 months.

See also: Selling farm products online – what you need to know

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The three most common complaints from suppliers were delays in payments, reported by 19% of suppliers, no compensation for forecasting errors or not preparing forecasts with due care, experienced by 17% of those surveyed and not meeting duties in relation to delisting, affecting 13% of suppliers asked.

Asda came last of the UK's four largest supermarkets – Tesco, Sainsbury's, Asda and Morrisons – in terms of producer relations.

Of those direct suppliers surveyed, 12% disagreed with the statement that Asda conducted trading relationships in good faith and without duress, with a further 5% adding they strongly disagreed with the statement.

Tesco took the most improved title of all 10 retailers, with 36% of suppliers indicating the UK's largest retailer had improved its practices over the past 12 months.

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The performance of the **Co-op** was indicative of the current GCA investigation into the UK's sixth-largest supermarket, finishing one place above bottom with 11% of suppliers stating the retailer had rarely complied with the code in the past year.

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The GCA announced in March it would be investigating the Co-op for breaching the GSCP in areas including delisting suppliers without adequate or any notice periods and the introduction of charges without reasonable notice between early 2016 to at least summer 2017.

Overall, nine out of the 10 retailers improved on their GSCP compliance compared with 2017, with the exception of the Co-op.

JOURNAL : Farmers Weekly

A review into how £190m of EU subsidies was shared between farmers in Scotland and the rest of the UK has been delayed.

The “uplift” money was allocated by the EU because of Scotland's low payment rate per hectare – to bring it up to the EU average payment level.

However, rather than the money being distributed to Scottish farmers, some £160m was paid by the Treasury to farmers in the rest of the UK.

See also: Scottish hill farmers denied CAP money, says Ewing

The Scottish government argues all the money should have gone to Scotland.

To date, the UK government has only allocated about £30m to Scotland, it says, with the rest being distributed across the UK.

Scottish rural cabinet secretary Fergus Ewing said: “This delay is completely unacceptable.

“Scottish hill farmers are owed £160m, which the UK government has repeatedly ignored.

“I have been clear throughout that the money was earned in Scotland, and quite frankly should be returned to Scotland.”

Precedent

Mr Ewing said Scotland's demand for the money was about setting a precedent for future agricultural funding rather than being against farmers in other parts of the UK.

The lack of progress was disappointing, particularly at a time when the Scottish government was preparing to enter “complex and critical” future funding discussions with the UK government, he said.

“Having already secured the review and agreed its independent chairman, it is disappointing to learn the review is being kicked into the long grass.”

In discussion

Defra says it is in discussion with HM Treasury about the situation.

It says the review must be considered alongside wider funding implications in Scotland, Wales and Northern Ireland as the UK leaves the EU.

The government has pledged to ensure that all parts of the UK are treated fairly and their circumstances taken into account.

JOURNAL : Farmers Weekly

Strengthening dairy markets mean producer milk prices could hit the 30p/litre milestone in the next three months, as wholesale butter and cream prices continue to soar.

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Most UK dairy farmers will get at least 28p/litre in July, the highest price for the month since 2014, driven by restrained supply off the back of prolonged wet weather, rendering the spring flush almost non-existent across much of Europe.

See also: Focus on fertility and forage lifts dairy cow performance

Where is the price heading?

Prices for August and September should increase by up to 2p/litre across the two months for those on liquid milk contracts and more for those producing cheese, according to dairy market analyst Chris Walkland, as long as markets maintain current momentum.

"The outlook is very good for the next few months - a finely balanced very good, mind," says Mr Walkland.

However, he adds that producers should remain cautious should the price exceed the 30p/litre mark.

"If it does [go beyond 30p], don't go mad and up your volume because before you know it, your price will be down at 26p/litre again.

Chris Walkland: Four factors affecting milk prices to August

UK volumes – Volumes are very weather-dependent this year. Right now, it's a mixed picture, with some great weather and good first and second cuts. However, some parts are on a knife edge because of the dry weather.

European volumes – They're ramping up in France and Germany now; with political meddling over EU SMP intervention stocks and in the UK over milk supply contracts presenting potentially the biggest challenge since deregulation.

Recruitment – A couple of years ago no buyers wanted you. Now, in many milk fields, the processors are all loved up again. They want you and your milk.

Political pressure – Producers need to make a case for farming. They might not get anywhere, but it's definitely worth a try.

"What you want is a long-term stable, high price, not the maximum price," says Mr Walkland.

Further milk price increases would mean breaking through the 28p/litre barrier, which Mr Walkland says has become a glass ceiling for retailers.

"I think the retailers have it in their minds from the downturn that 28p is a fair milk price, because back then they were told that 28p should be "the fair milk price," and they agreed," he says.

"That doesn't mean the processors won't pay more than that, because they are still getting a good income from cream. If a producer is not making money at current prices, then they need to be in something other than milk," says Mr Walkland.

John Allen: Benchmarking can make 5p/litre savings

Kite Consulting's John Allen is currently running the R500 benchmarking programme for 400 Arla producers. The process can save money and improve wellbeing, he says.

Adopt the "Brailsford approach", achieving small incremental results across several areas over two to three years.

Share ideas with a group and emulate what works for the most successful producers.

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Have the confidence to ramp up output sustainably. Typically, the Arla groups increase output by 5-10% a year with little additional cost. This is where our producers get at least half of their improvement.

The aim is to put owners in control of their businesses, empowering them, which makes them mentally more resilient. What matters most is that they get to enjoy their business since they make money in good times and get through bad times without suffering.

Wholesale market performance

Wholesale markets have been buoyant in recent weeks, with UK wholesale cream and butter prices averaging 13% and 11% increases in May to £2,350/t and £5,180t, respectively – both one-fifth higher value than year-earlier levels.

Rising butter prices have driven increases in the Actual Milk Price Equivalent (Ampe) dairy market indicator, which stood at 33.1p/litre for May, its highest level since September 2017.

Milk for cheese value equivalent (MCVE), an indicator of cheese values to a processor before transport costs, hit 32.3p/litre, its highest level for six months, due to strengthening values of mild cheddar and whey butter.

Mr Walkland says if there is anyone not making money at these prices now, then they need to do something else.

Is now the time to spend?

Dairy consultants are urging farmers to take a longer-term view of prospective milk prices before getting the cheque book out - farmgate prices have only exceeded 30p/litre in five of the past 36 months.

The key for producers is to have a clear idea of their financial position before spending, says Farm Consultancy Group dairy business consultant Andy Dodd.

"It's crucial to take a 12-month view of where cashflows are likely to be, rather than spending when the milk price is up," says Mr Dodd.

"Now is the time to examine variable costs such as feed, breeding and vet's bills. Producers should be reviewing these costs twice a year and working with professionals to ensure they are getting the best price and best quality for their money."

Now is also the ideal time to make sure stock numbers are optimised to fit individual systems, and excess heifers should be put into beef to improve cashflow.

Is now the time to switch buyer?

"We are living in a volatile world, so it is important producers seek long-term stability where they can.

"More and more milk buyers are looking to recruit, so it is crucial farmers do their research and check if moving contracts would fit their current system."

Mr Dodd recommends not just examining the headline price for this month, but to look at a processor's long-term milk price as well as how they deal with other producers.

"Speak not just to one or two other suppliers, but six or seven, asking questions about how the processor communicates or deals with things like bonuses before making a final decision."

JOURNAL : Farmers Weekly

A nationwide series of roadshows highlighting the threat of scab in UK sheep flocks will take place later this summer.

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The roadshows will feature sheep disease specialists, consultants and dipping contractors and are open to farmers, vets and any suitably qualified persons (SQPs).

See also: Farmers Weekly academy on scab in sheep

Each regional event will feature different speakers who are all experts in sheep scab control.

Speakers include:

Peter Bates (specialist veterinary entomologist)

Lesley Stubbings (independent sheep consultant)

Neil Fell (nationwide mobile plunge dipping contractor)

The speakers will discuss the sheep scab parasite, the effect of the disease and control options, including mobile plunge dipping.

There will also be an update on resistance to sheep scab treatments and a forum to share ideas on how to tackle the disease.

All of the events have been organised by animal health product manufacturer and distributor Bimeda UK.

The firm is urging anyone who would like to attend to register with the appropriate regional contact (see table below).

Sheep scab awareness events

Date

Time

Venue

RSVP date and contact

24 July

10:30am

Penrith Auction Mart, Cumbria

17 July mmarron@bimeda.com

25 July

10:00am

St Boswell's Mart, Scottish Borders

16 July walker@bimeda.com

26 July

10:00am

Lochter Activity Centre, Aberdeenshire

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16 July ewalker@bimeda.com

31 July

11:00am

Hereford Market

23 July fmoore@bimeda.com

1 August

11:30am

Launceston Rugby Club, Cornwall

18 July dmead@bimeda.com

2 August

6:00pm

Ruthin Farmers Auction **Co**, Denbighshire

26 July rmallet@bimeda.com

JOURNAL : Farmers Weekly

Throughout the 2018 events season, we'll be bringing you regional coverage of the UK's best-loved agricultural and countryside shows.

These events showcase the best of British farming and food, while also serving as a great social occasion and an opportunity for consumers and the public at large to learn more about the agriculture industry.

See also: What's next? Options for farmer's children after leaving school

Royal Cornwall Show

Nearly 120,000 people flocked to the Royal Cornwall Showground near Wadebridge between 7 and 9 June.

High-profile guests included Their Royal Highnesses the Prince of Wales and Duchess of Cornwall, Cornish rugby hero Phil Vickery and pop-star-turned-farmer JB Gill.

Show-goers weren't treated to much of Cornwall's sunshine – conditions were mostly overcast and cool, with temperatures peaking at 21C on the final day.

Among the attractions were the Cavalry of Heroes, Devon and Cornwall Police dog team, the band of HM Royal Marines and the RAF Falcons parachute display team.

The show also enjoyed an excellent entry of cattle, sheep and pigs and a good turnout of horses in the equine section.

If you have an agricultural show taking place in your area and think it should be covered by Farmers Weekly, let community editor Oli Hill know by emailing oli.hill@reedbusiness.com

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

This year's Royal Highland Show welcomed 190,000 visitors over the four days, including Defra secretary Michael Gove, secretary of state for Scotland David Mundell and Fergus Ewing, the Scottish government's cabinet secretary for rural economy and connectivity.

The sun shone on the Ingliston showground for the celebration of farming, food and rural life, and, as always, the livestock competitions were fiercely contested.

In the beef and sheep rings, continental ladies led the way, while a husband and wife team triumphed in the dairy interbreed championship.

See also: More from the Royal Highland Show

Dairy

The dairy interbreed results gave the Laird family from Peebleshire cause for celebration, with husband and wife Colin and Izzy Laird accepting the red and blue rosettes for their Jersey and Holstein cows, respectively.

It was the Jersey, Fourcrosses Anthony Carozza, who was tapped out as champion and awarded the Queen's Cup, with judge Mr Willie Whiteford of Carlisle calling her "an extreme quality Jersey".

He praised the champion for "all the qualities a Jersey should have – angularity, milkability and wearability".

Sired by Fourcrosses Anthony, she is currently giving 39 litres a day and gave 10,200 litres in her last lactation.

This success follows the September 2013-born third calver's breed championship win at UK Dairy Expo in March.

Having calved at Christmas time, this will be her last show of the year, but the Lairds plan to bring her back to the Highland next year.

Anthony Carozza is one of four Jersey cows in the Laird's 550-head milking herd. The other 546 cows are Holstein and it was one of those that took the reserve spot – Blythbridge Jessy D2 Cou, shown by Mr Colin Laird.

The second calver was born in October 2014 and sired by Maple-Downs-IGW Atwood. She is currently giving 52 litres a day having calved in January and she produced 11,100 litres in her last lactation.

She won the breed championship at the Royal Highland Show last year too, but her next show appearance is yet to be decided.

Beef

The overall beef champion title went to a Limousin heifer, Grahams Niaomi from Robert and Jean Graham.

The January 2017-born homebred heifer is out of Grahams Coffee and by Claragh Franco. She is full sister to the 40,000gns Grahams Lorenzo and 26,000gns Grahams Nikita.

Shown by Jennifer Hyslop on the day, Niaomi is one of 50 pedigree cows at Graham's Family Dairy, where they milk 283 pedigree Jerseys.

This is her second red rosette having won breed champion at Stirling earlier this year and she will now go on to compete at the Great Yorkshire and Royal Welsh shows.

Judge Mr Tom Arnott of Kelso tapped out Niaomi ahead of the 2014-born Charolais bull Harestone Jaquard from R and N Barclay, Insch.

Jaquard, led in the ring by Robert Marshall, was imported from France about a year ago, purchased for an undisclosed figure in a private sale.

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This is the first time he has been shown in the UK and will now head back to the farm to work as a stock bull.

Sheep

Of the 24 breed champions in the sheep ring, it was the Beltex gimmer Woodies Citygirl whose class and commercial attributes caught the eye of judge Mr Jimmy Sinclair of Heriot.

Sired by Carrigans Bob Lee Swagger, a grandson of the great Leapfrog, and out of an imported ewe, she was bred by Stuart Wood of Woolhillock, Skene, Aberdeenshire.

Mr Wood who has 32 Beltex and 10 Dutch ewes said it was a "dream come true" to win the breed and interbreed.

A one-hit wonder, this is Citygirl's first time out and she will now be retired before being flushed.

In reserve was the Bleu du Maine gimmer from William Baillie, Thankerton, who runs 30 pedigree Bleu du Maine ewes alongside a 200-head Holstein dairy herd.

She is out of a homebred ewe and sired by Maximum Obama, who was supreme champion at the annual Bleu du Maine Society show at Carlisle in 2016. Obama was purchased by Mr Baillie from Sally Shone for 2,000gns.

JOURNAL : Farmers Weekly

The Rural Payments helpline was down for more than two hours on Monday (14 May) on the eve of the deadline for BPS 2018 applications.

In a brief statement posted online on Monday (14 May), the Rural Payments Agency (RPA) reported the helpline was "experiencing technical problems" and those seeking assistance may not be able to get in contact.

The agency added: "We are working to resolve these problems and will publish further updates as soon as we can."

See also: RPA opens six drop-in centres across England

But two hours later, at 11.15am, the RPA added a notification on its Twitter page to say the helpline was up and running again and the problems had been resolved.

Our Helpline is now back to normal. Though as expected ahead of tomorrow's BPS deadline, we are experiencing a high volume of calls. Please check the guidance before queueing. #BPS2018 #BPSONline @NFUtweets @CLAtweets @IAGSA_UK @DefraFAS pic.twitter.com/iccwvQCLRE

RPA (@Ruralpay) 14 May 2018

The problems with the helpline come at a crucial time for farmers yet to submit their 2018 Basic Payment Scheme (BPS) application.

The deadline is midnight on Tuesday (15 May) and after that farmers are penalised with deductions from their BPS money.

Farm leaders have warned that completing the application will take longer than in 2017 due to major errors in the mapping data of the new hedges layer tool.

Farmers Weekly contacted Defra for more information about the helpline's technical problems, but Defra declined to comment.

Six drop-in centres across England which farmers and landowners can access to submit their 2018 Basic Payment claims are open on Monday (14 February) until 5pm at Carlisle, Reading, Exeter, Newcastle-upon-Tyne, Workington and York.

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On Tuesday (15 May) – the deadline to submit claims before deductions can be imposed – the centres will be open until 10pm.

The RPA urged farmers to read the BPS 2018 guidance in full on Gov.UK and only call the helpline on 03000 200 301 if they still have an issue.

JOURNAL : Farmers Weekly

The Rural Payments Agency says it is prioritising efforts to settle all remaining basic payment scheme claims as soon as possible after claiming it has beaten the EU payment target.

The RPA says it has paid more than 98% of customers more than £1.45bn.

See also: Essential tips for basic payment claims

This is equivalent to almost 97% of the total amount owed to farmers and surpasses the EU target for the agency to pay 95% of all monies by the end of June.

An RPA spokesperson said the agency was now writing to all remaining unpaid customers to explain why they had not been paid yet – and to provide them with a named contact who would keep in touch until their claim was completed. It said: “Typically claims with a greater degree of processing complexity – such as inspection, complex mapping, and larger claims – do to take longer to process and pay.”

Checks required

The spokesperson added: “We are required by the EU to carry out certain checks before we can make payments.”

But the NFU said it would be pressing the RPA to improve the pace of payments.

The agency had improved its communications but there had been little if any improvement between 2016 and 2017 in the speed of payment delivery, it warned.

NFU vice-president Stuart Roberts said: “It is disappointing that a number of people have still not seen their payments by now and this will be having real impacts on farms today in terms of cash flow and business planning.

Frustrating wait

“Separately, it is frustrating to know the RPA still has work to do on previous years payments when we really should be looking for them to target their full efforts and resources towards delivering a better performance for the 2018 scheme.”

In Scotland, more than 95.24% of direct payments have now been made.

This represents more than £387m of Pillar 1 payments for the 2017 scheme year being paid to some 17,150 eligible farmers and crofters ahead of the 30 June deadline.

JOURNAL : Farmers Weekly

Almost 100 sheep and 200 lambs have been stolen from a farm in Somerset, in what is believed to be one of the biggest single livestock rustling thefts ever recorded.

Sometime between overnight Thursday 10 May and Friday 11 May, rustlers raided the land at Steart Marshes, near Bridgwater.

In total 92 ewes and 184 lambs were taken, of a mix of breeds, although the majority are Pedigree Easycare ewes.

See also: Fleeced – police failure to tackle sheep rustling exposed

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Avon and Somerset Police described this breed of ewe as “very unusual” and should easy to spot, especially if they’re being held in a field.

Pedigree Easycare ewes often look skinny and or bald as they shed their wool once it grows a few centimetres long. Therefore, fields in which they are kept will be full of the wool the sheep have shed.

‘Huge loss’

Appealing for information, Tony Freeman, a beat manager from the Somerset force’s rural crime team, said: “This is a huge loss for the farmer as it’s estimated the sheep and lambs are worth between £18,000 and £20,000.

“The sheep are not only unusual in their breed but they are also marked on their backs in green, numbers range between one and 400.

“If you see sheep or lambs matching this description in the area, or have information on their whereabouts please call 101 quoting the reference 5218103055.”

Anyone buying livestock is advised to check the provenance and respective paperwork relating to the stock in question.

JOURNAL : Farmers Weekly

Agriculture needs a culture change to make safety a high priority following a recent spate of on-farm deaths, industry leaders say.

In the past four weeks, five people have been killed while working on UK farms. The latest was father-of-two Hugh Henry from County Derry, who died following a quad bike accident on Saturday afternoon (12 May).

According to official government statistics, 388 people have been killed on British farms in the past 10 years, and thousands more have suffered serious injuries.

Agriculture accounts for up to 20% of all reported work-related fatalities in Britain.

See also: ‘I lost my leg in a farm accident’ – a farmer’s story

Last month the Farm Safety Partnership (FSP) set a target to reduce the number of farming fatalities by at least 50% by the summer of 2023.

FSP chairman and NFU vice-president Stuart Roberts believes farming needs to see a culture change in order for safety to become a high priority.

“Too many of us take too many risks, think we are indestructible and say, ‘phew, I got away with that’,” he said.

“Change needs to come from within the industry and everyone has a part to play. If you see something that isn’t safe, you should not be afraid to say so.”

Mr Roberts said safety should be part of everyday conversations in farming and taken into consideration during every job.

He is determined that agriculture will not take 20 years to make the impressive progress already achieved in other industries, such as construction.

Northern Ireland

In Northern Ireland, accidents on farms that require medical attention happen 100 times a month, according to the FSP, which recently launched first aid training courses tailored to farming families and employees.

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This week the Health and Safety Executive for Northern Ireland (HSENI) is concentrating on "Keeping Farming Families Safe" at the Balmoral Show.

HSENI chief executive and FSP chairman Keith Morrison said: "Unfortunately many tragic accidents could have been avoided by planning ahead and taking actions to manage the dangers."

New safety measures

Meanwhile, Mairead McGuinness MEP, a vice-president of the European Parliament, has stated that mandatory farm safety measures may be included in CAP reform proposals.

She said it was unacceptable that farmers risked life and limb in carrying out their daily tasks.

"Pressure on farmers to do more for less and to farm alone and under pressure leads to situations which may result in accidents," the MEP said.

Farming retailer Mole Valley Farmers is launching a new health and safety initiative, "Take a Moment", at this week's Devon County Show, with leaflets, educational material and car stickers at the company's stand.

From 1 June, all of its stores will have a section devoted to health and safety literature and equipment, such as goggles, dust masks, steel toe-capped boots and high-vis clothing.

JOURNAL : Farmers Weekly

Scientists have produced pigs that can resist porcine reproductive and respiratory syndrome (PRRS) by changing their genetic code.

PRRS is an endemic disease and costs the pig industry about £1.75bn/year in lost revenue in the US and Europe alone. There is no cure for the virus, although vaccination is available.

Scientists at the University of Edinburgh's Roslin Institute produced cells resistant to the virus in lab tests last February.

But for the first time they have now exposed live pigs to the virus. They found none of the animals became ill when exposed to the virus, with blood tests finding no trace of infection.

About porcine reproductive and respiratory syndrome

The disease causes breathing problems and deaths in young animals and if pregnant sows become infected, it can cause them to lose their litter.

The virus is transmitted between pigs through nose-to-nose contact and via semen and faeces.

GM regulations

Christine Tait-Burkard, of the Roslin Institute, said the results were "exciting" but conceded it would may take several years before consumers were eating bacon sandwiches from PRRS-resistant pigs, due to regulations.

Genetically modified animals are banned from the food chain in Europe.

It is not clear what regulations would apply to gene-edited animals, however, as the approach is different.

GM techniques have been controversial because they can involve introducing genes of other species into an animal.

In contrast, gene editing speeds up processes that could occur naturally through breeding over many generations, without introducing genes from other species.

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She said: "First and foremost, we need broader public discussion on the acceptability of gene-edited meat entering our food chain, to help inform political leaders on how these techniques should be regulated.

"We also need to carry out longer-term studies to confirm these genetic changes do not have any unforeseen adverse effects on the animals."

If these studies are successful and the public are accepting of this technology, Dr Tait-Burkard said they would work with pig breeding companies to integrate these gene edits into commercial breeding stocks.

About the study

The virus infects pigs using a receptor on their cells' surface called CD163.

Researchers at the University of Edinburgh's Roslin Institute used gene-editing techniques to remove a small section of the CD163 gene.

They focused on the section of the receptor the virus attaches to, leaving the rest of the molecule intact.

The team collaborated with Genus, a leading global animal genetics company, to produce pigs with the specific DNA change.

Other groups have used gene editing to create PRRS-resistant pigs by removing the whole CD163 receptor.

Removing only a section of CD163 allows the receptor to retain its ordinary function in the body and reduces the risk of side effects, the researchers say.

This research, co-funded by the Biotechnology and Biological Sciences Research Council and Genus, is published in the Journal of Virology.

JOURNAL : Farmers Weekly

The Scottish Parliament has voted against UK Brexit legislation it says would restrict Holyrood's powers over key areas including agriculture, fisheries and the environment.

It says the current bill would allow the UK government to prevent the Scottish Parliament from legislating in key devolved areas – including farming – for up to seven years.

The Scottish Parliament voted to reject the EU Withdrawal Bill on Thursday (15 May).

See also: Scots and Welsh warn against farm Brexit 'power grab'

Following the vote, Scotland's Brexit secretary, Michael Russell, urged the UK government to remove the parts of the bill that constrain devolved powers.

He said: "In line with the clear majority of people in Scotland, we don't want to leave the EU and we are still working to find a way to secure as much as we can from our present relationship."

'Undermining devolution'

Mr Russell said the Scottish government accepted legal preparation for Brexit was required, but the UK government's EU Withdrawal Bill was an attempt to undermine devolution.

And he accused the UK government of wanting to "take a power to restrict the competence" of the Scottish Parliament and then exercise it against the wishes of the Scottish people.

"The Scottish Parliament has now said overwhelmingly that this attempt to undermine devolution is unacceptable," Mr Russell said.

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"The UK government cannot ignore the reality of devolution or try to drown out what this parliament says. They cannot pretend that no motion has been passed."

The Welsh Assembly gave its consent to the bill on the same day – although Welsh nationalists Plaid Cymru continue to maintain it is a power-grab by Westminster.

'Considerable offer'

Before the vote, Scottish secretary David Mundell said the UK government had worked hard to secure the support of the Scottish Parliament for the bill.

The UK government had put a considerable offer on the table that would see the vast majority of devolved powers automatically flow from the EU to Belfast, Cardiff and Edinburgh, he said.

"Freezing" a small number of specific policy areas while new arrangements were designed and implemented would give essential certainty to businesses, said Mr Mundell.

He added: "We are clear our approach fully respects devolution, as the Welsh government has confirmed.

"We still hope the Scottish government will come on board, even at this late stage. Our door remains open."

JOURNAL : Farmers Weekly

Doors will close at Scotland's only pig processing plant at midday (26 June), after stocks of carbon dioxide gas necessary for the stunning process run out.

The Brechin abattoir in Angus, Scotland, will become the latest victim of the continent-wide carbon dioxide shortage that has hit the food and drink sector over the past week.

See also: Pig and poultry producers face slaughtering delays

Brechin, run by Quality Pork Limited in collaboration with processing giant Tulip, processes about 6,000 animals a week. It is seeking a temporary derogation from Quality Meat Scotland (QMS) to allow pigs to be slaughtered in Northern England, but still be labelled as Scottish pork.

The derogation was used by the plant last August after it was closed for four months following a major fire at the facility.

Meat processors and the wider industry were suffering from a lack of information, according to Tulip head of corporate communications Nick Purnell.

"We're getting the same information as everyone else. An ammonia plant that was closed is expected to come back online by 2 July, but it will be some time before the supply chain is fully replenished."

Mr Purnell said Tulip's procurement team were working round the clock to secure what little stocks of carbon dioxide were available to the UK and that animal welfare remained the highest priority for the company.

"We're urging producers to maintain open lines of communication with us and to continue to work to ensure high standards."

Creaking at the seams

Abattoirs around the UK were "creaking at the seams" as carbon dioxide supplies continued to dwindle, according to British Meat Packers chief executive Nick Allen, who added that several had just days of supply remaining.

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"It's getting trickier for our members to source carbon dioxide and we're likely to be in the same situation for the rest of the week," he said.

Mr Allen added that while some plants could fall back to secondary, electronic stunning systems, many had no plan B and would have to reduce throughputs if the situation did not improve soon.

"If carbon dioxide supplies don't start coming through soon, we will start to see quite a substantial slowdown in production," he said.

There are also concerns over animal welfare as the supply chain gets backed up and more and more stock is left on farm.

Warm weather forecast for the next two weeks has compounded the issue, with demand for barbecues and beer expected to peak and with animals requiring extra space to remain cool.

Defra response

Defra has stated it is working towards finding a resolution to the crisis and is consulting with the industry to see if further action needed to be taken.

"The government is aware that there are reports of a carbon dioxide shortage affecting the food and drink sector, and that industry is working to find a solution," said a Defra spokesperson.

"While this is an issue for industry, the government is in contact with the relevant companies and trade associations, including those within the food and drink sector and main carbon dioxide suppliers."

JOURNAL : Farmers Weekly

Industry leaders in Scotland are piling the pressure on politicians to provide answers about future arrangements for agriculture after the UK leaves the European Union.

With just nine months to Brexit, questions remain about future funding for farming, trading arrangements with the EU and ongoing access to overseas labour.

See also: Scotland plans cap on direct payments post-Brexit

Speaking at the Royal Highland Show, NFU Scotland president Andrew McCornick warned: "Crucial decisions that will affect the well-being of the nation's farmers, crofters and food and drink sector remain in limbo.

"Our primary producers are having to take business decisions now that will not come into fruition until well after the UK has left the EU and there is growing frustration and anger that they are making those decisions in a void."

Financial package

Many themes in the Scottish government's Stability and Simplicity consultation, which proposes a five-year transition for farming, chimed with the union's views, said Mr McCornick.

But Scotland's ability to deliver a policy that worked for farmers would depend on the financial package allocated by Westminster, he warned.

Mr McCornick said: "Budgets based on existing CAP spend are guaranteed to the **end** of this parliament. We need reassurances on budgets beyond that period and confirmation that Scottish agriculture's share will be ring-fenced."

Scotland's farming industry has an excellent relationship with other parts of the UK – but free and frictionless trade with the EU remains crucial to food producers.

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Trade arrangements

The importance of securing preferential and beneficial trade arrangements with the EU – a major trading partner – continued to go unaddressed, said Mr McCornick.

On labour, almost every soft fruit, flower and vegetable producer in Scotland was experiencing difficulties recruiting employees, with ongoing reports of permanent and seasonal staff shortages.

With post-Brexit immigration arrangements unknown, alongside the lack of a seasonal workers scheme, Scottish growers were finding it harder to recruit much-needed permanent and seasonal staff.

JOURNAL : Farmers Weekly

After months of rain, the sun's out, the soil's dried and the wheels of machines are beginning to roll.

It's all going so well until you hear a snap, or notice a crack, or a light appears on the dash, and everything comes to a grinding halt until the part can be replaced.

See also: Massey parts up for grabs as dealer has final clear out

Part searching can often be a time-consuming process, so a new online parts store – buyanypart.co.uk – has been launched as a go-to platform which allows farmers to browse more than 500,000 parts for any type of machine in one place, rather than trawling the web and phoning suppliers to compare prices.

Finding the part can be done by entering the part number or by clicking on one of the manufacturers and scrolling through the listed items available.

Results of both original and replacement parts matching the exact model are shown and, if there's no part available, the company can help with further searching.

The service is available every day of the year with prices quoted including delivery and VAT.

JOURNAL : Farmers Weekly

A new, mandatory sheep carcass classification system is being proposed by Defra, which will run on similar lines to the grid systems that have existed for cattle and pigs for many years.

According to a consultation launched on Wednesday (30 May), qualified assessors working in abattoirs will use a standard grid to classify sheep and so determine how much a producer should be paid.

See also: 5 sheep crushes on test: Which handles best?

Defra farm minister George Eustice described the idea as “an important step in improving fairness for sheep farmers and ensuring they get a fair deal for their excellent produce”.

According to the consultation, there are two options – to either adopt the Europ grid system already established by the EU or, post Brexit, develop a bespoke system for England to take account of future market opportunities and needs.

“If we implement a bespoke system, we would consult again on the specifics of the system before imposing mandatory sheep carcass classification,” says the report.

Productivity

According to the consultation, greater transparency will lead to productivity improvements, as producers will better understand the classification of their animals and make the necessary adjustments.

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There are about 151 abattoirs registered to slaughter sheep in England, though just 34 account for more than 90% of all throughput.

A number of these already operate voluntary carcass classification systems.

The plan is to exempt smaller abattoirs – those handling less than 1,000 sheep a week – from the requirement to operate a classification system.

Commercial abattoirs taking part would be obliged to report deadweight prices back weekly to the AHDB, which would publish the aggregated information.

The government is also considering requiring them to publish other charges, such as the cost of cleaning animals, classification charges and insurance.

Reaction

The National Sheep Association (NSA) says it welcomes the consultation. “Having a mandatory system is the only way to get everyone to act,” said NSA chief executive Phil Stocker.

“It will hopefully put an **end** to things like rounding down of weights or random shifts in carcass grades.”

Exempting some smaller abattoirs also made sense. “The small abattoir sector is under severe pressure, so we don’t want to add to their costs. Besides, they have a very different relationship with their suppliers.”

Livestock Auctioneers Association executive secretary Chris Dodds also supported the principle of greater transparency, adding the sheep carcass classifications should be sent back to marts, who could then feed it on to farmers.

Norman Bagley of the Association of Independent Meat Suppliers said developing a “bespoke” system for England, post Brexit, could be useful if it involved building in additional criteria, such as “eating quality” to help differentiate UK lamb from cheaper imports.

JOURNAL : Farmers Weekly

The shocking extent of labour exploitation and modern-day slavery in agriculture has been laid bare in a new report by the Gangmasters and Labour Abuse Authority (GLAA).

Drawing on its extensive work with victims and offenders, the GLAA has concluded that the agricultural industry is a “high-risk” sector for exploitation and abuse of seasonal workers, including poor wages and working conditions.

The report, The Nature and Scale of Labour Exploitation Across All Sectors Within the United Kingdom, paints a bleak picture when it comes to labour abuses in the agricultural sector.

See also: NFU's 10-point plan for attracting the best farmworkers

The Modern Slavery Act 2015 categorises offences as holding a person in a position of slavery, servitude, forced or compulsory labour, or facilitating their travel with the intention of exploiting them soon after.

In the UK, the number of modern slavery cases rose by 35% from 2016-17, with agriculture and the food industry among the worst sectors. An estimated 10,000 to 13,000 people are being exploited in the food and farming industry.

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Horrific conditions

In agriculture, some workers – mainly Romanian and Bulgarian men in their 20s and 30s – are putting in 15-hour days in “horrific” conditions for less than the minimum wage.

Workers from eastern Europe, especially Poland and Lithuania, are also regularly being exploited.

Abused workers can be expected to work 40-60 hour weeks, sometimes working seven consecutive days, completing double shifts with insufficient breaks in between.

The industry relies heavily on licensed gangmasters to supply manual labour, especially for the vegetable, fruit, flowers, animal production and poultry sectors.

But some licence holders have been subject to scrutiny concerning possible serious labour exploitation, the report says.

Criminal groups are trafficking illegal workers from abroad and undercutting licensed gangmasters, the report finds.

Labour users are being approached by companies and individuals, including those that are not licensed, who are offering to supply labour for £50 to £100 per worker, or a charge rate of 20%.

In the UK, gangmasters are charging seasonal workers up to £50 for work during the flower and vegetable and fruit picking seasons.

Caravan parks

Seasonal workers are regularly accommodated at caravan parks, with many sites housing a large number of workers.

However, the conditions at some sites are described as “horrific”, with farmworkers expected to live in overcrowded and unsanitary conditions.

Complaints have been made of some supervisors being abusive and violent, with a small number of assaults reported, the GLAA says.

There have also been health and safety concerns at some agricultural sites, with serious incidents reported.

Social media is being used to recruit agricultural workers who go on to be exploited, with some arriving in the UK for work that doesn't exist.

Field work is often not the first choice for workers, with several believing that they would be working in the pack-house when recruited – and for which workers have sometimes paid money to overseas agencies for.

Some agencies inform workers that they have to work in fields before they can move to factory work.

There are workers reportedly living and sleeping in vans which transport them across the UK for days at a time, with the driver both working and driving to the next venue.

Low payment rates

In many cases, abused workers are being paid less than National Living Wage rates (£7.83/hr for workers aged 25 and above), especially when deductions are made for accommodation and/or transport.

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The report also highlights workers not receiving their payslips and/or wages, or payslips not accurately reflecting the hours or nature of the work completed. "This falsification can make it appear that workers are being paid a fair hourly rate."

The GLAA says it has received information that supervisors are "knowingly sourcing" illegal immigrants to work in agriculture. Reports of under-age workers in the food industry are also being reported.

Roger Bannister, GLAA chief executive, says: "The sad reality is that the criminality that drives exploitation and slavery is quite close to home in the towns, cities and countryside in which we live and work."

Complex supply chain blamed

Food and farming campaign group Sustain says parts of the food system are "clearly broken" when it comes to protecting workers and a lack of enforcement of employment regulations is leading to huge exploitation in agriculture.

Vicki Hird, Sustain's farming campaign co-ordinator, says: "Agriculture workers are getting sporadic pay and at different rates, and there is too much evidence of criminality and slavery in food processing.

"The report shows that the growth of complex supply chains – where a drive for cost savings is leading to abuse – are often to blame."

Sustain has called for changes in how the whole food chain is managed, including better enforcement and monitoring of existing rules to tackle slavery and exploitation in agriculture.

The role of the Gangmasters and Labour Abuse Authority

The Gangmasters and Labour Abuse Authority (GLAA), formerly the Gangmaster Licensing Authority (GLA), was established in April 2005 by the Gangmasters (Licensing) Act 2004.

The primary objective of the Act is to curb the exploitative activities of gangmasters – a term used widely in agriculture to describe labour providers – the majority of whom run reputable and legitimate businesses.

The GLAA regulates the activities of gangmasters through a licensing scheme for labour providers operating in regulated sectors. Since April 2007 it has been illegal to supply workers to the agriculture, horticulture and associated processing and packaging sectors without a licence.

The licensing scheme ensures that businesses who supply workers (labour providers, gangmasters or agencies) and businesses who need workers (labour users, farmers, packhouses, factories) meet the employment standards that are required by law.

For more information visit www.gla.gov.uk

Calls for new seasonal labour scheme

Farming organisations have repeatedly called on Defra to reintroduce the seasonal agricultural workers scheme (Saws), to address labour shortages.

The scheme provided an efficient supply of labour to the horticultural sector for 60 years.

It allowed fruit and vegetable growers to employ migrant workers from Bulgaria and Romania as seasonal staff for up to six months at a time.

But the government decided to close the scheme in 2013 after claims that there should be sufficient workers from within labour markets to meet the needs of the horticultural industry.

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An NFU survey revealed a 29% shortfall in labour supply for September, almost double the number in 2016. The union has warned that labour shortages could result in more crops could left to rot in the ground this summer.

Speaking at the NFU Conference in February, Defra secretary Michael Gove said farm leaders had put forward "strong and compelling" arguments for a new scheme. But no announcement has been forthcoming.

Case study: Cornish gangmaster shut down for worker exploitation

A Cornish gangmaster who skimmed pay and ordered workers to work double shifts with insufficient breaks had her licence revoked by the GLAA in February.

Neringa Butkeviciute also failed to pay workers all they were due and charged for accommodation in caravans that were deemed both unsanitary and unsafe.

The 29-year-old operated her business DNK Recruitment out of the Bosparva Caravan Park in Leedstown, Hayle, where she provided workers for various roles in the horticulture sector.

But an inspection by the GLAA last December found serious issues with the way the business was being run.

Caravans being used to accommodate workers were found with leaking waste pipes, broken doors and windows, mould on walls, curtains and windows.

There was general overcrowding, defective smoke detectors and electric heaters placed close to bedding. A leaking shower that had caused the floor in one van to collapse.

There were also insufficient washing and laundry facilities, which left workers with no choice but to wear damp clothes, while the laundry room floor was covered in water despite the room containing electrical equipment.

Miss Butkeviciute supplied one worker for 18 consecutive days from 2-19 July. On 13 July the same worker had a break of only 2hrs 59mins between shifts.

JOURNAL : Farmers Weekly

Showery and humid weather over the next few days could encourage wheat ear diseases and pests, with growers being urged to monitor their crops and spray if necessary.

Winter wheat crops across southern England are well into flowering, which is the susceptible time for fusarium to strike, while more northerly crops could still be at risk from midge attacks.

Experts say the weather at flowering determines the severity of fusarium diseases, while similar weather encourages the hatch of orange wheat blossom midges as the wheat ear emerges.

See also: Why fusarium risk is rising in wheat and how to manage it

Fusarium infection needs high humidity for only 24-48 hours to occur and this can happen with a heavy shower over a couple days, so Jonathan Blake, disease expert at crop consultant Adas, says growers should be monitoring their crops daily.

Many wheat growers use a T3 ear spray to control fusarium, especially on milling varieties, and also give some top-up control against brown and yellow rusts and septoria.

"Using a T3 spray gives a yield advantage of 0.3t/ha, so it is quite an easy decision with wheat at £150/t," says Mr Blake.

Ear sprays are advised to be applied at start of flower to mid-flower (GS61-65), with Phil Jennings at crop specialist Fera suggesting if the forecast is wet then growers should apply a fungicide as soon as the flowers show.

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Midge attacks

The critical time for midge damage occurs earlier at ear emergence, so northern crops could be at risk after recent rain and soil temperatures above 13C. Advice from Adas is to check susceptible winter wheat varieties at the susceptible stage of ear emergence (GS 51-59) for adult female midges in the evening.

Steve Ellis, an entomologist at the consultant, says the control threshold in susceptible milling and seed crop is one midge per six ears and in susceptible feed crops it is one midge per three ears.

Agronomists point out that this is the first year that big numbers of midges have been seen since the most effective insecticide for controlling them, Dursban (chlorpyrifos), was banned in 2016.

Paul Fogg, cereals specialist at agronomy company Frontier, says his group is seeing big numbers of midges, especially in southern England, with one Oxfordshire trap catching a large number.

He says wheat growers need to be monitoring their crops until they start to come into flower, after which the risk of midge damage is diminished.

There are some midge-resistant wheat varieties available on the AHDB Recommended List, including Skyfall, Barrel, Kerrin and Santiago.

Control measures

Control of fusarium diseases is achieved with azole fungicides, with prothioconazole giving the best control while tebuconazole and metconazole offer some level of activity while giving good control of rapidly-spreading brown rust.

Mr Blake said tebuconazole and metconazole can be useful if brown rust is a threat, while the multisite fungicide mancozeb can be useful to boost septoria control.

For midge control, Dr Ellis suggests pyrethroids such as lambda-cyhalothrin and beta-cyfluthrin, and says timing is crucial as treatment only kills the adults present at the time of spraying.

The neonicotinoid insecticide thiacloprid (Biscaya) can control adults and has some activity against eggs and larvae, he adds.

JOURNAL : Farmers Weekly

NFU Scotland has welcomed the cancellation of a mass release of Chinese lanterns near Lockerbie.

The Light Fest, run by US firm Viive Events, had been due to take place at Springkell Estate near Lockerbie on 11 August.

But following strong opposition from farmers and environmentalists over the debris and fire risk to livestock, crops and buildings created by the lanterns, organisers have said the event will not go ahead.

See also: Calls for England to adopt Welsh councils' sky lantern ban

NFUS said the timing of the event was especially bad as it coincided with **harvest** and lanterns have been shown to start fires.

Teresa Dougall, NFUS regional manager for Dumfries and Galloway, said the decision would be "great relief" to farmers.

Campaign for a total ban

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The union has been campaigning for an outright ban on the lanterns for several years and said it would continue to do so, supported by other UK farming unions.

"While organisers of such events may point at insurance being in place, that is of little comfort," she added.

"By the time insurance is needed, the damage to property, crops, woodland or animal health has been done."

In total, 18 out of Scotland's 32 councils, including Dumfries and Galloway Council, announced a ban on the release of sky lanterns at all major events the council would host or sponsor. But that does not stop individuals releasing lanterns from private land.

'Common-sense decision'

NFUS policy manager Penny Middleton said it was a "common-sense decision", which should not require a campaign to achieve this result.

"Chinese lanterns can cause untold damage as there is no control over where these burning structures of paper, metal and wood decide to land," she added.

"That means they present an unacceptable risk to animal health, property and farmland at any time of year."

Sky lanterns have been banned across all public land in Wales. And more than 50 councils in England, out of a total of 353, have already banned sky lanterns, according to data collated by the NFU.

JOURNAL : Farmers Weekly

Live mart cull ewe throughputs are up this year, but Defra slaughter figures are back, leading analysts to suspect more cull ewes are returning to farms.

Data up to 25 May shows 696,309 cull sheep have been sold through the live ring, compared with 673,492 last year, a year-on-year increase of 3.3%.

However, Defra slaughter figures are 0.7% down to the end of April, with AHDB red meat analyst Rebecca Osborne suggesting sheep are being bought by farmers for feeding or breeding.

A difficult lambing period across Britain could have left a potential shortage of replacement ewes, forcing producers to buy sheep now, including some from the cull market.

Auctioneers are reporting a tremendous trade for cull sheep, with prices £5-£10 a head up on the year and numbers now beginning to tighten nationally into the summer.

See also: Q&A: Managing soil pH and lime deficiencies

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Newark

Cull ewe trade was £20 a head up on the year at Newark on Saturday (2 June), where James Sealy and Keith Miller of Newark Livestock Sales say tight national supply is keeping trade dear. Numbers were up 5% on the week and trade lifted £2.71/kg.

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Mr Sealy is starting to see numbers become tight and has seen some bidders, particularly when hoggs were dear earlier in the year, buy sheep for feeding.

Last year, more than 1,000 sheep levelled at £77.39, while this year 752 ewes made £99.47, of which 363 were farm assured and made £101.85.

He said good-condition lowland sheep have been making £80-£100 a head at the better end. Premiums for Texel- and Charolais-crosses have been seen at £100+ and pure continentals have been topping the mart at £140-£150.

Gaerwen, Anglesey

Gaerwen's cull ewe averages for 2018 so far (4 June) are £6-£7 dearer on the year at £65, despite an extra 2,000 more sheep through the ring.

Throughputs of 700-800 ewes a week are being reported by auctioneer Simon Jones, director at Morgan Evans and Co, which is currently in its busiest time for selling cull ewes.

"After Ramadan and into midsummer we will start seeing the mountain sheep coming in, but not for a few more weeks," Mr Jones says. "We usually have a quiet time in July and August, while May and June are the busiest times."

Leyburn

Numbers have tightened over the past fortnight at Leyburn, where mart manager Stephen Walker is seeing about 100 ewes a week on Wednesday sales.

Mr Walker is "cautiously optimistic" about trade staying strong for Leyburn's busiest cull ewe period in September and October (400 head a week).

The last two sales (23 and 30 May) saw Mules sell to £105 and £112, respectively, averaging £92 and £79. Continental ewes sold to £144 and £127 and averaged £97 and Swaledales to £81 and £79 and averaged £55 and £57.

"Conditions have improved greatly and generally people are able to feed and look after sheep better than ever," says Mr Walker. "There's been very little drop in quality, even during lambing, when things were difficult."

JOURNAL : Farmers Weekly

Small suppliers will be hit hardest and thousands will lose jobs as a result of an industry-wide squeeze on margins as a result of the Asda-Sainsbury's mega-merger.

April's deal to create a Frankenstein's monster of a retailer from the two supermarket giants will force many suppliers to go to the wall or see them become victims of the takeover through pressure on margins, according to a report from financial analysts Plimsoll.

See also: Industry reacts to Asda-Sainsbury's merger

Despite the average profit margins within the food supply industry sitting at a healthy 4%, the report outlined that 125 of the UK's 500 largest food manufacturers were already considered to be in "financial danger".

A further 73 businesses were in the financially vulnerable position of making losses before the inevitable squeeze on margins as a result of the merger has even taken place.

In order to survive such a hyper-competitive environment, the report predicted many suppliers would have to merge themselves to deliver greater margins from economies of scale.

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<https://infogram.com/plimsoll-report-1h0n25gopx7l6pe>

"Improved efficiencies may be one area of cost savings for the newly combined Sainsbury's and Asda, but anymore downward pressure on supplier prices will make it incredibly tough for food suppliers – ultimately costing jobs in the long run," said Plimsoll senior analyst, David Pattison.

Mr Pattison added if the deal goes ahead he foresaw a period of acquisitions, takeovers and mergers as supermarket suppliers fought for survival, in a race to the bottom on price.

"In many cases, these companies have a good gross margin but Plimsoll's assessment shows their financial health isn't what it could be.

"Mergers like this and the consolidation of the competition also make life very difficult for surviving smaller suppliers," he added.

Tough environment already

Many food suppliers were already having to adapt to the higher costs that have come with the national living wage, auto-enrolment pensions and the weakened pound, said Mr Pattison, who added the proposed merger could be the final straw that pushed many suppliers to sell up.

"Doing business will become harder as more stringent financial controls are introduced in an effort to reduce exposure from both suppliers and customers going bust and it is the small supplier who will suffer most."

"Ultimately, the consumer might well **end** up paying the price as a consequence of this merger with less consumer choice or lower-quality products."

The report was published as the Competition and Markets Authority's deadline for evidence from suppliers over how the potential merger would affect businesses **ended** on Monday (4 June).

JOURNAL : Farmers Weekly

Three members of Somerset Young Farmers earned the right to celebrate in Blackpool this weekend after cycling more than 230 miles to this year's NFYFC Annual Convention, raising money for charity, in the process.

Ben Druitt from Bridgwater YFC, plus Tom Pope and Joshua Fincham, from Ilminster YFC, left the Weston-super-Mare pier in the early hours of Thursday morning (3 May), supported by fellow young farmer Pip Cusack.

Setting off at 6.15am, the team cycled for 20 hours and 15 minutes before arriving at Blackpool pier at 2.30am on Friday (4 May), allowing a few hours to sleep, before the weekend festivities got under way at the Winter Gardens.

See also: Video: Young Farmers raise almost £1,000 for charity

The young farmers have raised more than £2,000 so far, with the money being split between the Royal Agricultural Benevolent Institution (Rabi) and St Margaret's Hospice.

As tiring as the epic journey was, Ben says it was a unique way to travel to the convention and a great method of raising money.

"Josh has done a lot of long-distance cycling in the past, so that's where we got the inspiration. The response from people has been excellent and we've managed to raise a significant amount of money for charity, which is great," he added.

You still have time to donate to the team's fundraising page and support their efforts.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Tristan Baxter-Smith is part of an expanding group of arable farmers growing soya which has seen the crop's area nearly double this spring.

Looking for a profitable break crop on his heavy Northamptonshire soils to replace the poor profitability of spring beans, he has tried a small area of soya for the first time.

Attracted by the current strong soya price and the crop's low inputs he has just drilling his crop into a good moist seed-bed in mid-May.

"Why soya? It's mainly because of the profit margin. It's a product that's a good demand and the price is good," he told Farmer Weekly.

See also: Soya market offers huge potential after Brexit

Farming a relatively small arable area of 88ha, he is keen to grow crops that see a strong demand - hence milling winter wheats and spring oats, and now soya.

He is growing 6ha of the variety Siverka and is hoping to harvest the crop in mid-September, at about the same time as spring beans.

"If this crop does well, we will look to increase the area of soya gradually," he added.

Following beans

This crop followed spring beans on Poplars Farm, Hannington, five miles north-east of Northampton, and the field was sub-soiled, drilled with a cover crop of vetch and black oats then sprayed with glyphosate and rolled before being direct drilled.

His drilling rate was pushed up to 148kg/ha from a recommended 140kg/ha to account for his heavy soils, and drilled no deeper than 25-37mm and then rolled again.

Seed cost is the biggest expense of the crop so getting good establishment is key with gas-guns and artificial kites used to keep pigeons off the young cotyledon leaves until the first true leaves appear.

"As a small arable farm, we have to do something a bit different so the focus is on crops that people want," he said.

He is aiming to use a similar pre-emergence herbicide to that used on spring beans, and possibly an insecticide, but is using no fertiliser as the crop follow spring beans and as a legume soya fixes its own nitrogen from the atmosphere.

Blackgrass has been a problem but with rotational ploughing, spring cropping and direct drilling the grassweed is under control, while the late spring drilling of soya will give him more time for control.

Area is rising

David McNaughton, director of Soya UK which supplies the seed and buys back the harvested crop, expects the soya area to rise to 3,200ha from 1,920ha last year following a good harvest in 2017.

He has 180 growers all contracted to produce soya at a price of about £375/t, which is a £25/t premium over imported GM soya from North and South America.

"Next year we would expect the area to double again, and then climb steady largely due to the good gross margin," he said

He advises that soya can be grown south of a line from Humberside to Pembrokeshire with growers as far afield as Doncaster in Yorkshire, Shropshire, Kent and south-west Wales.

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One grower **harvested** a yield last year as high as 3.1t/ha, some at 2.5t/ha, then a big group at 1.9t/ha and a few below that level, he said.

"If growers are looking for a spring-sown break crop which fixes its own nitrogen, is profitable and with a big potential demand then soy could be interesting," he added.

Britain imports the equivalent of 3m tonnes of soya annually – 1m tonnes of beans and 2m tonnes of meal – largely for livestock feed.

Targets for soya in 2018

Yield

2.5t/ha

Value

£375/t

Income

£938

Seed cost

£140/ha

Fertiliser

£55/ha

Sprays

£65/ha

Total costs

£260/ha

Gross margin

£678/ha

JOURNAL : Farmers Weekly

If your pickup truck isn't posh enough to have fancy reversing camera to help lining up with a trailer, a quick-hitch guide from Spaldings may be a cheaper alternative to avoid dented rear bumpers.

See also: On test: Can wireless CCTV make trailer reversing a doddle?

The flared angled edges of the guide sit between the ball hitch and the rear bumper, and as long as you're a pretty decent shot with the ball, the edges will catch the trailer's nose and guide it straight on to the tow ball. Then it's just the simple process of connecting the trailer in the usual way.

There's an added benefit for trailer test (B+E) candidates as the quick hitch can be used as an aid during the test.

Spaldings offers five different quick hitch products, including a model with folding edges to allow tailgates to be used, starting at £90.

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Geacut roller

Also new from the parts supplier is a trailed serrated roller built by Sacho Land Solutions and designed to scythe down cover crops before direct drilling.

The Geacut is a folding implement with three serrated rollers available in a 6m width only. It weighs 5,210kg but can be water ballasted to 7,020kg to provide extra cultivation on heavy soils or to penetrate through dense swards.

Instead of being a drawbar connection, the Geacut attaches to the lower link arms to allow tighter turns on headlands and hug ground contours.

Rapid speeds of 30kph are possible due to the large rubber doughnut-style bushes, which reduce the shock impact between the outer wings and the frame, preventing the bearings from shaking themselves to bits.

As well as cover crop bashing, Spaldings says long maize or OSR stubble can also be tamed with the roller, which has full-width replaceable steel blades.

A tug of 150hp is needed on the front and you should expect to pay about £28,000 for the Geacut.

JOURNAL : Farmers Weekly

New-season lamb (NSL) numbers are starting to build, but levels are well down on the same point last year, which could underpin a buoyant market through June.

Rebecca Osborne, AHDB analyst, said more spring lamb was starting to come on stream, but the throughput was still almost one-third (23,000 head) down on the same week in 2017.

See also: Slaughter figures suggest cull ewes are returning to farms

"We are finally seeing more of new season than old season come through to markets but we're still very behind year earlier levels," she said.

"In the year to date, we have had 24% less NSL though than last year, which is just under 80,000 head."

Ms Osborne said it was at this point last year when prices started to ease back – dropping by a total of 37p/kg over a four-week period – but it could now be a couple more weeks before a significant number hit the market. "As the numbers aren't yet available, it is probably going to support prices for another couple of weeks."

Auctioneers' view

Auctioneers report that trade for lambs remains strong because of short supplies, but some are warning that farmers in a position to sell now should do so because of the uncertainty about future pricing.

James Sealy of Newark Market in Nottinghamshire said no one could have predicted how high hogg prices were going to go in March/April May and it was anyone's guess what was going to happen.

All of his farmers were telling him their lambs were two to three weeks behind last year, but he pointed out he had seen NSL supplies build quickly over the past month, from 200 to 500, to 1,000 and then to 1,500.

"My advice for farmers is if they are fit, they want selling."

Mr Sealy said he had sold 1,624 spring lambs on 9 June which achieved an SQQ average price of 259.30p/kg.

He had also sold 2,030 hogs which averaged an SQQ of 183.37p/kg. "There were buyers for them, but at a price."

Jonathan Evans, selling at Welshpool market in Powys on Monday (11 June), said he had seen 3,200 spring lambs go through the ring with prices averaging 259p/kg, which was similar to the week before.

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"There's not the numbers of sheep there to knock the trade back, but there is going to come a glut at some point."

Will Alexander said the trade at Gisburn market in Lancashire on Thursday (7 June) had been good with prices for spring lambs averaging 268p/kg, which was 6-8p/kg higher than the week before.

"Good lambs are ranging from 280-316p/kg, with good quality butchers' lambs going for 300p/kg and above. "The more commercial lambs are 250 to 280p/kg."

According to the Beeston Castle in Cheshire's market's report for its spring show and sale on 7 June, 497 NSL were sold making an overall average of 269.3p/kg.

In total, 15 pens made more than 300p/kg and 24 pens grossed more than £120 a head. Old season lambs made a top price of 220p/kg, but averaged 183.1p/kg.

AHDB price update

Figures from AHDB show the SQQ liveweight price for spring lambs in the week ending 6 June rose 2.29p to 260.35p/kg.

In contrast, the old season lamb SQQ fell for the sixth consecutive week, down 8.31p on the week, to 186.17p/kg. This is the lowest the quote has been since the third week in January.

The average deadweight price in the week ending 2 June dropped sharply, by 52.2p, to 537.9p/kg, but is still 31p/kg higher than at this point last year.

JOURNAL : Farmers Weekly

Since my last Spud Watch, conditions have improved dramatically and there's been a flurry of activity.

We've avoided the extremes of temperatures and rainfall that areas further south have experienced in the past few weeks and growers have made steady progress with planting.

Soils have warmed up quickly and are at temperature's similar to last year already.

Seed planting began in the last week of April which is not particularly late, and conditions have been in general good with only the heaviest soils needing time to dry out and become workable.

See also: Midlands potato grower develops time-saving chitting system

Ware growers are also making progress and although they did start significantly later than normal, hopefully, the yield potential won't be hit too hard (although it might help the price).

The very earliest planted crops of salads are almost emerging, so attention will soon be on herbicide choices.

With little or no linuron on farm to use up by the 3 June which is the final use date, the programmes will be based around metribuzin as the main residual active.

However, with a lot of sand soils up here and also varieties which are sensitive to metribuzin there's going to be several options to consider depending on the weed spectrum.

Solecto (metobromuron) and Quidam (prosulfocarb) will be used in many situations, but other products may be needed.

JOURNAL : Farmers Weekly

Spring has arrived and planting has continued non-stop since my last report. Soil conditions have generally improved, although some poorly timed cultivations have led to wet soils drying out like concrete.

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As a consequence, they have required a large amount of horsepower, fuel and steel to achieve a decent seed-bed.

In Yorkshire, there is just the last few fields of seed to be planted. Early-planted crops are emerging and if conditions remain dry, pre-emergence sprays containing prosulfocarb + pendimethalin will be less effective.

However, canopies should develop quickly to outcompete the weeds (hopefully).

See also: How fungicide data is helping to combat new potato blight strain

Cheshire

In Cheshire, planting of maincrop has continued at a rapid pace and at the time of writing, was just about finished.

First earlies under fleece have developed quickly over the past two to three weeks, with the first new "Cheshire" Maris Bards available by the bank holiday weekend.

The first-planted open ground crops are somewhat variable, with patches of free-living nematodes (FLN) and rhizoctonia damage being observed, even where azoxystrobin has been applied.

This just confirms the strong link between the two and the variability in FLN numbers across fields. A sample result may give you a low count with a low risk of feeding damage, but is it representative?

The cool, moist soil conditions, delaying emergence early on, won't have helped.

Lancashire

In Lancashire planting continues, while crops left in the ground from last year – if not already harvested or destroyed – are growing again.

This is ringing alarm bells already in terms of blight risk – given the right conditions, I would expect blight pressure to be very high in this area.

In this situation, I would suggest that fluazinam is not the first choice of active ingredient to use as the first blight spray.

JOURNAL : Farmers Weekly

What a difference a month makes – and if it is dry and relatively sunny, it's even more pronounced.

There has been a flurry of activity all along the Moray firth and after a later start, all the seed and ware crops are in the ground, and in pretty good order. In fact, the finish of planting has not been particularly late for the North.

With the heat now in the ground – soil temperatures of more than 19C were recorded on several days and this year's average for May is 3C higher than last year – the crops are emerging fast. Agronomists and sprayer operators have worked hard to keep up with the growth.

See also: How to manage disease in sugar beet crops

Weed control has been pretty good up until now, but it is going to be a challenge for residuals to perform in drying soils.

Growers are getting out irrigators for scab control in early Maris Peer – the only hope for some rain is the chance of a passing thunderstorm this weekend and that will be a bit of a lottery

Early salad crops are now only a week behind last year in terms of ground cover and the first blight sprays are going on them.

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Blight risk

The warm overnight temperatures and fog rolling in from the sea has been triggering warnings for the past few days, so it's not a time for complacency, despite the relatively dry and sunny weather during the day.

Next week is going to be spent getting blight programmes in place and, hopefully, some results from yellow in-field water traps will confirm what the aphid populations are like.

They were predicted to have a late arrival after the cold winter, but it will probably be offset by the warmth of the past month.

JOURNAL : Farmers Weekly

The latest figures released from ongoing net feed efficiency (NFE) trials by the Stabiliser Cattle Company show more efficient bulls and steers with low NFE figures save £21 a head and £22 a head, respectively, on feed costs over a 12-week period.

Work to date has seen 1,338 animals measured for NFE since 2011 by tracking dry matter intake, daily liveweight gain and carcass fat depth, across 17 different NFE trials conducted at SCC's Wold Farm NFE unit in East Yorkshire.

Results so far have shown that:

For the same performance, more-efficient, low-NFE bulls consume 14% less feed than less-efficient, high-NFE bulls, reducing feed costs by £21 a head over 12 weeks.

Feed consumption for low-NFE steers is 12% less, saving £22 a head.

This equates to a £90 cost saving per finishing space a year – potentially the difference between profit and loss.

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Reducing maintenance requirements

NFE trial results involving 80 Stabiliser steers

12-week trial on GrowSafe feeding systems

Feed cost of £165/t DM

Ration of 50% forage/50% concentrates on a dry matter basis

An additional factor often overlooked is maintenance requirements of cows and calves in suckler herds, added researcher and SAC beef specialist Jimmy Hyslop, who analysed data from the trials.

He said maintenance accounts for 70-90% of total feed inputs in the entire production system. Feed used for growth of the finished animal accounts for the last 10-30%.

“Consequently, both the economic and environmental significance of feed efficiency are often hugely understated,” explained Dr Hyslop.

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“Being able to select for more feed-efficient cattle will have a huge effect on both the profitability and overall sustainability of beef production,” added David Alvis, managing director of SCC. “This is why SCC has invested considerable resource over the past six years to develop the industry’s first commercially validated estimated breeding values for net feed efficiency.”

Low NFE

Mid NFE

High NFE

Mean liveweight (kg)

585

594

585

Daily liveweight gain (kg)

1.82

1.87

1.80

Fat depth

6.8

7.2

6.8

Dry matter intake (kg/day)

12.1

13.2

13.7

Feed conversion ratio (DMI:LWG)

6.7

7.1

7.7

Net feed efficiency

-0.79

-0.04

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+0.83

Average cost deviation (£)

-15

0

+7

JOURNAL : Farmers Weekly

Staffordshire machinery dealer David Eaton Tractors has taken on the challenge of selling McCormick tractors after axing its previous arrangement with Agco brand Valtra, which had been in place for the past 17 years.

The change promises the opportunity for dealership expansion, with more staff and a larger trading area stretching into Cheshire and Staffordshire, which are both previously untapped regions for McCormick.

See also: Buying a tractor? How to make sense of engine statistics

Family-owned David Eaton took on the franchise at the beginning of April and sold two tractors soon after to a large dairy outfit.

The dealer will have responsibility for sales of both new and used tractors ranging from 43hp to 310hp, as well as servicing and parts supply from its base at Fradswell, Staffordshire.

JOURNAL : Farmers Weekly

To help while away the hours on tedious brushcutting or mowing duties, Stihl has come up with a set of ear defenders featuring wireless headphones.

The Dynamic BT protectors operate via Bluetooth, meaning no cables are required and they're compatible with most makes of smartphone and tablet.

However, for those that prefer old-school cables, there's still the option of a plug-in 3.5mm AUX connection.

See also: On test: Electric trimmers deliver petrol-powered performance

Stihl also added a microphone so the user can make and receive calls without having to remove them.

This and all other functions are controlled via three buttons on the headphone cans.

The in-built battery lasts about 38 hours and can be recharged using a standard USB cable, which is included.

List price is £85 and they are available through most Stihl dealers. Online prices start at about £70.

JOURNAL : Farmers Weekly

Spring weather has brought forth plentiful grass and renewed buyer confidence in May store cattle sales.

Rather than prices easing slightly as spring progresses, auctioneers have said trade has remained brisk as straw and silage worries faded into late April and May.

Hexham

A yarding of 1,132 store cattle ranging from nine to 24 months levelled at £1,048 at Hexham on Friday (4 May), on a par with last year's trade.

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See also: Farmer Focus: Store cattle 'silly season' nearly upon us

This compared well to the March sale, at which 771 cattle levelled at £1,114 for steers and £1,010 for heifers as the sale bucked the trend of recent years, auctioneer Chris Armstrong told Farmers Weekly.

An exceptionally good run of 58 stores – ranging in age from 18 to 22 months – from Willie and Martin Woodman, Great Chesters, Roman Wall, levelled at £1,489 for heifers, with a top price of £1,590. Th 29 steers on sale made £1,599, with a top price of £1,660.

A run of 20 Limousin and Blue-sired steers and 13 heifers (aged nine to 12 months) from Ashley and John Murray, Butsfield, County Durham, averaged £1,189.

"The trend has been over the past eight to 10 years for the May sale prices to be slightly behind the March sales, as vendors often sell their strongest, earliest-born stores in March. But not this year," said Mr Armstrong.

He said the steady disappearance of suckler herds across the north Pennines was a factor in strong trade, as there were fewer herds selling store cattle.

"We consistently sell about 400-500 suckler cows at dispersals annually and have been for 10 years. Labour and time are some of the main problems," he said. "This is 500 calves not going through the store ring. Numbers are falling, but it's difficult to put a figure on how much."

Knighton

Solid trade was reported by McCartney's at Knighton on Friday (4 May), where a showing of some very strong yearling cattle sold to an average of 229.75p/kg and £1,011.63 a head, including some bulling heifers and a pedigree Limousin heifers at £1,700.

Heifers averaged 243.41p/kg and £985, and a lot of 12-month-old animals over 450kg averaged 230p/kg, said auctioneer Jenny Layton-Mills.

She said steers were back slightly, with a lot of younger cattle aged about 12 months.

She added: "Most of the cattle had come out of sheds and we are seeing numbers dropping due to TB. We had 500 at this sale last year and are at 350 now."

Bishops Castle

Trade stayed stable on the year at Bishops Castle on Thursday (3 May), with steers back £9 a head (-4p/kg) at 252p/kg or £1,001 a head, to match the heifer trade.

Halls and the Bishops Castle and District Quality Cattle Association commented on the excellent quality cattle on the day.

Highlights included 313p/kg for a British Blue steer (355kg) from Probert and Probert, Lower Hill, and £1,215 for a 510kg Limousin from GE Davies, Cwm Bromley.

JOURNAL : Farmers Weekly

Farmers are being asked to submit evidence to an inquiry by MPs into the future of dairy exports – and the potential for a new strategy after the UK leaves the European Union.

The inquiry was launched by the All-Party Parliamentary Group (APPG) on Dairy, headed by MP Scott Mann, whose North Cornwall constituency is in a dairy farming heartland.

See also: Cost of production analysis vital for dairy sector

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The Dairy APPG will hear from a range of industry speakers later this month.

It will include representatives from Defra and the AHDB, who will outline current export data and take a look at what future export strategy could look like post Brexit.

APPG chairman Mr Mann said: "I'm delighted to launch this inquiry on behalf of the Dairy APPG to understand the framework within which British dairy exports can thrive."

Practical help

"These are exciting times, but I want to know what practical and realistic help the government can provide to help the industry post Brexit."

In the coming year the Dairy APPG will also look at sustainability in the dairy sector, as well as innovations in milk packaging.

The APPG has four MPs as vice-chairs: Steve Double (St Austell and Newquay), Angela Smith (Penistone and Stocksbridge), Chris Davies (Brecon and Radnor) and David Simpson (Portadown).

Forum for debate

The Dairy APPG is a cross-party group of MPs and peers that aims to provide a forum for parliamentarians to discuss issues of interest for the dairy industry.

Working with Dairy UK and the Royal Association of British Dairy Farmers, it also works to ensure parliamentarians are fully briefed on developments in the dairy sector.

All-Party Groups are informal, cross-party interest groups that have no official status within parliament and are not accorded any powers or funding by it.

Written contributions to the inquiry are welcome, and should be forwarded to the APPG secretariat at appgdairy@gmail.com

JOURNAL : Farmers Weekly

Sheep flocks with abortion rates higher than 2% can have ewes tested for two key loss-causing pathogens under a subsidised diagnostic scheme.

Toxoplasmosis and enzootic abortion account for about two-thirds of all diagnosed abortions, according to MSD Animal Health, which has subsidised the Expertis FlockCheck testing scheme for more than 10 years.

The company explained that when abortion rates climbed above 2% it suggested an infectious cause and should be investigated.

See also: Only half of farmers store vaccines correctly, survey finds

The subsidised scheme, open to sheep farmers nationwide, is available through vets until 31 July. It requires vets to take blood samples from six to eight aborted, unvaccinated ewes.

Test results

MSD Animal Health veterinary adviser Stephanie Small said test results from 2017 revealed that more than 80% of ewes which aborted had been exposed to toxoplasmosis while almost three-quarters indicated enzootic abortion and two-thirds tested positive for both diseases.

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“Aggregated data from the 2017 FlockCheck scheme highlighted that 81% of flocks tested showed evidence of exposure to the parasite *Toxoplasma gondii*, which causes toxoplasmosis,” Ms Small explained.

If either toxoplasmosis or enzootic abortion has been diagnosed in a flock, vaccination is the most effective way to help protect against these diseases for future years Stephanie Small, MSD Animal Health

“The data also showed that approximately three-quarters of flocks had been exposed to *Chlamydophila abortus* bacteria, the organism causing enzootic abortion,” Ms Small said.

“If either toxoplasmosis or enzootic abortion has been diagnosed in a flock, vaccination is the most effective way to help protect against these diseases for future years,” she added.

Breeding females can be vaccinated against toxoplasmosis between four months and four weeks before tupping and are then protected for at least two lambing seasons.

Vaccines for enzootic abortion can protect the ewe for at least three years and all breeding females should be vaccinated any time between four months and three weeks before tupping, Ms Small advised.

JOURNAL : Farmers Weekly

More than 1,650 acres of quality Suffolk farmland is being sold for the first time in more than a century as the Sutton Hall Estate near Woodbridge hits the market with a £31.5m price tag.

It has been in Sir Guy Quilter's family since the late 1800s, but he and wife Jenny have decided to call time on their ownership after a 26-year programme of improvement.

See also: Farm succession advice - 'fair' and 'equal' may not be the same thing

The 2,177-acre estate's natural successors, the Quilter's three sons, have interests away from agriculture. This has played a significant role in the couple's "very difficult decision" to sell up.

Improvements to farmland

Sir Guy told Farmers Weekly the installation of a ring main to irrigate the entire arable acreage was one of the landmark improvements he has made.

“We built two reservoirs with a combined capacity of 60m gallons and put in a ring main to cover the whole farm, which was completed in 1997,” he said.

“We're on Grade 3 and 4 land here, so the irrigation was key to the flexibility of cropping.”

Sutton Hall Estate

Mixed estate with large, wholly irrigable arable area

Flexible cropping – combinable crops, vegetables, turf

Great conservation potential – extensive private riverbank access, marshland, woodland, heath

Income from let properties

Grade II-listed hall

Good diversification potential

About 1,430 acres of the estate are in arable, which has been managed by the same contractor for more than 20 years.

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On lighter heathland the typical rotation includes winter barley, potatoes, sugar beet and vining peas, while slightly heavier soils produce wheat, rape, potatoes and sugar beet.

Most crops are grown under contract or sold at harvest, limiting the requirement for grain and vegetable storage, and production is aided by the frost protection delivered by its coastal location. Cropping has also included carrots, onions, parsnips and turf production.

The balance of the acreage is in 242 acres of pasture – let on seasonal licences – and 380 acres of well-managed woodland that was replanted after the 1987 storms.

Income diversity comes from 11 let houses that have been renovated, as has the Grade II-listed Sutton Hall.

“There is room for further estate diversification such as using it as a wedding venue or tourism. We have been approached by lots of people, but we haven’t overcommercialised it,” said Mrs Quilter.

Sale as a whole or in two

The family hopes the estate will appeal to buyers as a whole, but it could sell as two well-proportioned separate estates. They feel it suits an investor or wealthy individuals seeking a lifestyle asset.

Knight Frank partner George Bramley is joint selling agent with Landbridge and says Sutton Hall is the type of agricultural business best placed to thrive post Brexit.

“Spreading your risk with lots of diversified income streams is very important as we look towards a shift away from direct support,” he said.

“Having so many high-value cropping options means you can create a really varied rotation that doesn’t put too much stress on the land.”

The estate also has good conservation potential for any new green schemes, says Mr Bramley.

Difficult decision to sell

The decision to sell has not been taken lightly, but the Quilters feel it is right.

“People can hang on to estates because it is their duty and expectation to and sometimes you can end up passing it to someone who doesn’t want the responsibility,” said Sir Guy.

“If you’re not completely comfortable running a place like this you can get it wrong very easily. History is littered with estates that have turned to dust within a generation.

“We feel very lucky to have had the opportunity and I’m really proud of what we’ve achieved, but it feels like we’ve done as much as we’re comfortable doing without changing the nature of the estate.”

JOURNAL : Farmers Weekly

The partners of a Suffolk-based farm have been ordered to pay £28,400 after a haulage contractor was killed by an overhead power line strike.

Haulier Christopher Wilson was killed when his tipping trailer was raised and made contact with overhead power lines running across part of the yard at the Airfield Grain store, in Parham near Framlingham.

Mr Wilson, who was aged in his 30s, was electrocuted and he died at the scene on 30 August 2016.

See also: Take care when working under power lines

The site was managed by Suffolk farmers Nicholas and Roger Watts, partners of FS Watts and Sons.

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An investigation by the Health and Safety Executive (HSE) found FS Watts and Sons had failed to take suitable precautions for work near to the overhead electric power lines.

This was despite recommendations given to them previously by NFU Mutual Risk Management Services

HSE: Avoidable death

Both partners pleaded guilty to breaching regulation 3(1)(a) contrary to regulation 14, of the Electricity at Work Regulations 1989. Each was fined £9,500 and ordered to pay costs of £4,700.

Speaking after the hearing, HSE inspector Saffron Turnell said: "This tragic incident led to the avoidable death of a young father.

"This death could easily have been prevented if those in control of operations at the grain store had acted to identify and manage the risks involved and put a safe system of work in place."

JOURNAL : Farmers Weekly

A farm-designed cultivator for dealing with blackgrass problems won the top award in the Inventive Farmer Competition at this year's Suffolk Show.

The annual competition, which attracts entries from across the eastern counties, is for machines and gadgets designed and built on the farm, usually with mainly recycled scrap materials.

This year's winning entry in the new equipment category was the germinator/cultivator built on Andrew Fane's 500ha Hoo House Farm at Woodbridge, Suffolk.

Designed to work in stubble, his cultivator encourages blackgrass and other weed seeds to germinate for subsequent chemical control.

The main frame was from a redundant power harrow and carries a pair of wheel-mark eradicating tines at the front followed by 15 heavy-duty spring tines arranged in two rows.

The rear of the frame has a levelling bar with height adjustment, followed by a heavy press roll at the rear.

See also: 2017 best farm inventions: Complex category

Runner-up in the new equipment class was a grain pusher designed to operate at maximum reach while working on a small telehandler.

It was built from scrap materials on Andrew Gaught's Manor Farm, Ashbocking, Suffolk, where it is used on a JCB 525 Loadall.

Special design features include a slim tubular main frame allowing the pushing head to operate among drying pedestals, and the pushing head is removable to allow the frame to be used on the telehandler as a lifting jib.

Nifty mods

In the modifications section, the winning entry was a special grass seed sowing unit developed by Peter Knight for his contracting business based in Bury St Edmunds, Suffolk.

Grass sowing and maintenance for amenity and agricultural use is a major part of Mr Knight's operation, and he developed his modified seeding unit for a contract to sow seed along a river bank.

He used a standard Stocks Fan Jet Pro 65 applicator fitted with rear deflector plates and mounted on a rigid steel arm carrying the seeder up to 2 metres away from the side of the ATV or UTV.

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Last year's new equipment winner in the Suffolk Show competition was retired engineer, Michael Beckett from Great Blakenham, Ipswich.

He entered his heavy-duty log splitter equipped with a hydraulic ram originally designed for use on a Caterpillar excavator. It is powered by a 1960 Fordson Dexta tractor.

Although the splitter can handle big logs, loading them on to the main frame manually was difficult.

To solve the loading problem Mr Beckett has attached a lifting frame to the main beam of the log splitter, powered hydraulically by the tractor.

With the frame lowered, the log is rolled into position and its weight automatically triggers a pair of catches that prevent the log rolling off the frame.

The frame then lifts the log into position ready for splitting.

Although it no longer qualified for the new equipment category in the competition, the new self-loading version of the log splitter was awarded second place in this year's modifications class.

Clever gadgets

In the gadgets category a compact storage unit made entirely of recycled items took the top award.

Entered by Chris Templeman of Red House Farm, Witnesham, Suffolk, the main components were large diameter concave discs from a harrow that provided the three round shelves with a fourth disc used as the base.

The discs were originally serrated, Mr Templeman explained, but when the serrations became too worn to be effective, he decided to give the discs a new role as circular storage shelves for the corner of his workshop.

The circular shelves are free to rotate, and the top shelf is fitted with lengths of steel spiral from a pig feed auger to hold hammers and other workshop tools.

JOURNAL : Farmers Weekly

This year, we're ramping up our regional coverage of the farming and countryside shows taking place across the nation.

These events are so valuable, allowing the agricultural industry to communicate more about British food and farming to the general public, and bringing the rural community together for a much-needed day off.

From 21 to 24 June, 190,000 visitors descended on the Royal Highland Centre in Ingliston on the outskirts of Edinburgh for the annual Royal Highland Show.

See also: Why young farmers should consider getting into poultry

Show-goers had to get the suncream on as the four-day event was drenched with Scottish sunshine.

As always, the show was a great showcase for the best of British livestock with hundreds of outstanding entries exhibited in the dairy, beef, sheep and equine rings.

The grandstand quickly filled with spectators for the impressive Grand Parade in the main ring.

See also: The winners in the RHS beef, sheep and dairy interbreed competitions

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With a forge, a forestry area and a countryside area, there was no shortage of places for people to learn about rural crafts and skills.

But if it was retail therapy and a good lunch out visitors were after, they would not have been disappointed, with hundreds of food stands and shopping galore.

If you have an agricultural show taking place in your area and think it should be covered by Farmers Weekly, let community editor Oli Hill know by emailing oli.hill@reedbusiness.com

JOURNAL : Farmers Weekly

Adults living in the countryside are more likely to be financially vulnerable than their urban counterparts, a survey has revealed.

The research, carried out by the Financial Conduct Authority (FCA), showed that 54% of adults in rural areas lived in potential vulnerability compared with the UK average of 50%.

The FCA explained that vulnerability was not simply the level of indebtedness but a range of components, such as low earnings, lack of online access and health problems.

Online access

One major difference uncovered was access to online financial services in rural areas. Of UK adults who never use the internet, 70%, or 3.7 million people, live on farms or in villages.

It means the take-up of mobile banking by adults with a day-to-day account in rural areas, at 23%, is just half that of adults in urban areas (45%).

See also: 6 tips for improving short-term farm finances

The lack of online access means there is a greater dependency on bank visits, with 68% of country people using a branch in the past 12 months against 61% in towns.

Work and incomes

Rural dwellers are less likely to be working, with under half (46%) employed, compared with 62% in towns and cities.

As a result, household income was 10% lower for rural people, at an average of £41,000, compared to £46,000 in urban areas.

The survey also revealed more retired country people depend on a State Pension (51%) as their main income compared to 44% of urban dwellers.

Education

Additionally, educational achievement levels were much poorer in the countryside, with only one in three holding higher qualifications compared with 41% in built-up areas.

The difference was even starker for those with no qualifications at all at 23% in rural situations – almost double the 12% level for people who live in urban locations.

Debt

However, responses to the survey revealed that the level of debt in rural areas was lower, with fewer people (37%) borrowing through credit cards, overdrafts and high-cost loans compared to the UK average of 46%.

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More adults in urban (27%) than rural (20%) places have been overdrawn in the past 12 months and more urban adults (20%) than rural adults (14%) possess a credit card that they do not pay off the monthly balance on. It means adults in rural areas owe far less on average (£2,510) than their urban counterparts (£9,150).

Mortgage debt reflected a similar situation, with more adults in the country owning their home outright (42%) compared to less than a third (30%) in Britain's towns and cities.

But average mortgage debts in the countryside, at £123,000, were similar to the UK average of £126,000.

Health

The survey also looked at health issues. It found one in three (32%) adults in the countryside had one or more long-term physical or mental health problems, well above the UK average at less than a quarter (24%)

The survey

The FCA canvassed 13,000 people aged 18 and over. Interviews were carried out online and face-to-face to ensure non-internet users were included. The survey data can be interpreted in many different ways. This report shows the results across different geographic areas of the UK.

Reacting to the survey, the Country Land and Business Association focused on the disadvantages arising from poor online access.

The organisation's senior rural business adviser Charles Trotman said: "As more and more services come online it is vital for rural areas to have the same digital connectivity available in towns and cities. However, homes and businesses across the countryside are still being disadvantaged by poor broadband and mobile coverage.

"Farmers struggle to fill in important BPS or tax documents, while barriers are created for rural tourism businesses who can't offer digital services to guests or even operate online booking systems."

JOURNAL : Farmers Weekly

A lot of effort has gone into managing wheat crops during this difficult spring. However, getting the T3 spray wrong could undo much of this good work and put income at risk.

Ear blight-causing species *Fusarium culmorum* and *F. graminearum* produce the mycotoxins deoxynivalenol (Don) and zearalenone (Zon), and there are legal limits for both.

High levels can lead to the loss of milling premiums, or even crops being rejected altogether.

See also: Angled sprayer nozzles give best wheat ear disease control

While other species such as *Microdochium nivale* do not produce mycotoxins, they can have a severe impact on grain yield and specific weight, as seen in the harvest of 2012.

Therefore, it's important for farmers to manage the risk at the T3 fungicide timing.

Prevention - trials with angled nozzles

Phil Jennings, plant pathologist at Fera, says he is already seeing *microdochium* at the stem base and *Fusarium culmorum* on lower leaves.

"You would not normally see *F. graminearum* yet, but current dry conditions have been favourable for it," he adds.

Dr Jennings highlights that it is all about prevention – and this relies on getting good coverage of the ear with a fungicide.

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“Ideally you need to fully coat the ear. Then you have a better chance of stopping infection,” he says.

He recalls a trial where they coated one side of the ear and still saw disease development on the other side.

The need for good coverage led Dr Jennings to carry out trials with angled nozzles.

“Our work has shown that that angled nozzles improve control,” he says.

He tested angled nozzles versus vertical flat fans and saw a consistent response from Proline (prothioconazole), Folicur (tebuconazole) and Prosaro (prothioconazole + tebuconazole).

For example, with tebuconazole fusarium severity fell from 24% to 15% just by the switch to an angled nozzle.

Sprayer operator

Sprayer operator Matt Redman has gone a step further by fitting angled nozzles (Defy 3D), alternating forwards and backwards facing.

“This is so we can coat both sides of the ear as the sprayer travels through the crop,” he explains.

Mr Redman has about 600ha of winter wheat in Bedfordshire and Cambridgeshire that he will be applying a T3 to this season.

Matt Redman’s approach to T3 spraying

Nozzle: Defy 3D, alternating forwards and backwards

Pressure: 3bar

Volume: 100 litres/ha

Speed: Forward speed of 12-14kph.

Boom height: 50cm above the crop

Ideal timing - tight window

The other key part of a successful T3 spray is timing, as the window can be just a matter of a few days. Sam Harvey, Bayer’s commercial technical manager, says the ideal timing is early to mid-flower at growth stage 63.

“Work with Fera identified this as the ideal timing. Plants start to flower at the centre of the ear and this is the time to go in for maximum protection. You are applying before disease starts to penetrate via the anthers.”

He warns that if farmers leave it to growth stage 65, the fungus may already be in the ear.

“Conversely if you go too soon, you will not coat the anthers and this route of entry is exposed.”

This season, the high variability of crops in fields will make timing more difficult, as you are not going to hit the optimum time for all plants.

Mr Redman says he goes by the majority of the field, as “this is where most of the yield potential is”.

Finally, on fungicide choice, Dr Jennings says azoles like metconazole and tebuconazole offer good control of Fusarium culmorum and F graminearum.

However, prothiconazole is the only azole that is effective for both fusariums and microdochium.

Know your enemy

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Knowing which species are present in your crop allows you to take the right action, thereby minimising the number of rejections. Read our guide to the different species for an in-depth look

JOURNAL : Farmers Weekly

Northern Ireland's farmers have welcomed the department of agriculture's latest pledge to involve farmers "at every level" in TB policy-making and eradication, but remain disheartened about the lack of meaningful action in managing the disease in wildlife.

This follows the Department of Agriculture, Environment and Rural Affairs' (Daera) unveiling of a new bovine tuberculosis eradication partnership (TBEP) at the Royal Ulster Agriculture Society Balmoral Show this week (15 May).

The Ulster Farmers' Union (UFU) has said eradication is a long way off and farmers are "incredibly frustrated" at the lack of meaningful action on wildlife.

See also: New six-hour TB test approved for 'exceptional' use

The TBEP's eventual aim is to rid Northern Ireland of TB by combining the efforts of vets, farmers, government figures and other industry stakeholders.

TB in Northern Ireland is on the rise

As of August 2017, TB was present in 10% of herds and 4.2% of cattle

In April 2009 it was present in 6% of herds and 4.2% of cattle

An early meeting has been requested by UFU leaders to establish what control measures can be introduced that won't hurt farmers.

UFU president Ivor Ferguson said: "The appointment of this group is welcome news and demonstrates that some action can be taken in the current political vacuum.

"However, farmers have repeatedly expressed their anger and frustration to us at the perceived lack of action being taken to tackle this awful disease."

Fresh thinking

Daera permanent secretary Denis McMahon said his department recognised the high rate of TB incidence and the stress felt by farming families.

TBEP will involve farmers at "every level" and provide a partnership structure of advice and fresh thinking.

JOURNAL : Farmers Weekly

A farmhand has been **handed** a suspended prison sentence for illegally driving a tractor while over the limit.

Owen Collinson took a McCormick tractor from his grandfather's farm, in Carlin How, North Yorkshire, where he lived and worked, and went on a drunken joy ride.

Teesside Magistrates' Court heard how the 19-year-old was pursued by police at about 11pm on 19 April following reports of two young men drink-driving in the Skelton area of North Yorkshire.

See also: Tractors on the roads – rights, wrongs, rules and regulations

Mr Collinson, who was already banned from driving, was pursued by police at 25mph. After a five-mile chase, officers eventually caught up with him at the junction of Marske Road and the A174 road.

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He fled the tractor on foot but was chased by officers who caught up with him on the Coast Road at Redcar.

Mr Collinson was arrested at the scene and charged with drink-driving, driving while disqualified, driving with no insurance and failing to stop for police. He later pleaded guilty to all four charges in court.

Over the limit

When he was breathalysed, his reading was 50 microgrammes of alcohol in 100 millilitres of breath – the legal limit is 35.

The court was told he had been drinking vodka and cans of beer before deciding to take a friend for a ride in the tractor.

Mr Collinson, of Brotton Road, Carlin How, was sentenced to eight weeks in prison, suspended for 12 months. He was banned from driving for 14 months and given a 20-day rehabilitation activity requirement. He was also ordered to pay £200 costs.

A 30-year-old man who was arrested at the scene was released without charge.

JOURNAL : Farmers Weekly

It is often said that any dog is capable of attacking a sheep – it's the hereditary wolf in them, and even the most placid pooch can turn killer if those ancient genes kick in.

That is true, says Kent-based sheep farmer Tobin Bird, but it doesn't mean the vast majority of dogs can't be trained to respect livestock and become almost totally reliable in the presence of sheep.

See also: The law on shooting dogs

Like many sheep farmers, Mr Bird has had repeated problems with dog attacks on his 80ha farm at Iden Green. "Every year it seems to get worse. I've had two serious attacks, with sheep being ripped apart and on occasion having to be put down.

"It is so frustrating. People just don't understand the consequences of their actions and the damage their pets can cause to a farmer, both financially and emotionally."

That is why, six years ago, Mr Bird decided to launch a sideline to his farming business called Sheep Proof Your Dog.

"I have always worked with animals, and especially like working with problem cases," he says. "Initially a few friends asked me to help train their dogs to stop chasing sheep. That worked so well that I then decided to develop it as a business."

Mr Bird trains about 400 dogs a year on his farm and, while he cannot guarantee 100% success, he says only a handful of dogs do not quickly learn to behave in the presence of sheep.

How does it work?

The key to a successful training session is to let the dog know who is boss, and that is all about the tone of voice.

"People just don't know how to speak to a dog," says Mr Bird. "You've got to dominate the dog and let them know who is the alpha party."

Each session begins with the owner and the dog on a lead entering an enclosed pen with four sheep in it. As soon as the dog gets close to the sheep, Mr Bird shouts "No, No" and makes a loud noise with bottles to effectively shock the dog.

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The numbers

Tobin Bird trains about 400 dogs a year

Sheep worrying is estimated to cost farmers £1.6m a year

A 30-minute mid-week training session costs £31

There are 900 sheep in Ashdown Forest

This is repeated several times, before the group enters a larger field, where Mr Bird's two working Collies drive a small flock of sheep towards them. Again, as they pass close by, the strong command of "No, No" is repeated.

The dog is then returned to its owner, who has to repeat the process as the sheep get near.

The dogs often seem completely disconcerted and associate the presence of sheep with a loud, scary noise. Within minutes, they start to regard the sheep with a mixture of respect and caution.

After the lesson, Mr Bird encourages the dog owners to reinforce the message with voice and noise whenever they can – especially to call their dogs off things like rabbits and pheasants, using the same technique.

"It is also important to praise the dog as well when it comes back – and I still strongly recommend people keep their dogs on leads when livestock are visible and not take any chances," says Mr Bird.

Meet the trainees

Butter wouldn't melt – or would it? Nigel Fish, the owner of this five-year old Madagascan Coton de Tulear, said he had no idea his family pet would show any interest in sheep – until three years ago when out on a family walk in Snowdonia.

"We were nearing the end of our walk when we suddenly came across a flock of sheep and he went absolutely nuts," he said.

"He gave chase and we just could not get him to stop. Fortunately the sheep managed to cross a stream and got away, but it made me realise the same could happen again, so we've always kept him on a lead, and now we are putting him through this training."

This three-year old Mastiff, Serberus, may look pretty mean, but according to his charge for the day, Fiona Stephens, he has never shown any interest in sheep.

But with a sheep farm adjacent to the equestrian centre where he lives, his owners felt it imperative that he receive some training to try to minimise the risks.

"In my opinion, people should be made to 'livestock proof' their dogs and this sort of training should be obligatory," says Ms Stephens.

"At least if you know your dog's limits, you know what you are dealing with. It only takes one sheep to go, and any dog can take off after them. I always keep my dogs on a lead near livestock – it should be made compulsory."

Forest partnership

As well as training about 400 dogs a year on his own farm, Mr Bird has also teamed up with the Ashdown Forest Conservators in East Sussex to run four training days a year – held at the National Cat Centre in the forest.

Forest director Pat Buesnel says the forest has suffered a number of fatal attacks in recent times, both on its own Hebridean sheep and on those belonging to its 12 active commoners.

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In one incident last year, commoner Henry Osborne from Nutley, East Sussex was himself attacked as he tried to get two dogs off his sheep. In the past, he had to shoot a dog which was attacking his livestock.

"The problem seems to be getting worse, with out of control dogs not only disturbing our sheep, but also our cattle, fallow deer and ground nesting birds," says Mrs Buesnel. "It's often due to ignorance on the part of the owners, so we want to help them."

As well as publishing its own Code of Conduct for Dog Walkers, for the past four years the forest has helped organise training days with Mr Bird, catering for up to 17 dogs a day.

"The courses are proving incredibly popular and are always over-subscribed," says Mrs Buesnel. "We publicise them through social media and they are generally full within a few days. We often find people coming back for refresher courses."

JOURNAL : Farmers Weekly

Tens of thousands of individuals and organisations with an interest in food, farming and rural issues are believed to have responded to Defra's "Health and Harmony" consultation, in the hope of influencing future policy.

The ideas and priorities now submitted to Defra will be pored over in the coming months and some of it will finally emerge as the new policy for British agriculture outside the European Union.

Here we summarise the key points put forward by some of the bodies that have taken part.

See also: Key points to consider in Health and Harmony consultation

Tenant Farmers Association

Tenancies should be reformed to give growers and livestock producers greater security and incentive to invest in their businesses, says the Tenant Farmers Association (TFA).

Farm businesses tenancies, let under the Agricultural Tenancies Act 1995, lack the necessary security of tenure for a vibrant, productive and prosperous farm industry, argues the TFA, which advocates a series of fiscal changes to stimulate a "more sustainable approach to letting land".

Recommendations include restricting 100% Agricultural Property Relief (APR) from inheritance tax to landlords prepared to let for 10 years or more – or on new tenancies, including successions, with security of tenure under the Agricultural Holdings Act 1986.

The TFA says the government should also clamp down on landowners who use share farming, contract farming, share partnerships and grazing licences as "thin veneers of trading activity and as vehicles for aggressive tax avoidance".

Arguing that these schemes are promoted by agents and accountants, the TFA says landlords taking advantage of them in practice "take no risk in the business, have little, if any, entrepreneurial input and lack any management control".

To further encourage longer tenancies, the TFA says landlords prepared to let land for 10 years or more should be able to declare their income as if it was trading income for taxation purposes. Stamp duty land tax should also be reformed to end discrimination against longer tenancies, it adds.

A further issue to be resolved is "dual use", which allows landowners to enter land into an agri-environment scheme – and receive the benefits from the scheme directly – even if they have let that same land to an agricultural tenant.

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"This practice supports the non-active individual and provides the opportunity for landlords to impose scheme requirements on their tenants who often get no return from the scheme itself," says the TFA. "These practices must be outlawed in any new arrangements."

Country Land and Business Association

While favouring a move towards greater environmental delivery, the CLA is especially wary of a sudden change, such as a sharp drop in direct farm payments following Brexit. It has therefore set out three crucial preconditions:

There must be absolute clarity about the long-term EU/UK trade arrangements before there is any transition away from direct payments

There is a clear plan in place for investing in agricultural productivity during the transition period.

There must be clarity on what will replace the Basic Payment Scheme before steps are taken to start dismantling it.

The CLA is totally against the capping of payments to larger farmers and landowners as part of the process of winding down direct payments, saying cuts should be made in small increments (no more than 20% a year) and spread across all farmers equally. A five-year transition is deemed "reasonable", while the CLA also sees no merit in retaining "greening" requirements.

It also insists that the current budget for agriculture should continue beyond 2022, while payments for a new environmental scheme should do more than just cover "income forgone" and actually provide a profit to participating farmers.

"It must also come with an effective delivery mechanism which has been shown to work," it says. The CLA is advocating a system of land management contracts, including a non-competitive "universal" element that most farmers can sign up to, and an "enhanced" element, with extra payments for those who want to take the provision of public goods a stage further.

The CLA favours a new system of "rolling application windows", with area payments, stand-alone grants and a "light touch" from inspectors.

It has welcomed the recognition of improved productivity and competitiveness as a public good worthy of support.

National Sheep Association

Transition and **ending** direct payments

The NSA wants a minimum transition period of five years to give farmers time to adapt – and this should only start when there is clarity on the terms of trade with the EU, the new Agriculture Bill is on the statute books, and a food policy agreed. As for direct payments, the NSA wants a "fair" percentage cut across all businesses.

Barriers to progress

A lack of core profitability due to high business costs and comparatively low product prices is holding businesses back, exacerbated by a culture of cheap food prices. Encouraging young people into agriculture is also constrained by a lack of reward. This must be addressed.

Collaboration

The NSA believes it is beneficial to retain as many individual farm businesses as possible, but to seek scale through collaboration. A new policy should encourage farmers to work together in areas of research, land management initiatives (such as water catchment areas and landscape management), and marketing to increase efficiency and negotiating strength.

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Farm support

The current budget for agriculture should be maintained and funding redirected to support capital investment, efficiency improvements (in particular a sheep health scheme), and public goods (including environmental and social goods).

Animal welfare

The NSA does not agree with raising welfare standards per se, as this could raise costs in comparison with production elsewhere. But it does aspire to raise welfare “outcomes” through investment in health measures to improve productivity, efficiency, carbon footprints and welfare.

Devolved issues

A level regulatory platform between all UK nations is needed, with consistent movement and traceability rules and, within reason, comparable financial support programmes and no trade disruption within the UK.

Sustain

Sustain, “the alliance for better food and farming”, is the umbrella organisation representing about 100 environmental and agricultural lobby groups. Its members include Compassion in World Farming, the Campaign to Protect Rural England, the Family Farmers Association, the Landworkers Alliance, Friends of the Earth, the National Trust and the Soil Association.

It describes Defra's 64-page consultation document as “uneven”, but says it has some real strengths, in particular its focus on the public goods that government should support via regulation, advice, rewards and disincentives.

Sustain welcomes the focus on environmental outcomes, and soil and water, as well as biodiversity. But it says Defra needs to go further with “delivering public health outcomes”, including measures based on public procurement, mitigating climate change and organic farming.

“We need to talk more about growing more, and sustainable fruit and vegetables, less sugar and growing for sustainable diets, as well as air pollution, pesticides, access to nature and reducing farm antibiotics,” says campaign co-ordinator Vicki Hird. “It needs to offer much stronger support for higher animal welfare.”

Sustain is especially concerned with ensuring greater fairness in farming matters – with a better regulated supply chain to ensure farmers get a fair price. And it favours “a diversity of farm businesses”, with specific help for smaller farmers.

On the phasing out of direct payments during the transition period, Sustain says cuts should be deep enough to generate sufficient funds for new pilot environmental schemes, but the burden should be spread more widely than just capping payments to the largest farmers. It suggests linking payments to employment levels, with the smallest farms exempt from cuts.

Sustain does not favour the removal of “greening rules” as part of the transition, but payments should be made conditional on delivering public goods.

Generally, Sustain has expressed concern about the long-term commitment of the Treasury to support Defra's ambitions for delivering public goods and a support structure, including grants, advice and better IT.

It also wants farmworkers to be able to negotiate collectively on wages, “as they can in Scotland, Wales and Northern Ireland”.

NFU Scotland

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Even though the consultation is primarily focused on a new policy for England, it does touch on devolved issues, acknowledging the need for some policy divergence, while ensuring the UK single market works properly.

NFU Scotland says it is vital that future agricultural policy meets the distinctly different needs of Scotland. It is especially interested in the frameworks needed to facilitate intra-UK trade and future funding levels for Scottish farming.

"The UK's various governments should jointly take every step to retain and protect single market access for food, agricultural commodities, live animals and plant and plant products throughout the UK," says policy director Jonnie Hall.

NFUS is also seeking a clear statement on future funding levels for agriculture and rural development in Scotland. "At least the same level of public investment in Scottish agriculture must be retained and this budget must be ring-fenced to agriculture and rural support."

Sustainable Food Trust

The Sustainable Food Trust says it supports the high emphasis on sustainability, animal welfare and using public money for public goods. "If designed in the right way, such a future support package has the potential to correct the economic distortions which currently exist within food and farming," it says.

However, it cautions against getting rid of area payments per se, because of the "social security element" of the current scheme, which keeps many businesses afloat. "Instead, we believe that many of the desired changes in farming practice would be most effectively delivered through a whole-farm support package, based on land area," it says.

Such a scheme could include a number of options, some applicable on a field scale, or even whole-farm scale, and some of a more tailored stewardship nature.

The Sustainable Food Trust welcomes Defra's proposed Environmental Land Management Agreement, which is set to become the main vehicle for delivering post-Brexit farm support. But it is wary that such an approach might perpetuate the separation of food production from nature conservation.

"We feel that the continued structural separation of nature conservation from food production – physically, financially and in the public mindset – will fail to reverse the catastrophic declines in biodiversity and natural capital which have occurred over the last 50 years."

The trust says it is also concerned about the possibility of significant areas of land being taken out of food production and given over entirely to nature conservation.

"For a country which is nowhere near self-sufficient, this will either result in further increases in intensification on the areas remaining in production or increased imports of food from countries where environmental and public health standards are not as high."

A new system of conditional area payments should reward/encourage:

Crop rotations which include a soil fertility building phase

A reduction in the use of chemical fertilisers/pesticides

Farming practices which build soil carbon and promote biodiversity

High standards of animal welfare

Increased employment and staff development

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Greater sales to local processing facilities and markets.

Soil Association

The Soil Association has expressed its frustration that, while the consultation is entitled “Health and Harmony”, there is “bugger all” in it about human health.

“The need to reduce farm antibiotic use gets a mention, as does the possibility that access to green spaces might benefit our wellbeing, but there is so much more to it than this,” says policy director Peter Melchett.

“The government is keen on the ‘public money for public goods’ principle, but it has, so far, failed to recognise public health as a public good.”

As such, the Soil Association is urging government to pay farmers to change their practices, including increasing vegetable production, reducing antibiotic usage and getting schoolchildren out onto farms and into green spaces.

Lord Melchett also calls for a change in public procurement policy to support British farmers, “particularly those producing to high quality standards, such as high-welfare food that is good for wildlife and organic”.

“There is still time to stop-the-clock on our declining public health by empowering farmers to join the battle for a healthier Britain. Failure to do so will exacerbate the pressures already on the NHS, entrench already dire diet inequalities, and create not ‘health and harmony’, but worsening ill-health and social disharmony.”

AIC

The Agricultural Industries Confederation (AIC) says environmental enhancement must be coupled with agricultural production and support for innovation. Specifically, it wants:

A greater acknowledgement of the need for productive agriculture

Incentives to reward farmers for balancing production and environmental goals

Better education and training, to improve farm productivity

Continuous professional development that includes environmental management

Research and development that is more relevant to farmers’ needs

Increased sharing of best practice between farmers

RSPB

A focus on public money for public goods – rewarding farmers who deliver environmental benefits such as more wildlife, cleaner water and carbon storage – presents the best case for ongoing public investment into farming, argues the RSPB.

“A significant increase in investment is needed compared to existing agri-environment schemes,” it says. “Defra should retain, but refocus the overall budget associated with the CAP, in order to drive the restoration of nature that we need.”

Alongside this, the RSPB says the government should develop a Sustainable Food Strategy for England – including measures that improve supply chain transparency, help farmers to get a fair return from the market and promote more sustainable, healthy diets.

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Recognising the “urgent need” to rebuild the confidence of the farming community in Defra’s ability to deliver Countryside Stewardship, the RSPB says Defra’s proposed new environmental land management scheme should learn lessons and build on the best of previous initiatives.

Recognising the scale of change faced by farmers, the RSPB says Defra should establish a transition fund to help farmers adapt to life after direct payments. This would provide support for succession planning, business management advice and new entrants.

“Securing a stable transition will be essential in making a success of a new, expanded environmental land management system,” says the RSPB. So too will proper enforcement of rules that maintain high environmental standards.

JOURNAL : Farmers Weekly

More than 4,000 people have signed a petition calling for tougher sanctions and a change in the law to combat livestock worrying in Scotland.

It comes amid an ongoing NFU Scotland campaign, which is pursuing several legislative changes to tackle the problem of dog attacks against livestock.

This spring saw repeated incidents where irresponsible dog owners allowed livestock to be killed or maimed by dogs, said the union.

See also: Investigation – Police fail to crack down on sheep worrying

Rural insurer NFU Mutual recently revealed the cost of claims related to livestock worrying has reached a record level of £1.6m across the UK.

Insurance claims related to dog attacks reported to NFU Mutual in Scotland had quadrupled in the past two years to total more than £50,000, it said.

Last month, NFU Scotland wrote to the Scottish government with five key proposals designed to tackle ongoing problems related to livestock worrying.

Blight on farming

Martin Kennedy, vice-president of NFU Scotland, added: “Despite a vast amount of awareness raising, livestock worrying remains a blight on Scottish livestock farming.

“Dogs themselves are not to blame, it’s their irresponsible owners who need to wake up and understand the devastation this is causing.”

The five areas NFU Scotland wants included in any new legislative framework are:

Livestock worrying becomes a recordable crime

Dogs to be kept on a lead around sheep

Police powers to issue dog control notices

Police powers to obtain evidence, seize dogs and have dogs destroyed

Fines levied on offenders and full compensation to farmers

Mr Kennedy said: “This is a real opportunity to clamp down on the issue once and for all – hopefully saving our members immeasurable heartache and considerable financial losses.”

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South Scotland SNP MSP Emma Harper recently announced that she will bring forward a proposal for a Private Members Bill to ramp up the law.

Trauma and devastation

The petition was presented to Ms Harper at the Royal Highland Show on Thursday (21 June).

Speaking ahead of the event, she said: "The trauma and devastating effects for all who are involved or witness livestock worrying needs to be addressed."

In addition to the petition, 120 people completed a questionnaire related to livestock worrying.

Survey finding suggest only 47% of livestock worrying incidents are reported to the police – with 53% of respondents stating they suffered unclaimed financial losses.

Mr Kennedy said NFU Scotland would continue to engage strongly with the legislative process to ensure robust enforcement of the law.

He added: "As always, we urge our members to continue to report all incidents of livestock worrying to Police Scotland."

JOURNAL : Farmers Weekly

A looming threat to cereal and rapeseed prices has been stopped after plans to cut the use of crop-based biofuels in the transport sector was abandoned by European politicians.

A compromise on revising the EU Renewable Energy Directive in Europe post-2020 was agreed by the European Commission (EC), European Parliament and the Council of Ministers at a meeting on 14 June.

Crucially for farmers, plans put forward by the EC to reduce the cap on crop-based biofuels from 7% of total road and transport fuels in 2021 to 3.8% by 2030 (over concerns about using food as fuel) do not appear in the final agreement.

See also: Threat to crop-based biofuels grows

Farm leaders expressed relief saying this should help to underpin demand for biofuels produced from UK-grown wheat or oilseed rape over the long-term.

It includes a binding renewable energy target for the EU of 32% by 2020 with an upwards revision clause for 2023.

Fuel suppliers will also be obliged to make sure that by 2030 at least 14% of the fuel used for transport comes from renewable sources.

Successful lobbying

Tori Morgan, NFU combinable crops adviser, said the NFU had been lobbying hard on the directive to help protect the UK's export markets.

About 40% of all UK oilseed rape ends up being turned into biodiesel on the continent, so if the markets were restricted then this could reduce demand for UK growers.

"Whether we're inside or outside of Europe we will still be wanting to make use of those markets," she said.

Ms Morgan said overall the NFU was relatively pleased with the final deal, which was considerably better than it could have been.

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"In the initial proposals there were no specific transport targets, so it is positive the obligation to keep blending biofuels with fossil fuel is still there," she said.

"The initial proposals also wanted to phase down the level of crop-based biofuels to 3.8% and that's all gone, so these are all positive things."

European lobbying group Copa/Cogeca said it believed the agreement was going "in the right direction", although it still had points of concern.

Pekka Pesonen, secretary-general, said the deal offered biofuel producers a long-term stable framework to work with.

"We regret, however, that EU crop-based biofuels will not have the opportunity to expand because the phasing out of the use of palm oil has been postponed, especially since EU crop-based biofuels generate protein rich co-products for use in feed which livestock producers need.

"They also play a bigger role in stabilising agricultural markets facing increasing volatility."

UK targets

In April 2018, the government introduced revised targets for the use of biofuels under its renewable transport fuel obligation (RTFO).

The main change was to more than double the target for the amount of biofuels used in transport from 4.75% to 9.75% in 2020, and 12.4% in 2032, a move which was welcomed by the farming industry.

However, in a bid to encourage the use of more "advanced" biofuels the RTFO does set a maximum cap for crop-based biofuels of 4% in 2018, reducing annually from 2021 to reach 3% in 2026 and 2% in 2032.

Future fuels

Meanwhile, parliamentarians have thrown their weight behind a campaign to get the government to adopt E10 petrol standards in the UK.

Neil Parish, chairman of the Environment, Food and Rural Affairs select committee and Nic Dakin, chairman of the All Party Parliamentary Group for British Bioethanol, have written to ministers calling for the introduction of E10 by the end of the year.

E10 is regular unleaded petrol blended with 10% bioethanol – and is the biggest selling petrol in France, Belgium and Finland.

It also accounts for 95% of petrol sales in the US.

The UK only sells E5 petrol (a 5% blend) but it has been estimated that doubling the level of bioethanol in petrol supplies would be the equivalent of removing 700,000 cars from the road, as well as bringing a boost to the farming industry.

JOURNAL : Farmers Weekly

Store cattle supplies have tightened across Europe, further strengthening prime beef values into 2018 in the face of strong demand for manufacturing beef demand.

Deadweight prime cattle prices have rocketed more than 6p/kg since the end of March and almost 11p/kg since the end of February, as huge cull cow numbers continue to see sufficient demand to support strong trade across the beef market.

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Great British cull cows have topped this year so far at a deadweight average of 260.3p/kg on 21 April, coming back slightly into May to 258p/kg, up 17p/kg on the year.

Market updates from AHDB analyst Rebecca Osborne suggest prime cattle supplies are tightening, with QMS analyst Richard Ashworth stating that national and Europe-wide figures suggest numbers will remain constrained this summer.

See also: Cattle prices firm into March as snow clears

Mr Ashworth said: "With BCMS data showing a fall in the number of 12- to 18-month old cattle on GB holdings at the turn of the year, there is little likelihood of increased slaughter stock numbers in the medium term."

Irish cattle are 4% dearer on the year, while across Europe, one-year-old cattle numbers were back 1.6% in December and two-year-olds back 0.7%.

Analysts still point to a weak pound helping UK exports, with a euro worth about 88p. Meanwhile, the markets wait to see if a typical seasonal summer price lift is felt.

Selby

Supplies are looking tight around the Selby area, where cattle prices have been consistently firm in 2018, according to auctioneer Richard Haigh.

He told Farmers Weekly he has been managing to keep numbers up, but with trade strong, there has been an incentive for finishers to sell.

Recent weeks have seen bulls make 160-180p/kg for black and whites, beef-bred bulls hit 215-225p/kg and the best make 220-230p/kg or even up to 240p/kg.

Last Wednesday's sale (9 May) saw 51 steers average 220p/kg and heifer numbers lift 57% on the week to see 183 entries level at 228p/kg.

"Going through the summer we will probably see supplies a bit tighter, but feeders seem to be keeping numbers up reasonably well, which will have been difficult this spring because store cattle have been a good price. Once we get into later summer and **harvest** time, prime cattle are typically harder to find anyway."

Market Drayton

Numbers are "about on par" at Market Drayton, where Bernie Hutchinson of Barbers Auctions is seeing in the region of 100 bulls and 100-120 clean cattle every Wednesday.

Trade has strengthened 5-10p/kg on the month, and has been strong this year generally, with a large proportion of dairy-bred cattle coming from the region. Steers and heifers have regularly averaged 200p/kg or more, with stronger, beef-bred animals at 240-250p/kg, Mr Hutchinson told Farmers Weekly.

He said supplies of cattle looked to be tight on finishing units in his area, adding that good prices have encouraged strong cattle to be sold. However, the late spring has slowed down the progress of the grass-fed cattle.

"Heavier stores have been slaughtered already in some cases and there may not be enough cattle coming through," said Mr Hutchinson. "In terms of grass cattle, they need a bit longer. Turnout was late, but there is suddenly an abundance of grass now."

"I think trade should hold pretty firm or see a slight increase."

JOURNAL : Farmers Weekly

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Red meat producers in Scotland are likely to see strong prices for beef and lamb for the remainder of the year as tight supplies give farmers the upper **hand** over buyers.

Deadweight cattle prices are standing at near-record levels with R4L grade cattle selling to 385p/kg and Angus up to 435p/kg according to data published by Farm Stock Scotland, while deadweight lamb prices are some 30p/kg ahead of last year at 540-570p/kg.

Scottish farmers were among the worst affected in the country by one of the most challenging springs for many years said Stuart Ashworth, director of economic services at QMS.

See also: Six ways livestock farmers can improve carcass eating quality

However, rising costs of production mean profit margins are unlikely to be as high as last year, as it will be difficult to pass these along, he warned.

He said many farmers were warning their lamb supplies were likely to be some 10% lower than the previous year after bad weather battered farms during lambing season meaning there will be more competition for those that make it to market.

The knock-on effect is already being seen in-lamb supplies across the country, with AHDB data showing the number of new-season lambs sold was a third lower last week than the comparable week last year.

In the year to date, there have been 26% fewer new-season lambs sold through auction markets but more are coming forward each week.

Beef prices also up

High prices are also being recorded for finished cattle, as concerns also increase about sufficient beef supplies coming to market, with calf birth registrations declining in Scotland for the second year in a row in 2017.

Mr Ashworth said production levels were still higher than five years ago, but the average volume of meat from each carcass is falling as producers respond to market signals favouring lighter animals.

This contributed to a fall in the total amount of meat produced in Scottish abattoirs, which was down 3.9% in 2017 on the previous year to about 212,000t, although turnover increased by £32m, according to QMS data in their annual profile of the Scottish red meat industry, launched on Monday (18 June).

He warned it was crucial volumes were maintained for the sake of processors, as they, like farmers, are operating on very tight margins, and preserving the processing sector was vital for the health of the overall industry.

High prices since the Brexit referendum have been largely underpinned by the devaluation in the pound, and Mr Ashworth said farmers needed clarity about their future as soon as possible in order for them to make appropriate plans to adapt.

Until trade deals were finalised, major decisions such as which enterprises to invest in and which to scale down could not be made, he said.

JOURNAL : Farmers Weekly

Soaring timber and firewood prices should act as an incentive for more farmers to consider planting trees or better manage areas of existing woodland on their farms, according to forestry body Confor.

Figures from the Forestry Commission show timber prices have risen by almost 30% in a year and are nearly double the level of a decade ago.

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The statistics show a 28.2% surge in the price of standing timber – trees which have not yet been **harvested** – from March 2017 to March 2018.

See also: Thriving UK forestry market increases demand for farmland

The average price for coniferous standing sales is now about £24.64/cu m overbark (this means it includes the bark in the measurement).

The price of softwood sawlogs also went up by 20.8% in the six months to March 2018, taking them to £48.36/cu m overbark in nominal terms.

Andrew Heald, Confor's technical director, said prices were even higher in some regional hotspots, including Wales and Dumfries and Galloway in southern Scotland.

Firewood prices had also risen and were about £50-60/t.

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Secure supplies

With demand for timber predicted to remain high at a domestic and global level, Confor is calling for a long-term approach to forestry to secure future supply.

“Scotland is increasing planting rates but the rest of the UK is lagging behind and the supply crisis will only get worse in the years and decades to come unless we tackle this problem now,” he said.

“These statistics highlight the need for forestry and wood processing to be a much more central focus of the rural economy after Brexit.”

Mr Heald said many farmers and landowners were realising the benefits of planting part of their land with trees.

“For those who already have trees, but have maybe not managed them well – or who have timber in hard-to-access locations – now is the time to have that asset valued and look at realising a great price.

“When you have done that, you can replant the land and then consider extending the area covered by trees.”

Location specific

Mr Heald told Farmers Weekly the size at which a woodland would become a viable proposition for timber was very location specific.

“You could have a small woodland of 4-5ha, which is near a road and easy to work, but if it is down a narrow track then you might need 10-15ha,” he said.

Farmers who wanted to cut and sell timber would need a felling license before they proceeded, he said.

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They could obtain this direct from the Forestry Commission, although it might be advisable to first contact a professional forester through the Institute of Chartered Foresters to get some advice on the best way to manage the project and how to market the wood.

See also: Could your farm woodlands generate a new income stream?

The push for plantings

The UK is the world's second largest net importer of timber after China, but the creation of new woodland in England is at a 46-year low.

Strong demand for timber is coming from the construction sector, pallet market, as well as from the agricultural and garden fence sector, biomass and woodchip industries.

To increase domestic supplies and reduce the UK's reliance on imports, Confor has identified key areas in the north and west of England which it says should be designated as forestry investment zones with the aim of promoting large-scale woodland creation.

It says these are areas with land suitable for timber production and with sizeable timber processing facilities already located in the vicinity.

The first investment zone it has selected is in Cumbria, with other local authority areas as follows:

Northumberland County Council

Durham County Council

North Yorkshire County Council

Shropshire (Unitary authority)

Telford and Wrekin (Unitary authority)

Herefordshire (Unitary authority)

Gloucestershire County Council

South Gloucestershire (Unitary authority)

Somerset County Council

Wiltshire (Unitary authority)

Dorset County Council

Cornwall (Unitary authority)

Devon County Council

JOURNAL : Farmers Weekly

Young farmers in Wales hoping to benefit from a scheme offering a start-up grant of £40,000 have a fortnight left to express their interest.

The Young People into Agriculture scheme will support 150 young farmers looking to establish a new business in their own right or develop a fledgling one.

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The aim is to support the next generation of farmers, focusing on those who have the skills and potential to drive change in the wider industry.

See also: Four young farmers on setting up successful dairy joint ventures

Expressions of Interest (EOIs) are being sought from “high achieving” young farmers who were under the age of 40 on 1 April 2018 and were setting up as head of the holding for the first time.

Successful applicants will have to demonstrate they have the potential to lead dynamic new businesses or deliver change in an existing business.

Their businesses must either have been set up in the 12 months before 1 April 2018 or be established by 1 September 2018.

Working capital

The £40,000 funding will be paid in three instalments up until 31 March 2020, if applicants can prove they have successfully delivered on an agreed set of Key Performance Indicators (KPIs).

The money is working capital and so can be used to pay for the running costs of the business, or to facilitate the purchase of land, machinery or other equipment.

Application criteria

The EOI paperwork will be scored and ranked in order until a list of 150 potential candidates has been reached.

Only these applicants will be invited to the second stage of the application process, which will involve submitting a business plan and a schedule of KPIs on which applicants feel their performance should be measured.

The government has published a scoring matrix which shows how the EOIs will be marked.

It shows that extra points will be awarded to applicants operating on tenanted land with a degree-level education.

Horticulture and dairy businesses will also score higher than beef, cereals, pig, poultry or sheep enterprises (the score for sheep being the lowest).

Applications will also be assessed on the business plan supplied with them – with a Farming Connect business plan securing a higher score than other forms of business plan.

Expressions of interest must be submitted by 12 June.

JOURNAL : Farmers Weekly

The loss of neonicotinoid seed treatments means that cereal growers will be up against it when it comes to barley yellow dwarf virus (BYDV) control in the future, according to one expert.

The EU has moved to ban three key neonic insecticides for use as seed treatments for all crops outside glasshouses by the end of this year.

These three insecticide actives – imidacloprid, clothianidin and thiamethoxam – have already been banned for use in flowering crops such as oilseed rape since 2013, but now the ban is being extended to key crops like winter cereals and sugar beet.

See also: Farm’s self-imposed insecticide ban leads to healthier crops

For wheat growers, there is one last season as the actives will be available until 19 December.

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However, the concern is that BYDV could proliferate after the use-up period has expired, according to Dr Steve Foster, entomologist at Rothamsted Research.

“Seed treatments have done a good job at protecting crops against insects,” he says.

“They have given up to six weeks protection at a time when the crop was most vulnerable, helping to limit the spread of the disease and allowing growers to manage their autumn workloads.”

Virus levels

There are three aphid species that are responsible for the transmission of the virus in both wheat and barley in the autumn, he says.

“We can screen them for virus levels, so we know that around 10% are currently carrying the virus, which is low.

“However, it’s not clear what will happen to those levels in the future. Using the oilseed rape example, we do know that the amount of turnip yellows virus has gone up to 80% in the peach potato aphid population.”

Without alternatives, there is every reason to believe that virus levels in aphids will rise over the next five years, just as they have in aphids of brassica crops, he warns.

The grain, bird cherry-oat and rose-grain aphid species can all transmit BYDV – so there’s a need to control all three, especially where aphids are still flying into cereal crops in mild autumn and winter conditions.

“After the winter of 2018, growers will only have pyrethroids to fall back on,” says Dr Foster.

“There is already target-site resistance to pyrethroids in the grain aphid, so it’s really important to keep rates up. We are right on the edge of resistance becoming a major issue.”

Monitoring is crucial for two reasons, he continues. “We need to know about pest numbers, so that we only spray when thresholds are breached, and we need to keep a track of the spread of resistance.”

The other consideration for growers is that pyrethroids aren’t great news for beneficial insects, so their use should be considered carefully.

“There are some new insecticides on the way, but they won’t be here soon. For now, we are very limited in our choices.”

Late drilling

Drilling later is one option, as it avoids the crop being exposed when most of the aphids are flying, stresses agronomist Jock Willmott of Strutt and Parker.

“It’s fine to do that with winter wheat, but there will still be a problem in winter barley,” he reports. “Barley crops need to be in the ground by the end of September.”

Temperature will also have a bearing, as aphids will continue to move into crops if it is mild, even into December.

“They can’t survive at very low temperatures below freezing, but the crop does give them some insulation and protection from the cold.”

Five ways to protect against BYDV

Consider later drilling

Delayed drilling will minimise BYDV infection in most years. Success will come down to seasonal conditions, as aphid flight, population development and movement within the crop is dependent on temperature.

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Monitor crops

Use alert services to understand the number of aphids flying in the autumn and keep a record of temperatures.

Spray insecticides where necessary

The only option where aphids are at or above threshold, pyrethroid insecticides are already affected by resistance in some aphid species. Use the full recommended rate and only spray where necessary.

Cultivations

Green plant material left between crops can act as a 'green bridge' and help aphids colonise new crops. Cultivations can be used to bury these materials and create a clean start, although they may also have an effect on populations of beneficial insects.

Alternatives

In the future, there are likely to be BYDV-tolerant varieties of barley, with plant breeders working hard to bring them to the market.

The effects of BYDV

The grain aphid and bird cherry-oat aphid are the main vectors of BYDV, which is most damaging when young plants are infected in autumn.

Infections cause leaf yellowing and stunting, initially confined to single plants scattered randomly in a field but later developing into distinct circular patches, sometimes merging into extensive infection as secondary spread occurs.

JOURNAL : Farmers Weekly

The EU's top court has upheld Brussels' partial ban on neonicotinoid pesticides, rejecting legal challenges from agrochemical companies Bayer CropScience and Syngenta.

In December 2013, the European Commission (EC) announced a ban on the use of three neonicotinoid pesticides after scientists linked their use with harm to bees.

The ban covered the use of the three actives, Bayer's imidacloprid and clothianidin and Syngenta's thiamethoxam, for use on flowering crops considered attractive to bees, such as oilseed rape, maize and sunflowers.

See also: Can sugar beet survive a future without neonicotinoids?

Last month, EU member states extended the neonics ban to cover all outdoor crops, including sugar beet.

Bayer and Syngenta had launched a legal case at the EU's General Court (GC) challenging the EC's 2013 partial ban on neonicotinoids.

But the GC ruled the commission had correctly applied its "precautionary principle", which "gives precedence to the requirements relating to the protection of public health, safety and the environment over economic interest".

Chemical giants react

Syngenta said the court's ruling was "disappointing and unfortunate".

"We stand by our past decision to challenge the EC's decision-making process concerning thiamethoxam, as it relied on a hypothetical risk to implement partial restrictions, on neonicotinoids, outside legally approved regulation," said Syngenta, in a statement.

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Bayer said it remained “convinced of the safety of its products when applied in accordance with the label instructions”.

The company said it will review the verdict in detail and assess its consequences and potential legal options.

Older chemistry

Both companies have warned banning neonics will result in growers using older chemistry which could be more harmful for the environment and pollinators.

The Agricultural Industries Confederation (AIC) expressed disappointment at the ruling and said it firmly believes in an approval system that is based on scientific evidence, independent review and an assessment of impacts, rather than politics.

“Effective modern crop protection products are an essential part of meeting UK government's drive to raise productivity while enhancing the environment,” said Hazel Doonan, head of AIC’s crop protection sector.

But Greenpeace welcomed the decision as a victory for bees. Its EU food policy adviser Franziska Achterberg said: “The ruling sets the EU’s priorities straight – its primary duty is to protect people and nature, not company profit margins.”

In a separate ruling, however, the GC annulled measures restricting the use of BASF’s pesticide fipronil, since they were imposed by the EC in 2013 “without a prior impact assessment”.

JOURNAL : Farmers Weekly

Here on the Machinery desk at Farmers Weekly we love a farm invention. Every year our Farm Invention competition is flooded with entries from farmers who have come up with clever solutions to everyday problems.

We're not alone, either – our friends at Farm Show Magazine in the US regularly serve up 40 pages of wacky, practical or just plain brilliant ideas from individuals and small companies, covering everything from combine attachments to homemade ride-on lawnmowers and animal incinerators.

To get a flavour, the magazine's editor, Mark Newhall, sent us a selection of the best.

See also: Three years of highlights from the Farm Inventions competition

Combine header uses air to reduce seed losses

Header specialist Geringhoff has developed an integrated air system option on its range of TruFlex Razor draper headers, which is designed to minimise losses as the cutter bar comes into contact with the crop.

Key to this is a stream of air flowing across the cutter bar that carries seed on to the draper belt and into the combine. Geringhoff marketing manager Joel Dennis says this innovation has cut field losses to almost zero.

The system captures grain that might otherwise fall to the ground and be left on the field surface, to chit and grow.

A distribution tube extends across the back of the header platform, feeding air into smaller tubes that reach down to the knives. This helps to gather a majority of the grain, even in over-ripe crops where seed shattering is inevitable.

It fits to the company's 10.6m or 12.3m headers, which are different from all other draper models in that they have a flexible frame, cutter bar and reel that allows them to follow uneven terrain.

The cutting bar can flex up or down by 12in across the full width of the ground-hugging header to gather lodged and small-seeded crops, with height control allowing each frame section to follow contours independently.

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Powered pickup tailgate cuts out lifting

Having an extra pair of hands to help you shift heavy loads on to the back of a pickup can save your back – but also cost you money in wages.

However, a new electric tailgate made by Handy Gate uses the existing tailgate and power from the truck's standard seven-pin trailer plug to easily raise loads from ground level to the pickup bed.

The unit comes with a 10in floor extension to accommodate the two tall lift assemblies which are fitted in place of the tailgate's hinges, allowing the tailgate to hinge open and shut as normal.

Each lift unit is operated by a PCB motor, with an on-off switch located on top of the assemblies. Dual motors keep the tailgate level, with each assembly working from a screw shaft with ball bearings that roll along the threads.

According to the company, the tailgate lift can easily lift loads up to 450kg, which makes it ideal for moving generators, motorcycles, wacker plates or multiple chemical cans, along with other materials.

The unit doesn't touch the pickup's bumper or require any modifications to the body and can be fitted in minutes using only a screwdriver and ratchet, says the firm.

The tailgate lift will fit all US Ford, GM, Chevy and Dodge pickups under nine years old and costs \$2,299 (£1,646).

Shear-bolt monitor keeps tabs on cultivator tines

A new monitoring system automatically detects broken shear-bolts on cultivating legs and lets the operator know instantly when one snaps and needs replacing.

Precision Ag 360, based in Hancock, Minnesota, introduced its retrofit Shank Patrol monitor at the recent Iowa Power Farming Show in Des Moines.

The patent-pending system consists of an in-cab LED monitor, wire harnesses, mounting brackets, sensors and magnets. It can be installed on conventional cultivators or muckspreaders that have shear-bolt protection.

A simple bracket bolts on to each leg along with the sensor, magnet and wiring, so no fabrication or welding is necessary. The sensor detects when a leg is out of its correct position and shows a lit LED and an audible alarm on the in-cab monitor. Handily, once you install a new shear-bolt the system automatically resets itself.

Unit price is specific to the model and number of rows but, as a guide, a system for an 11-leg cultivator should be less than \$5,000 (£3,580).

Electronic depth control kit offers wireless control

A new electronic depth control kit made by Graham Equipment, based in Sterling, Colorado, uses an electric actuator and self-contained hydraulic cylinder to offer more responsive and accurate pressure than using conventional springs.

The unit can be retrofitted to any planter, slotting into the place of an existing spring. It contains 4in actuators that pressurise the hydraulic cylinders, creating the downward pressure.

If the kit is used through the firm's Command Pro touchscreen monitor the system can be controlled wirelessly using the same power supply, with a control board relaying information to the cab screen.

We're told that each system can offer more than 450kg of pressure and the responsive actuators can alter this by up to 45kg at a time.

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The company is releasing the wireless electronic depth control kit this spring. It retails at \$1,200 (£860) per row, or \$2,300 (£1,650) per row with the firm's electric planter drive kit.

Telescopic gate adjusts to multiple openings

An adjustable opening gate made from galvanised steel tubing could be just the space saving device needed in cramped older dairies or lambing pens.

Sturdy Built, based in Denver, Pennsylvania, makes gates that have an extendable end to adapt to multiple widths, so one gate can be used to shut off different sized gaps.

Gates are available in widths up to 20ft and are built to order at different heights and widths, with galvanised tubing used because it has a higher strength-to-weight ratio than other materials.

They mount on standard brackets so no welding is required.

Wireless fertiliser blockage sensor keeps drills running

A new wireless flow blockage sensor installed on Montag's air delivery applicators is designed to monitor the placement of fertiliser on a seed drill.

Developed in Brazil by J.Assy, the Visum wireless flow blockage sensor was on display at the Iowa Power Farming Show in Des Moines, where it was installed on a Montag granular fertiliser applicator hooked up to a strip-till drill.

The donut-shaped monitor is installed in-line on each row and contains a sensor that sends out radio signals, powered by a lithium-ion battery. A rubber coupling on either side of the monitor clamps on to the machine's hose, creating an air-tight seal.

"It's virtually maintenance-free, which makes it much more reliable than wire-type monitor systems," says William Montag of the family-owned company based in Emmetsburg, Iowa.

"The sensor is on only when it senses motion. When fertiliser stops flowing past it, a monitor in the tractor cab beeps and shows which row isn't performing," says Mr Montag.

"The battery is designed to last for up to 2,000 hours."

He says the monitor has been used primarily to apply dry fertiliser in strip-till and no-till applications.

Under-blade sweeps break subsoil pans

Al Hemerson's new Finish Line Sweeps solve a problem that farmers may not even realise they have.

Modern cultivators and shallow subsoilers might lift and till the soil, but they also compact the soil below the working depth, he says. This resulting dense soil layer slows root development for deeper-rooting crops such as oilseed rape.

Finish Line Sweeps have a knife blade on the bottom of the tine that fractures the soil below just as the point and wings disturb the soil above.

The under-blade cuts a path 70mm deep, which is enough to break the compacted layer and allow the hair-like roots to penetrate through.

Mr Hemerson says an upside-down jet aircraft's tail is the best way to describe the sweep's under-blade. Indeed he got the idea when driving past an airport.

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"The backward-sweeping angle fractures the density layer, but it also slides up and over underground large obstacles without a problem," he says.

Mr Hemerson tested the design on his John Deere 725 soil finisher and saw immediate results with vertical relief patterns in the soil. After getting a patent, he shared the idea with Wiese Industries.

They quickly adapted the concept to their Viper bolt-on sweeps, which are currently priced at \$20 (£14).

Wheeled workshop is fully loaded with tools

Glen Wasmuth has a built a wheeled workshop that allows him to transport all his tools around the yard instead of moving the machine to the tools.

His wheeled treasure chest is filled with tools of all sizes, from spanners and grinders to a cutting torch, drill press and welder, along with a selection of machine parts.

The worktop is made of 9.5mm steel and measures a huge 762mm by 1,820mm. The whole thing is 3m long and weighs more than a ton, but can be wheeled around the yard by one person, with the front axle spinning by 90deg to help with corners.

The front end has a 1.8m towbar with 8in wheels salvaged from a combine pickup reel, while the rear axle rides on 12in wheels from a John Deere weeder.

The drill press and cutting torch are mounted over the front axle, as are drill bits and a propane tank for the gas torch. The moveable workbench has its own circuit breaker box with individual breakers for the welder, 5hp compressor and circular saw.

A 20-drawer mechanic's chest holding parts and tools sits at the rear end of the work area, with more drawers beneath the work surface.

An adjustable shop light mounted over the work surface makes sure jobs are well lit, while a rack over the mechanics chest carries welding helmets and angle grinders.

JOURNAL : Farmers Weekly

Britain's biggest flour miller, Whitworths, is urging wheat growers to produce very high quality grain which could replace imports and help shield them from the uncertainties of Brexit.

The privately-owned group is looking to substitute German and Canadian imports, and so reduce the 500,000t annual need for very high specification wheat to make wholemeal loaves and bagels.

New bakeries currently being built in the UK are looking for 14%-plus protein wheat, so the miller is appealing to growers to try to meet home needs rather than growing a mountain of feed wheat for export.

Raich Growdridge, purchasing director at Whitworth Brothers, warns that wheat imports from the European Union may become more expensive after Brexit, so there is a clear opportunity for UK growers.

"We would love this wheat to be grown in the UK. If we ever see 14% domestic wheat it does not show good functional protein," he says.

The company has linked up with independent plant breeder Bill Angus, grain trading giant Glencore and agronomy group Agrii to look at a Hungarian wheat variety to try to meet this need.

See also: Wheat grower's 6-point plan to hitting top milling grade

Bread basket

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Mr Angus, who selected the variety for the UK market, sees it as a wheat for East Anglia, the bread basket of the UK, with its high sunshine levels and dry climate, but it also could be grown south of a line between the River Humber and River Avon at Bristol.

"It has been test baked with three independent bakers over three years with positive results, showing surprisingly good hagbergs and strong protein," says Mr Angus.

Four farmers are currently growing the variety, named Mv Fredericia, with an enlarged group of growers set to drill 1,000ha this autumn, and then the seed will be more widely available next year.

Whitworths, which mills 1.3m tonnes of wheat annually at its 13 mills – including Whitworth Brothers and Carr's Flour Mills – has seen little of the variety, but Mr Growdrige says it shows definite promise to fill the industry's need for top quality wheat.

"We have seen limited quantities of the variety so far, but it has baked at least as well as German wheats," he says.

Bakery demand

Mr Growdrige adds that the arrival of Aldi and Lidl supermarkets has shaken up the UK baking sector, with bakery groups that supply the two retailers from continental Europe moving to Britain. The firms are currently building two new plants and have 3-4 more in the pipeline.

These bakers are looking for wheat at 14% protein, hagberg 300 and specific weight 78kg/hl, compared with standard UK millers' demand of 13% protein, hagberg 250 and specific weight 76kg/hl.

Mr Angus's Hungarian variety may not hit this top quality, but the key will be protein functionality and how it bakes, and so help replace some of the German and Canadian imports which are priced at about £10-30/t over standard UK milling wheats.

Qualities Whitworths is looking for in milling wheats

Consistency

Protein

Gluten quantity and quality

Functionality

Ideally a good specific weight

Standard Class 1 – 13% protein, 250 hagberg, 76kg/hl specific weight. In most circumstances this is perfectly adequate

Higher specification – 14% protein, 300 hagberg, 78kg/hl specific weight

Focus on quality

James Maw, managing director of Glencore Agriculture UK, also urges growers to focus on quality wheats rather than feed wheat, as he does not see a big future for exports of these feed grains.

"Growing this type of quality wheat gives more growers more opportunities as they are closer to the end user than those in the middle of Germany or the Canadian prairies," he says.

Currently, German elite or E wheats come into the UK tariff-free, while Canadian hard red spring wheat also comes into UK tariff-free if over 15.2% protein, or with a 90/t tariff if under this level.

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After Britain leaves the EU next year, it is unclear what, if any tariff, will apply to UK imports from EU nations like Germany and to non-EU nations like Canada.

With Britain importing about 22% of its annual milling wheat need, or 800,000-900,000t out of the total requirement of 3.7m tonnes, Mr Maw says farmers need to be focused on growing wheats that the market needs.

"If we are importing 300,000 to 400,000t of German wheat, why not grow it on our doorstep," he says.

Risks from Brexit

Growing this type of wheat will help growers manage the risks from Brexit and also reduce the carbon footprint of wheat production, adds Mr Maw.

The tie-up between Glencore and Agrii could be similar to that supplying spring malting barley of the variety Explorer at a higher nitrogen content than traditional to brew Budweiser beer, which currently amounts to 75,000t per year.

Mr Angus and Agrii will be working out an agronomy package to manage the variety to yield a modest 8-9t/ha and get it close to the high milling specification.

The variety is ideally late sown at the end of October, is early to harvest in late July and is probably 5% lower yielding than milling mainstay variety Skyfall.

"Early maturity will always lead to lower yields, you can not compare Usain Bolt with Mo Farah," he adds.

Hungarian variety

Although some German wheats grown in the UK have been weak-strawed and susceptible to UK-specific diseases such as septoria and yellow rust, this awned Hungarian variety is showing generally good disease resistance as it was bred in a country with low fungicide use, says Mr Angus.

He suggests growers should monitor the variety for mildew, and fast-developing brown rust late in the season, while lodging could be an issue in thick crops. It has a good septoria resistance and a specific weight to match top-performer Costello.

The variety is in national list trials but will not go into recommended list trials, as Mr Angus argues it will not fit well into these trials as it is very early maturing at -4, compared to traditional early variety Cordiale at -2 and old favourite Diego at 0.

Another big flour miller, ADM, is encouraging farmers to grow the German E wheat variety Montana bred by KWS with a target to produce 14% protein wheat.

Disease ratings from national list trials for Mv Fredericia

Mildew - 6

Septoria - 6/7

Yellow rust - 8

Brown rust - 6

Fusarium - good

Why the name?

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All varieties from the Hungarian breeder Martonvaras are prefixed with Mv, while Federicia was the name of the first pirate radio ship transmitting Radio Caroline in the 1960s, which shattered the BBC radio monopoly and changed the world of radio.

Current crops

Steve Corbett, senior agronomist at Agrii, says 23.3% of certified winter wheat seed currently in the ground is of Group 1 milling varieties, nearly double that of four years ago. But this has not particularly helped the millers as much of it does not reach milling standards.

Top varieties being grown currently are Skyfall, Siskin, Graham, Crusoe, Costello and Kerrin, with Skyfall and Crusoe being Group 1 milling varieties and another miller Zyatt is seventh.

In Agrii trials, the Hungarian variety along with old milling favourite Soissons and Crusoe gave the best protein levels, while it performed best for yield and grain protein at a relatively modest nitrogen level of 200-250kg/ha.

In competition against blackgrass, it came top alongside Bennington, emphasising its usefulness in combating the grassweed.

"The speed of growth in the spring is impressive as it sees strong growth before the blackgrass wakes up," says Mr Corbett.

JOURNAL : Farmers Weekly

Pests are particularly troublesome during establishment, as small oilseed rape plants are very vulnerable to attack and severe infestations can wipe out parts of a field.

All too often, oilseed rape is emerging in dry conditions, which slows growth and gives pests more time to inflict feeding damage.

An integrated approach to pest control, using more than one technique, is the best way to minimise attacks and ensure crops survive the early onslaught.

Neonicotinoid-treated seed cannot be planted, following the EU's ban on such products on all outdoor crops.

See also: Oilseed rape variety proves its worth in charlock-infested field

1. Slugs

Germinating oilseed rape is extremely vulnerable to feeding by slugs, with the grey field slug being the most common problem.

The most damage is done to seedlings, as the growing point of a germinating oilseed rape shoot is above the ground. Plants remain susceptible right up until the four-true-leaf stage.

As a result, oilseed rape crops should be monitored regularly for slug damage. Estimating the size of the slug population present should be done in the field with refuge traps, placed before cultivation when the soil surface is damp.

These traps should form a cover of about 25cm in diameter, with a small amount of bait (such as chicken layers' mash) underneath each one.

Nine traps should be set out in a W shape across each field where it is less than 20ha – increasing to 13 on the biggest fields.

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Traps should be left overnight and examined early the following morning, before it warms up. If no slugs are found, trapping should continue until crops are beyond the vulnerable stage. If there are four slugs per trap, there is a risk to the following oilseed rape crop.

Risk factors

Moisture and temperature – the activity, survival and reproduction of slugs are dependent on temperature, moisture, light and soil structure. Slugs are active between 5-20C.

Soil type – slugs are more abundant in heavy soils

Previous cropping – slug damage is greater after leafy crops, where soil conditions are moist.

Crop residues – crop residues and farmyard manure applications provide slugs with a source of food and shelter.

Cultivations – open cloddy seed-beds allow slugs easy movement and provide more shelter. Direct and delayed drilling often increase the risk of slug damage.

Cultural control

Seed-bed preparation and quality has an important role to play in the control of slugs.

Cultivations will increase slug mortality, while firm seed-beds reduce the pest's activity by making it harder for them to move around.

A fine, consolidated seed-bed is essential for the protection of seedlings. It enables the seeds to germinate quickly and the plants to grow rapidly through the vulnerable establishment stage.

Chemical control

Applications of slug pellets are used to control slugs. These should always be used in conjunction with cultural control methods.

Pellets have to be ingested by slugs to cause death, so their palatability and durability in field conditions matter. Large slugs need to ingest more of the active substance than smaller ones.

Broadcasting is the best method of pellet application, especially when it is used in combination with fine, firm seed-beds. This action should be done as soon as possible after drilling. Pellets mixed with seed at drilling are less effective in fine seed-beds because they are not available to the slugs.

There are two active ingredients used in the manufacture of slug pellets:

Metaldehyde – a selective molluscicide which acts on slugs by inducing excessive secretion of mucus. Metaldehyde pellets are subject to best practice restrictions and guidelines, as the active ingredient is often detected in water above EU standards. For more information on the latest guidance, visit www.getpelletwise.co.uk.

Ferric phosphate – an alternative to metaldehyde with no restrictions on its use, ferric phosphate can also be used in organic production. Once eaten, slugs quickly stop feeding and die within three to six days, often going underground.

As a result, the effectiveness of treatment should be measured by the decrease in feeding damage, rather than by counting dead slugs.

2. Cabbage stem flea beetle

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Cabbage stem flea beetle is widespread in the UK. The adult beetles are about 5mm long, shiny black in colour with a hint of green/blue.

These beetles migrate into crops during emergence and feed on the growing point, often destroying the plant.

They then bite “shotholes” in the cotyledons and early true leaves. Eggs are laid at the base of plants in the soil, with newly hatched larvae boring into the leaf petioles and later into the main stems.

Risk factors

Air temperatures above 16C are favourable for adult beetle migration, so a warm autumn will favour egg laying and early hatch.

Slow growing crops, due to a lack of soil moisture or a cloddy seed-bed, will be less vigorous and are more prone to being eaten.

Monitoring

The numbers of adult beetles emerging from the soil in the summer can be monitored to assess the risk.

Checking beetle numbers in the previous crop's harvested seed, looking for signs of damage to volunteer oilseed rape plants and using water traps to check for numbers of active beetles are all effective.

Without neonicotinoid seed treatments, the only control option for growers is the use of pyrethroid sprays. However, resistance to the pyrethroids in flea beetles has been confirmed, so they often provide little or no control.

Where they are to be used, pyrethroid sprays should only be applied where there is evidence of high pest pressure or if thresholds are exceeded.

Where adults have eaten over 25% of leaf area at the cotyledon-two leaf stage or over 50% of leaf area at the three-to-four true leaf stage should sprays be used at full recommended rates.

3. Pigeons

Pigeons can appear all year in large flocks, posing a particular problem in the winter.

Pigeons graze on developing oilseed rape crops and will often strip leaves right down to the main veins. Where meristems are damaged, the plant compensates by producing additional lateral shoots from the base.

Damage can be uneven across a crop, causing patchy spring development and inconsistent plant height and maturity.

The best form of control is a well-established, vigorous crop, which limits their ability to land and feed. If crop establishment is patchy, a combination of shooting and the use of bird scarers can be used to reduce feeding.

4. Other Pests

Peach-potato aphid, or *Myzus persicae*, is the main vector of turnip yellows virus, which can decrease yields by 30%.

Aphids arriving in oilseed rape crops in the autumn transmit the virus, so a well-timed spray can be used to control them.

There are recommended varieties with resistance to turnip yellows virus, so these can be grown where high levels infection are expected.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Leaf miners can infest the first developing true leaves, causing unsightly mines. They do not justify insecticide treatment.

Rape winter stem weevil adults lay their eggs on petioles close to the stem, with the larvae then feeding within the stems over the winter. There are no thresholds for this pest, which only affects local areas.

The role of companion crops in pest control?

There's plenty of anecdotal evidence to suggest that companion crops have a role in keeping pest numbers down and reducing the need for insecticides.

Whether that's due to a dilution effect, or that they confuse pests, remains to be seen. They may also have a barrier effect, preventing pests from getting to emerging rape plants – such as limiting the landing sites for pigeons.

Under severe pest pressure, they are unlikely to be a total solution. But for a very low cost and minimal effort, they are already providing benefits on many farms.

JOURNAL : Farmers Weekly

A tractor driver is lucky to be alive after a three-vehicle horror crash involving a stolen RS Ford Focus.

The distinctive white Ford Focus RS Mk2 was in a serious collision with a green tractor and a blue Peugeot 207, in Great Barr, north-west Birmingham, West Midlands, on 1 June.

The tractor overturned in the collision and was seriously damaged after sliding on its side.

Warning: Video contains some swearing

Its windows smashed and glass showered on to the road.

See also: Read the latest news and features on farm health and safety

Incredibly, the tractor driver walked away from the wreckage.

He was treated by paramedics for cuts to his back and head, given pain relief and sent to Sandwell Hospital for further checks.

The driver of the blue Peugeot was uninjured.

Following the crash, the occupants of the stolen Ford fled the scene.

Police are still hunting for the offenders.

Eyewitnesses said the white Ford was travelling well in excess of 100mph when it collided with the tractor and Peugeot.

Stolen Ford

Andrew Shaw, a plumber from Epsom, who owns the Ford, said it was stolen from The County Hotel in Walsall on 23 May – just two miles from the crash scene.

He told Birmingham Live: "I've lost my pride and joy, the car's worth about £30,000 and, after spotting the video on Facebook last week, I knew straight away that it was my car.

"They've smashed into the car and probably used a sensory card, like a fob which has been copied to steal it.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"They also emptied the contents of my car and dumped it on a lady's front garden nearby, who then called my office off the back of finding my work diary."

He added: "I've worked so hard for it – you can't have anything nice anymore. Not only that but the worst thing about it is they could easily have killed someone."

"The guy in the tractor is lucky to be alive. They clearly couldn't handle the car and just ran off."

Police appeal

A spokesman for West Midlands Police said: "We were called to reports of a multi-vehicle collision involving a tractor in Chapel Lane, Great Barr at about 12pm on Friday 1 June."

"We believe a number of people may have left the scene. Enquiries are ongoing."

"No one is believed to have suffered any serious injuries. If you have any information, please contact us on 101, quoting log number 1020 of 1 June."

JOURNAL : Farmers Weekly

Arable farmers have driven an increase in sales of new tractors and agricultural equipment this year after strong grain prices helped improve profitability.

Figures released by the Agricultural Engineers Association (AEA) show there has been a 5% rise in new tractor registrations in the year to date compared with 2017, with the biggest increase in sales coming from tractors over 180hp.

A total of 1,222 tractors over 50hp were registered last month, as wheat prices stood more than £10/t higher than the previous year and milling wheat some £20/t higher.

See also: Ultimate guide to buying a tractor 2018

This was the highest May sales figures since 2014 and brought the total tractor registrations for 2018 to a healthy 5,343.

Tractor sales are a key benchmark of the health of the agricultural economy as they closely track farming income, said AEA economist Stephen Howarth.

Last year's improvement in dairy farm profitability was mirrored by an increase in registrations of new tractors between 120-180hp, as well as an increase in sales of grassland equipment.

But this year the biggest improvement in sales has been from tractors over 180hp, suggesting it is the arable sector that is the most willing to invest in machinery, with sales of arable equipment also improving.

The increase in sales comes despite an increase in the price of tractors, with manufacturers blaming the weak pound and legislation changes, although some customers are questioning if increases have gone beyond these justifications.

The most recent price-affecting rule changes were the European "Tractor Mother Regulations" which came into effect on 1 January 2018 and set higher safety standards for all new tractors in the EU.

Mr Howarth said this meant dealers rushed to register 600-700 new tractors last December before the rules came into effect in order for them to fall outside of the legislation's scope.

Despite being registered in 2017, many of these will have been sold in 2018 and will have been in addition to the rise in registrations this year meaning the growth in sales will be higher than the official estimate of 5%.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Second-hand market also strong

Demand in the second-hand tractor market also shows no sign of abating according to Simon Wearmouth, partner at Brown & Co, despite an increase in machinery auctions happening across the UK.

He said additional throughput in the tractor and equipment market have not dampened the value of good-quality items because more farmers are looking for a decent second-hand kit rather than buying a high-priced new machines.

However, the profile of overseas buyers was changing despite the value of the pound still making second-hand kit an attractive option for customers with euros in their pocket.

Mr Wearmouth said they were seeing fewer eastern European customers coming in for poorer-quality kit than a couple of years ago when many machinery yards were practically cleared out, but the demand for higher-quality equipment was still strong.

JOURNAL : Farmers Weekly

The future of the agri-food sector after the UK leaves the EU was under scrutiny in Parliament on Wednesday (6 June) as, Liam Fox's number two, Greg Hands MP appeared before the Environment, Food and Rural Affairs select committee.

The international trade minister was quizzed on prospective reductions to UK food and welfare standards, the prospects for the British sugar industry, future free trade arrangements, tariff rate quotas (TRQ) and the performance of his department.

Here's what he said when asked:

Will the UK lower food standards as part of a free-trade deal with the likes of the US?

Where does the UK stand in terms of negotiating free-trade arrangements?

How are discussions going over the division of trade-rate quotas post-Brexit?

How will Brexit influence the UK sugar beet industry?

Is the Department for International Trade prepared for Brexit?

See also: US leads opposition to UK-EU post-Brexit import quota plan

Will the UK lower food standards as part of a free-trade deal with the likes of the US?

What Mr Hands said: "The government is absolutely clear that we will not be lowering any of our food standards, animal welfare standards or environmental standards as we leave the EU.

"One of the reasons why the food and drink sector is such an exporting success is precisely because people recognise the quality of our food and drink so it would be perverse for us to do anything to bring into question people's liking of the quality of UK food and drink.

"I think a lot of sectors are really looking forward to having our trade deals and to export more food and drink in the future."

However, Mr Hands repeatedly refused to directly answer whether food produced under lower welfare standards than in the UK, such as chlorine-washed chicken would be allowed to enter under a free-trade arrangement.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

He eventually conceded: "Any imported products would have to meet UK standards. Whether it be in agriculture or in anything else."

Where does the UK stand in terms of negotiating free-trade arrangements?

What Mr **Hands** said: "We have set up 14 trade working groups involving 21 countries, however not all of these countries will lead to a free-trade agreement."

Mr **Hands** also confirmed the UK can negotiate, sign and ratify new trade deals after March 2019 but cannot bring these into effect before 1 January 2021.

He added there are no trade working group with any Mercosur nations.

"A lot of these working groups coincide with countries that have TRQ's such as Australia and New Zealand so you can see the read across to where future free-trade deals might be going," said Mr **Hands**.

How are discussions going over the division of TRQ's post-Brexit?

"TRQ's will remain in place between the UK and the EU until December 2020.

"I'm optimistic that UK would come to a positive conclusion with the World Trade Organization (WTO) over TRQ's."

Mr **Hands** admitted the entirety of some of our TRQ's such as lamb from New Zealand or **sugar** from Brazil could still come to the UK following Brexit.

Last September, the US, Argentina, Brazil, Canada, New Zealand, Thailand and Uruguay wrote an open letter stating they would not accept any splitting of current TRQ's between the UK and the EU.

"WTO is an organisation that by its very nature believes in free trade," said Mr **Hands**.

"The same members who have an interest in some of those TRQs are the same countries welcoming the UK in becoming a stand-alone member of the WTO.

"But it's a negotiation that is ongoing and in common with all negotiations that are ongoing it's difficult to provide a running commentary and it's difficult to provide absolute certainty."

See also: Why an EU trade deal could hurt beef prices after Brexit

How will Brexit influence the UK **sugar** beet industry?

What Mr **Hands** said: "Exiting the EU presents opportunities for the **sugar** industry and it is down to the government to enable an innovative and productive sector that is competitive at home and overseas."

Mr **Hands** reiterated the UK's long-standing commitment to reduce poverty through trade with developing **sugar**-cane-producing nations.

"Removal of EU **sugar** beet quotas in October 2017 is allowing British growers to move towards competing on a level playing field with other producers around the world.

We are rising to the occasion Greg **Hands**, MP

"The government committed to help the industry to further develop its competitiveness."

Is the Department for International Trade prepared for Brexit?

What Mr **Hands** said: "We are rising to the occasion. The department has gone from 50 to 500 staff working in the trade policy group.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"The department that is battle ready for those negotiations in March 2019.

"It's not just about trade deals, we can do a lot about reducing trade barriers outside of trade deals.

JOURNAL : Farmers Weekly

Tributes have been paid to a young trainee mechanic killed in an accident involving a tractor.

Neil Graham, died after the accident at a farm in County Fermanagh on Tuesday (22 May).

Emergency services were sent to Boho Road in Springfield, Enniskillen following a 999 call at 2.39pm. An air ambulance was also dispatched.

See also: Certification and staff training – all you need to know

Paramedics treated Mr Graham for his injuries, but they could not save him and he was pronounced dead at the scene.

The 17-year-old had been studying as a trainee mechanic at Portora Royal School, in Enniskillen.

'He loved the outdoors'

Paying tribute, Mark Ovens told the Belfast Telegraph his cousin was a "typical Fermanagh young farm hand" who loved his home of Garrison.

"He was brilliant, really witty and very popular. Everyone thought the world of him," Mr Ovens said.

He said the teenager was a "typical mischievous 17-year-old" who owned a pet goat and pet chickens.

"He loved where he lived, he loved the outdoors and he loved getting his hands dirty," he added.

"He was a typical Fermanagh young farmhand who worked on the family farm. He and his father Eddie were very close. Neil was the youngest of four children."

'In our prayers'

DUP leader and Fermanagh and South Tyrone Member of the Legislative Assembly Arlene Foster sent her condolences to the family.

"This is immensely sad news for the Garrison community. This was a well-known, young man with his life in front of him who had died in very tragic circumstances," said Mrs Foster.

"Our thoughts turn to Neil's family who are mourning the loss of their son.

"They will feel the pain of his loss most acutely and they are very much in our prayers in the days and weeks ahead. Garrison is a close-knit area and I have no doubt the community will give help and support to the family as they grieve Neil's loss."

The Health and Safety Executive in Northern Ireland is investigating the circumstances surrounding Mr Graham's death.

Mr Graham is survived by his parents Edward and Joy, his brother Jonathan and his sisters Cherith and Rebecca. His funeral will take place on Friday (25 May) at Garrison Parish Church followed by burial in the adjoining graveyard.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Two red Massey Ferguson tractors worth about £70,000 in total have been stolen from a farm in West Lothian.

Police Scotland is appealing for witnesses following the high-value theft of agricultural equipment in West Calder.

The incident happened sometime between 9pm on Monday 22 May and 7am on Tuesday 23 May at Longford Farm.

See also: Farmers' top tips to fight rural crime

Thieves entered a shed on the farm and stole two Massey Ferguson tractors. The first is a red 5470 model with registration number SF57 HJZ and chassis number S074034. It was fitted with pallet forks.

The second is a red 6460 model with registration number KO06 SDY and chassis number R200008. It was fitted with a red Kverneland topper at the rear.

PC Louise McReight, investigating, said: "The value of the stolen tractors is about £70,000 and we are pursuing a number of lines of inquiry to trace the vehicles and identify those responsible for their theft.

"Stealing two tractors would require a large truck and so anyone who remembers seeing such a vehicle around Longford Farm on Monday evening or Tuesday morning, or who witnessed any other suspicious activity in the area, should contact police immediately."

Anyone with information is urged to contact Police Scotland on 101 and quote incident number 1159 of 23 May, or Crimestoppers anonymously on 0800 555 111

Four balers stolen in north Somerset

Police in north Somerset are investigating the theft of four balers from farm buildings in Hewish.

The equipment, which is used to compress crops into bales, is worth an estimated £2,000.

Avon and Somerset Constabulary officer Katy Drabble, investigating, said: "We'd really like to prevent any more farmers being targeted, so please secure baler equipment where possible – particularly access to the knotter part of the machinery.

"We can offer a free marking system and also advise on security measures landowners can take.

"If you have any information on these thefts, or the whereabouts of this machinery, please call 101 quoting reference 5218104714. Or, if you'd like to remain anonymous, call Crimestoppers on 0800 555111."

The police run a Farm Watch scheme. For further details, email ruralcrimeteam@avonandsomerset.police.uk

JOURNAL : Farmers Weekly

Oilseed rape growers in Scotland and northern England could be set to benefit from the launch of two new varieties, which should deliver consistently higher yields across more difficult terrain.

Elevation and Broadway offer high gross output, good oil content and solid resistance to the crop's most destructive disease – light leaf spot. They entered the AHDB Recommended List late last year.

Both conventional varieties have been bred by independent breeder Mike Pickford who is based in the north Cotswolds and aims for varieties with high yield and consistency over a range of locations.

See also: New maize varieties offer high yields and quality

Mr Pickford believes that his varieties should allow growers to see a rise in their oilseed rape yields.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

"There's no reason why with good soils, correct sowing times, good agronomy, they shouldn't all be getting on average over 5t/ha, which is significantly higher than the national average," he says.

<https://infogram.com/north-region-osr-varieties-at-a-glance-1hxj48rjei3q6vg>

Elevation

Elevation, the first of Mr Pickford's new varieties, is the joint highest for gross output on the AHDB list in the northern region at 107%, including all hybrids and across different regions. In Recommended List trials, the variety averaged a yield of 5.8t/ha.

Clive Sutton, business development manager at DLF Seeds & Science, the company selling the seed, believes that the figures help to highlight the consistency of Elevation and says the variety offers growers a number of benefits.

"We like to believe it's a farmer-friendly variety and statistics so far show it has solid all-round characteristics. It has a good, robust agronomic package, produces short straw, good stem stiffness and its pollination provides high gross output," he says.

In terms of disease resistance, Elevation has a good rating of 6 for light leaf spot, but only 4 for stem canker.

It has a prostrate autumn growth habit, a medium to late flowering pattern, with medium maturity and has a recommended sowing rate of 70 seeds/sq m, for a target of 40 plants/sq m established.

Broadway

The second variety, Broadway, also in its first year of AHDB recommendation, has a similar gross output yield to Elevation of 107% in the northern region.

Mr Sutton highlights a few of the key benefits that growers could experience with the variety.

"Broadway is a robust variety and has a very strong light leaf spot rating, helping give growers a bit more flexibility, in terms of the timings of their sprays," he says.

It has a more vigorous and erect growth habit in the autumn than Elevation, which goes down well with growers who are looking for early ground cover over the winter period.

A further benefit of growing Broadway is its medium to late maturity, meaning the variety misses some of the late frosts experienced in the north of the country.

With good resistance to lodging, high oil content and a rating of seven for light leaf spot, the variety has the same recommended sowing rate as Elevation.

Who is independent UK breeder Mike Pickford?

Became a self-employed oilseed rape plant breeder in 1995

Breeding site based 900ft up in north Cotswolds,

Has produced 15 varieties to date for both UK and EU distribution

Elevation and Broadway are his first varieties to achieve Recommended List status

His number one objective for varieties is gross output yield

Another principle aim is to breed varieties that show consistency over a range of locations and weather

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The deaths of two farmworkers who entered a slurry tank to remove a blockage were accidental, a coroner has ruled.

The bodies of Alexander Forman, 32, and Richard Pooley, 36, were pulled from a slurry pit at Newlands Farm in Sunk Island, Holderness, Hull, on 14 December 2015.

Mr Forman, who ran the farm with his parents Robert and Susan, and employee Mr Pooley would have been overcome by toxic fumes almost immediately, a pathologist told the inquest.

See also: Walk to honour farmers killed in slurry incident

On Friday (18 May), a jury of four men and five women returned unanimous conclusions of accidental death for both men, the Hull Daily Mail reported.

Paul Marks, senior coroner for Hull and the East Riding, noted “very distressing” evidence had been heard during the inquest, and thanked both families for their “patience and dignity”.

Mr Forman’s partner, Lucy Hartlebury-Forman, recalled how she had been asked to make her way to the farm quickly, leading her to believe he was going to propose.

She said: “I thought it was an elaborate proposal plot, then I saw Susan [his mum]. She was in floods of tears.”

‘Doting dad’

Mr Forman, who was known as “Zander”, was a hardworking and a “doting dad” to their son Felix, who was just 10-months old at the time of the tragedy.

Mr Pooley was described in equally glowing terms by his partner.

Amanda Pooley had spoken to him a few hours before his death, and told how she had put the phone on speaker so he could talk to their three-year-old son Josh.

It was not established why the pair had entered the slurry pit which was situated next to a pig pen.

However, Paul Loftus, who had been a stockman on the farm at the time and discovered the men’s bodies, said he had earlier “partly cleared” a blocked pipe connecting a pig pen to the pit.

Mr Loftus had used the same ladder as the men who died to descend into the pit, but had suffered no ill effects.

Sarah Lee, a government health and safety inspector, said Mr Loftus was an “extremely lucky individual”.

Humberside Police said no one has been prosecuted in respect of either man’s death.

Tribute to farmer

Ms Hartlebury-Forman previously paid tribute to her late partner.

She told Farmers Weekly: “Alex was a great arable farmer. He always enjoyed harvest and getting in the combine. He liked being in his tractor working the land.

“He was not a risk-taker and knew of the dangers associated with slurry. Farmers may think that it will never happen to them.

“They may think that they are invincible. They might get away with it nine times out of 10. But that one time, it’ll kill you and will devastate your family.”

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Farming unions have welcomed a decision by EU farm commissioner Phil Hogan to agree a derogation for some arable farmers from the three-crop rule for 2018.

In a statement, Mr Hogan said he would agree to UK requests for EU rules on crop diversification to be relaxed following excessive rain that has delayed crop planting.

The decision follows requests from the NI Department of Agriculture, Environment and Rural Affairs (Daera), the Scottish government and Defra to exempt arable farmers in Northern Ireland and Scotland from the requirements for crop diversification under the greening provisions of the common agricultural policy (CAP).

See also: Five top tips for growing a profitable spring barley crop

Requirements will also be eased for farmers in other parts of the UK.

The derogation for arable farmers in Northern Ireland and Scotland and an easing of the rules for farmers in parts of England and Wales follows an earlier decision to propose a derogation for arable farmers in Ireland.

In Scotland, autumn plantings substantially down on the year and the cold, wet conditions this spring have worked against ground preparation and planting, narrowing the window of opportunity to plant and establish spring crops in 2018.

'Impossible task'

For many farmers, meeting the requirements of the three-crop rule has been almost impossible, NFU Scotland said.

Although now late in the planting season, the derogation may help some growers whose planting schedules have been delayed.

NFUS president Andrew McCornick said: "Although we are deep into the planting season, a derogation from the three-crop requirement may yet make a difference to some of our farmers.

"It is already so late for some parts of the country, that fallow may be a more economic option than planting."

Scottish rural economy secretary Fergus Ewing described the decision as "sensible" and said it will provide "much needed relief to farmers across Scotland".

UFU welcomes news

The Ulster Farmers' Union (UFU) said a spell of prolonged wet weather last autumn left many farmers unable to plant winter crops due to poor field conditions and the delayed planting of spring crops has left them with very few options.

UFU president Ivor Ferguson said: "This is welcome news for farmers who can be reassured that their greening payments will not be impacted on now the derogation has been agreed."

JOURNAL : Farmers Weekly

The UK repeatedly falls behind its EU counterparts in the average farmgate milk price rankings as a result of its lower constituent content of milk.

UK farmgate milk prices in p/litre have been the lowest of the six largest milk-producing nations in the EU for almost half of the past decade, according to new research from AHDB Dairy.

See also: How UK herd achieved world top 10 ranking for milk yield

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

In the 121 months between January 2008 and January 2018, the UK has come last, behind Germany, France, Denmark, the Netherlands and Ireland, 53 times (44%), topping the milk price league table in just 10 (12%) of these months.

Analysts at the AHDB say this is down to the UK having lower milk solids than its continental counterparts.

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When reranking the nations by milk price paid a kg/milk solid over the past three years, the UK rises to third out of the six countries, paying an average of £3.54/kg for protein and fat.

France leaps to the top of the table under this metric, paying £3.80/kg for milk solids while averaging just 26.72p/litre farmgate milk prices over the past three years, which leaves the French in third in the league table.

Excluding France, there is only a 1% disparity between the other five nations in price paid a kg of milk solids. However, this gap grows to 6% when examining the price paid in p/litre across the continent.

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Last week, Farmers Weekly reported that UK dairy farmers included in consultant Promar's Milkfinder costed herd sample had increased milk solids by an average of 1.14% in February 2018 compared with the same month the year before.

However, due to the UK's large domestic liquid milk market, where protein is less important, the UK continues to lag well behind its continental rivals in farmgate returns for milk.

JOURNAL : Farmers Weekly

An investigation is under way after workers were secretly filmed violently abusing pigs at one of the country's biggest producers.

Four workers have been sacked after an animal charity released shocking footage of pigs being repeatedly kicked in the head, jabbed with pitchforks and hit with gates.

Animal rights campaigners Animal Equality placed hidden cameras at Fir Tree pig farm in Lincolnshire, following an anonymous tip-off. The footage has been passed to the RSPCA to investigate.

See also: Activists target pig farms seeking to expand

The charity said one pig was left "downed" and without veterinary care for 48 hours, but it was later shot.

Workers were also filmed hitting pigs in the face and head with heavy plastic boards, spraying marker paint directly up a pig's nose and laughing about the abuse and swearing at pigs.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Warning: Video below includes graphic violence against animals

Four workers sacked

The Godfrey family, who own the farm, along with Elsham Linc, told Sky News: "We are shocked by the actions of those involved as their abhorrent behaviour does not represent our business.

"We are a family-run farm where the care and welfare of our pigs is paramount.

"We have been able to identify the four individuals in the film and following an immediate investigation their employment has been terminated."

Toni Shephard, Animal Equality's UK director, said: "The workers show complete contempt for the animals in their care and seem immune to their suffering, even when the pigs scream in pain. We demand that they be brought to justice."

Hidden cameras

Animal Equality investigators made multiple visits to Fir Tree Farm – which holds 10,000 pigs – between 1 to 27 April 2018 and placed hidden cameras in the buildings where violence had been reported.

They also documented dozens of pigs with severe tail-biting wounds, some critically infected, as well as many heavily scarred pigs and several with hernias.

The National Pig Association (NPA) released a statement condemning the abuse.

"We are clear that the actions of the individuals depicted in the footage are indefensible and should be treated accordingly," it said.

"Such behaviour is abhorrent to all pig farmers and the business involved, which has acted responsibly and immediately by terminating employment of the members of staff following a thorough investigation and is co-operating fully with the authorities.

"The NPA will take the lead in investigating what further measures can be put in place to prevent any similar incidents from occurring on British pig farms."

Third cruelty expose

This is the third time that Animal Equality has filmed workers violently abusing animals on British farms.

In 2016, a worker on Pyrland dairy farm in Somerset was filmed slamming newborn calves to the floor and kicking cows in the face just hours after they had given birth. He pleaded guilty to two cruelty charges in April 2017.

In 2012, two workers were filmed beating piglets to death with a metal bar on Harling Farm in Norfolk. Both men pleaded guilty to cruelty charges and one was sent to prison for 18 weeks.

JOURNAL : Farmers Weekly

Government has been told to develop a comprehensive food policy in order to make a success of Brexit for the food and farming industries and consumers, as outlined in a House of Lords report.

Brexit: food prices and availability, produced by the House of Lords EU Energy and Environment Sub-Committee, stresses the government has to be clearer over what it wants regarding maintaining high food and welfare standards or delivering on promises of lower food prices for consumers.

See also: Young farmers optimistic about Brexit but fear 'trade-offs'

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The report found there was a “striking difference” between government confidence and the industry’s concerns surrounding a successful outcome for agriculture and its related industries following Brexit.

“[George Eustice] may not be worried about the potential for Brexit to impact on the price and availability of food, but the representatives of the food and farming industry, importers, port authorities and consumer organisations were vocal in their concerns,” said chairman of the EU Energy and Environment Sub-Committee, Lord Teverson.

In total, 41% of UK food comes from overseas, 11% of which emanates from outside of the single market and is imported under 40 EU free-trade agreements covering 56 different countries.

Maintaining these free-trade agreements as well as achieving near-frictionless access to the single market would be essential in order to maintain the UK’s food supply and security when the transition period ends after December 2020, says the report.

<https://www.youtube.com/watch?v=cX1k4hAb7gk&feature=youtu.be>

However, the committee found even in a best-case trade scenario with the EU, with no tariffs and few customs barriers, international rules would force the UK to undertake more customs and borders checks than it does now.

Displacing EU imports with increased UK production or higher imports from non-EU countries would not be easy, according to the report, stating 30 years of declining UK self-sufficiency would take time to be reversed.

“The government has some important choices to make. They have said they want to maintain high food standards but also that they would be willing to have minimal customs checks to avoid disruption at borders,” said Lord Teverson.

Industry needs time to prepare

“We are calling on the government to set out what checks they do intend to carry out on food imports, to allow the food industry and customs authorities time to prepare and to reassure consumers that standards will be upheld.”

He added the government had presented a paradox where it would seek trade deals that secure lower prices for consumers, while UK food and farming were expected to be exemplars of high-quality production post Brexit.

“We would urge the government to consider the impact Brexit may have on food inequality in the UK: will we have a situation where high quality, local produce is available for those who can afford it, with cheaper food imported for those on lower incomes?” added Lord Teverson.

“The UK needs a comprehensive food policy, to tackle these complex issues, and we urge the government to produce one with some urgency.”

JOURNAL : Farmers Weekly

New crop wheat prices have had a volatile week after forecasts of a poor Russian harvest initially pushed up values before they fell back again amid concern over the US-China trade war.

The price hike came as the market reacted to the US Department of Agriculture (USDA) global crop forecast.

See also: Cereals 2018: Disease warning as barley seed treatments fail

It suggested a wet spring in Russia had potentially reduced the country’s crop to 68.5m tonnes.

AHDB Cereals said it meant forecasts for global wheat production in 2018-19 were down 3.1m tonnes on May predictions to 744.7m tonnes.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

This projection represents a 19% decline in Russian wheat production from 2017-18, according to AHDB senior analyst Daniel Rooney.

"Estimates suggested that European 2018-19 wheat production was also likely to be down by 1m tonnes on May estimates to 149.4m tonnes," Mr Rooney said.

"The decline follows dry spring conditions in Germany and Poland raising concerns for winter wheat," he said.

Tight supplies

Elsewhere, dry weather has seen the Australian Bureau of Agricultural and Resource Economics and Sciences decreasing its monthly forecasts to 21.9m tonnes, putting it just 0.5m tonnes above the poor production last season.

In India wheat production is expected to reach 97m tonnes, up 2m tonnes on May projections, but this still represents a 2% decline from last season estimates, Mr Rooney added.

News of the downward revisions drove up Chicago milling wheat futures (Dec-18) by £5.17/t in a single session to close at £157.26/t on 12 June.

The UK feed wheat futures (Nov-18) reacted by closing at a new contract record high of £161.70/t on 12 June, rising £1.40/t from day earlier levels, said the AHDB. And Paris milling wheat futures (Dec-18) rose £1.98/t in 24 hours to close at £164.89/t, the highest level in sterling terms since 14 July 2017.

If the USDA forecasts are accurate a decline in Russian production and associated exportable surplus could create a tighter feel to global markets, Mr Rooney added.

Price erosion

However, Gleadell's managing director, David Sheppard, commented that 24 hours was a long time on the global wheat market as the high prices dramatically fell back a day later.

"All of the gains made were eroded as talk of [US president Donald] Trump activating tariffs against China, and the expected Chinese retaliatory action, spooked the market," Mr Sheppard said.

Analysing the European market Mr Sheppard said Denmark would have a much-reduced or zero export availability due to lower plantings and drought-affected crop conditions.

This was particularly important for the UK because Denmark had been a significant source of feed wheat for the Scottish, Northern Irish and North of England markets this year, he said.

Meanwhile, forecasts of crop production from UK farmers appears split. Some grain traders have reported farmer confidence is growing as winter crops look satisfactory with good cover.

But in Scotland crops are yet to rally after the cold spring weather.

JOURNAL : Farmers Weekly

Dairy farmers who are celebrating improved profits from the past 12 months need to prepare for rising costs by paying down debt or investing in efficiency measures.

That's the message from agricultural consultant Promar, which warns that rising input costs in the next six months are likely to eat into profit margins.

Figures released this week show higher milk prices during the last financial year pushed up profits to an average of £125,000 for the farmers costed by Promar, up from an average of £43,000 the previous year.

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See also: How **Co-ops** scheme keeps calves in the supply chain

The figures are drawn from a sample of more than 200 dairy farmers spread across Britain with an average herd size of 203 cows and an average yield a cow of 8,281 litres.

Producers will also be cheered by the forecast that no significant deviations in the milk price are expected for at least the first half of the financial year.

But Nigel Davies, national consultancy manager with Promar, said farmers should make sure they are using the money to improve their business' resilience to combat rising production costs and static milk prices.

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a=e.createElement(t);a.async=1,a.id=n,a.src=s,o.parentNode.insertBefore(a,o)}}(document,"script","infogram-
async","https://e.infogram.com/js/dist/embed-loader-min.js");
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He said farmers should analyse their books to have a firm understanding of where the additional income coming into their business is being deployed, and investments that either cut costs or improve output should be top of the list for spending.

The cost of purchased concentrate feed has already risen by an average of £14/t in the year to March 2018 to £217/t, adding £10,400 to feed bills.

Additional pressure from inflation, variable costs and other overheads has also added £10,700 to the cost of production for these herds in the same period.

Four things dairy businesses need to do with their higher profits

Have something tangible to show for it – investments which improve efficiency

Understand potential tax bill – engage early with accountants

Understand debt burden – each £1,000 of debt/cow can equate to a cost of 1p/litre

Continue to compare yourself against the best – the top 25% of operators have double the profit per cow compared with the average

While farmers are price takers on many inputs, Tim Harper, senior consultant at Promar, said they can maximise the value of feed by careful monitoring of cow performance, particularly during diet transition.

This means not just testing the quality of feedstuffs, such as silage, but also monitoring how cows are performing on it, particularly lower-yielding animals, which can get less attention than higher-yielding cattle.

Slash debt

A focus on paying down debt with any available cash is also recommended in order to prepare for tighter times ahead.

Promar figures reveal the average farmer in its sample has debts of £2,483 a cow, which would equate to 2.5p/litre if paid off over 15 years at 3% interest.

Other farmers have debts of up to £5,000 a cow, which would equate to 5p/litre on the same terms.

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Investment in housing

Dairy farmer Paul Tomkins, who milks 200 cows in the Vale of York, said he has been investing additional profits in improving calf housing and feed storage facilities in a bid to lower his cost of production.

Mr Tomkins said one of the primary goals of the business is to reduce reliance on purchased feed.

"I definitely have more control over my costs than I do my income, where I am definitely a price taker. That's why I focus on reducing my costs," he said.

With input costs already edging up, he said his buying group's advice is to start buying required inputs forward now.

JOURNAL : Farmers Weekly

Dutch machinery manufacturer Vervaet has purchased a 50% share of its UK importer, J Riley Beet Harvesters.

The deal comes as no members of the Riley family are in a position to continue running the business. It was a logical move as the two family-run companies have been in partnership for more than 25 years.

See also: Root-crop chasers take the headache out of harvest haulage

J Riley Beet Harvesters was established in 1994 by managing director Jeremy Riley, and now employs 14 staff from its base in Attlebridge, Norfolk.

Since day one, J Riley has been the sole UK importer of Vervaet beet harvesters and Hydro-Trike self-propelled spreaders, supplying and servicing both new and refurbished second-hand machines throughout the country.

JOURNAL : Farmers Weekly

Summer has arrived across the country, bringing with it a host of issues for the vets in this month's Vet Viewpoint.

In this edition, vets from around the country offer advice on fly control and coccidiosis in calves and lambs. They also discuss selective dry cow therapy and we get an update on the Welsh bovine viral diarrhoea (BVD) programme.

See also: Vet Viewpoint: Sheep lameness, abortion and fluke advice

John Cammack

Glenthorne Veterinary Group, Uttoxeter, Staffordshire

Flies on cattle can cause reduced milk yields, decreased feed intakes and a rise in diseases such as mastitis and New Forest eye.

So, as we move into peak fly season, a robust control plan is needed and this should take the form of a two-pronged approach of environmental and animal control.

Aside from general hygiene, a range of treatments are available to reduce the environmental reservoir of flies, including adulticidal and larvicidal sprays, fly lamps and fly traps.

Using fly parasites that feed on the developing maggots and prevent them developing into adult flies is a novel approach to environmental control. It relies on the fly parasites being released around ideal breeding sites such as dung heaps.

Animal control relies on the regular application of insecticides, usually as pour-on preparations.

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Midges, which transmit the diseases bluetongue and Schmallenberg, will also be controlled by a similar strategy to flies.

See also: Vet Viewpoint: Metabolic profiling, abomasal bloat and grass staggers

Danielle Priestley

St Boniface Veterinary Clinic, Crediton, Devon

Many of the practice's dairy herds are autumn block calving and will shortly be considering their selective dry cow management. Therefore, we thought we would share a few reminders about why a selective approach is best.

There is no sense in giving antibiotics to an uninfected cow. In fact, if you do give antibiotics to low-somatic cell count cows, their risk of coliform mastitis in the next lactation actually increases.

Of 52 UK farms studied, those using selective dry cow management were significantly less likely to have cows developing mastitis in the first 30 days of lactation.

And protection against new infection in the dry period is much better achieved by using teat sealants and will reduce the risk by about 25%.

Roderick Dunse

Dunmuir Veterinary Group, Castle Douglas, Dumfries and Galloway

Once again, we have come through a long and wearing winter here in south-west Scotland. Persistent damp conditions have allowed coccidiosis to increasingly flourish in calves and lambs over recent years.

Those affected by coccidiosis can possibly set their watches by it and know when to expect it and when to treat.

For those of us who have not yet met coccidiosis, it is a little protozoan parasite that loves moist conditions. And if an area is overstocked, so much the better for the little blighters.

The good news is that immunity develops to coccidiosis, the bad news is it really damages the digestive tracts before calves or lambs catch on to what is going on.

Simon Wilson

Cain Veterinary Centre, Llansantffraid, Powys

Here in mid-Wales, we have recently been making extra use of the TB test by taking the opportunity to blood sample youngstock for BVD exposure.

This free test forms part of the Welsh BVD eradication project, which aims to find which herds have the active virus circulating in them and then to eradicate the disease from Wales.

Farms testing positive benefit from funding to look for persistently infected (PI) "carrier" animals. It is only by removal of these PI animals from a herd that the cycle of BVD infection can be stopped.

Hopefully, through this scheme more farms can become free from the negative effects BVD has on fertility and immunity and we can prevent the creation of more poor-performing PI animals. The scheme has certainly raised awareness of the disease in our area.

Vet Viewpoint is a regional monthly round-up of key issues from XL Vet Group.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Valtra has finally let its heavyweight S-series loose on the 400hp tractor scene and, armed with lorry loads of torque, a proven driveline and a redesigned cab, promises to unsettle a few of the traditional high-horsepower campaigners.

It was back at the tail-end of 2013 that Valtra announced the launch of its fourth generation 270hp-390hp S-series tractors, but we've had to wait until now to see any production machines in the flesh.

Issues with previous incarnations of its flagship tractor range meant the Finnish company insisted on ironing out any gremlins before bringing them to market, which is sensible stuff; except the process has taken nearly five years to complete.

However, there have been some upsides to the delay – during that period the company has added a new armrest, joystick and touchscreen computer that have the potential to position the S-series up there with the big boys.

With its sleek lines, curvy cabin and angular LED lights, the S394 certainly has the looks, but it's what's under all that trim that counts.

Muscle is provided by an 8.4-litre AgcoPower (Sisu) six-pot that can generate up to 1,600Nm of torque. That power is put to the ground by a Fendt stepless Vario gearbox.

So the driveline is pretty well-proven (some might say the Finnish power-plant is a better bet than the Deutz motor used by Valtra's green-liveried Agco stablemates) but what about the rest of the tractor?

See also: On test: JCB's 419S loading shovel brings extra muscle

Shared platform

Like previous second and third-generation S-series models, this latest version uses a common platform shared with Massey Ferguson's largest 8700 tractors.

Built at MF's factory in Beauvais, France, these high-horsepower prime-movers have the same cabin, albeit kitted out with different trim and controls.

Two critical things set the Valtra apart – it's on offer with the Finnish-firm's TwinTrac reverse-drive system and has the company's new SmartTouch armrest.

With this in mind, we thought it best to put the new tractor to the test in probably the most common reverse drive application – with a set of triple mowers.

While FW's test team might know their onions when it comes to what's going on in the wacky world of farm machinery, we're certainly not experts in operating this kind of kit, so we thought it best to take the big Valtra to some men that are.

Reverse-drive debut

It was back in the early 1990s that Somerset contractors Robert and Colin Targett started experimenting with the idea of reverse-drive mowers. Initially, they adapted an old MF combine chassis to create a self-propelled mowing rig.

It had three mowers arranged to cut 6.7m (22ft) and proved the concept had merit. But more output was required, so the next step was to find something with a bit more muscle.

Wanting to retain the visibility benefits of having the cab right over the top of the mowers and keen to keep dust and debris away from the radiators, the Targetts decided a conventional tractor running backwards was the best solution.

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They bought a 177hp Massey 8150 and sent it off to a specialist on the French-Swiss border who relocated the diesel tank, cut a new footwell in the back of the cab for the reverse drive pedals and fitted a secondary steering column which also carried the necessary switch gear for the Dynashift transmission and rear linkage control.

That did a few seasons' work, first with a set of Claas Corto triple drum mowers and later with a set of Disco mower conditioners.

The modified Massey was eventually replaced by a Fendt 926 with a factory-fitted swivel seat and steering column.

Since then, there has been a succession of Fendts fulfilling the reverse-drive role, the current one being a 2017 930.

Throughout that time the main man in the seat has been Dave Birch. There can't be many people in the UK who've spent more time going backwards in a tractor – each year he knocks down some 3000ha of grass using the firm's Claas Disco 8600 mowers in reverse. Who better to put the 405hp S-series to the test?

Silage season

It was towards the end of first cut silage that the S394 arrived at the Targetts' Somerset HQ.

With the 630-litre diesel tank brimmed and 60-litres of AdBlue on board, it was hitched up to the business's Claas mowing outfit.

We were pleasantly surprised to see that the tractor's touchscreen computer recognised the mowers almost immediately after plugging the Isobus cable into the Valtra's socket.

All looked good, until it came to working out how to hoist each of the three beds in the air independently. Usually this task is fulfilled by joystick buttons assigned to the individual Isobus functions.

Unfortunately, the S-series doesn't yet have this functionality – Valtra promises a software update will be ready for August – so we were left with operating the mowers as one on a spool-valve.

The alternative option was to lift them individually by tapping the appropriate icon on the screen. That's all good until you realise that the Isobus screen is only accessible by flicking through the display pages – it cannot be assigned to one of the quarters on the four-way split home screen. Again, the Finns say they're working on this.

In the field

With workarounds found for each of these issues, we set out for the field. Default start-off setting for the transmission finds the pedal as the master control, so a bit of right boot sets it moving and the tractor's computers work out the right gearbox ratio and amount of throttle according to load.

Given the S-series' 12t working weight, it's quick to accelerate to its 50kph top speed – a sign of things to come from the gutsy Sisu six-pot.

Knocking the lever to the right and holding it there for a couple of seconds activates the cruise control. With no real load on the engine, the stepless box quickly closes down the swash-plate pumps and eases over from hydrostatic to mechanical drive.

This does away with that trademark Vario whine and means you can settle back into what has to be one of the most comfortable, quiet cabs in the high-horsepower game.

With 2,300kg on the nose and the triples stacked on the back, it feels pretty stable on the road – the combination of hydro-pneumatic cab suspension, front axle springing and a Grammer Evolution active seat make for a particularly smooth ride.

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The cab suspension settings can also be altered in the touchscreen computer.

Once in the field it's then a case of swinging the seat around into reverse-drive position.

Even with the main steering wheel flipped right up, it's a bit of a faff to get the armrest and computer display around without clashing.

Once swiveled, the central driving position faces directly out over the mowers with a much smaller column, shuttle and wheel nestled between the driver's knees. (Unlike the Fendt that takes everything – including the main steering wheel – around with it).

It scores well for visibility, with the rear screen curving around to the B-pillars, allowing a look at the outer tips of the 8.6m-wide mowers. Whether that would be the case with a 9.5m set, we're not so sure.

Mowing duties

It's immediately clear that the triples we'd got hitched on were never really going to test the Sisu motor to the limits even in heavy, waxy crops of ryegrass.

Usual mowing speed for the Targett 930 is 13-14kph, but we got the big Valtra up to 17-18kph before there was any discernable dip in engine note.

Even then, pto revs barely flicker, which isn't surprising given it has a 90hp advantage on the Fendt and max torque comes in at a whopping 1,600Nm in boost, compared to the 930's modest 1,278Nm.

Although not necessarily to be relied upon, the tractor's fuel readout suggested the S394 was burning between 44-47-litres an hour. That's a pretty close match to consumption rates for the Bavarian prime-mover usually employed for the job.

In the cab

Driving controls are all pretty familiar, particularly the shuttle stick.

The main joystick is well thought out so, rather than standing upright, it sits horizontally and falls more naturally to hand.

Rockers for linkage, two spools and the shuttle are closely grouped but could do with a bit more differentiation to avoid any accidental mix-ups.

Cruise control is activated by knocking the stick to the right, but there's one annoying feature here – preset speeds are lost every time the driver leaves the seat.

One way to reinstate them is to go into the transmission settings page on the touchscreen. This same menu page has a slider for engine droop settings, biasing the transmission towards maintaining engine revs for pto type work or for maximum speed with minimal revs for transport.

Guidance

Steering is handled by a Trimble box on the roof, running through the SmartTouch display. It's dead easy to set up, with an "idiot-proof" Go setting that just requires you to input implement width and A/B way-markers.

Without an active sim card for a mobile correction signal, we were running on bog-basic Egnos.

This was generally fine, but missing every other bout for lazy, wide-swinging headland turns meant satellite drift became a problem as we made our way back up the field.

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Paying the circa £600 for mobile correction is well worth it in our book.

While on the subject of steering, initially we struggled to pull the tractor around in a tight arc. It wasn't until we applied a little bit of extra welly for that last turn of the wheel that the turning circle improved.

Steering with the rear-facing wheel is free and easy for almost the entire length of the ram stroke but requires that bit of extra forearm force to get it to round to the stops.

Likes and gripes

Likes

Quiet cab

Easy to navigate touchscreen

Heaps of power

Smooth on the road

Good visibility

Gripes

Gearbox loses cruise speed presets when operator leaves the seat

Can't run Isobus as part of split screen or assign Isobus controls to joystick

Awkward to swing seat round to reverse-drive position

Vital statistics – Valtra S394 TwinTrac

Rated power

380hp

Max power (with boost)

400hp (405hp)

Max torque (with boost)

1,540Nm @ 1500rpm (1,600Nm)

Engine

8.4-litre AgcoPower (Sisu) 6-cylinder with AdBlue

Transmission

Two range Fendt stepless CVT, 50kph

Pto

540E and 1,000

Max linkage lift

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5t front, 12t rear

Hydraulics

205-litres/min closed centre, load-sensing

Spool valves

2 x front, 4 x rear

Tank capacities

Fuel – 630-litres, AdBlue – 60-litres

Turning circle

16.8m

Weight

12t

Service intervals

600-1,200 hours

Price

£233,521 plus £5,412 for TwinTrac reverse-drive system

The Rivals

Model

Valtra S394

Fendt 939

MF 8740S

JD 8345R

Claas Axion 950

Case Magnum 340CVX

NH T8.410

Max power

405hp

396hp

405hp

394hp

410hp

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409hp

409hp

Base price

£233,521

£267,681*

£208,577

£243,609

£285,000

£187,762

£215,288

*Reverse drive adds £6,807

FW verdict

Power and torque were never really going to be discussion points for the new Valtra flagship – maxing out at over 400hp and with figures for torque that are close to crazy, any work we had for it was unlikely to provide a stern test.

Where the S394 really scores is in the comfort department. The cab has got to be one of the quietest of any machine on the market (you can even have a conversation over the Bluetooth hands-free system) and the ride comfort is super smooth.

The other industry-beater is the new SmartTouch screen – with it's iPhone-style swipe-ability, it's clearer and easier to navigate than even Deere's latest CommandCenter.

It was a shame that it can't run Isobus through the four-way split-screen run page and those functions can't be assigned to the joystick buttons, but they're pretty minor downfalls that we're told are set to be resolved soon.

JOURNAL : Farmers Weekly

The lead in the race for a driver-free, super-efficient arable farming utopia has been taken up by SeedMaster – a little known name in the world of autonomous agriculture but with grand plans to revolutionise life in (or rather, out of) the tractor seat.

It's called Dot and is an offshoot of the firm that made its name building mammoth drills and seed carts in the heart of the Canadian prairies.

The robotised rig was created by SeedMaster chief Norbert Beaujot, who set about the challenge of getting a driverless tractor into mainstream production back in 2014.

His design looks nothing like a normal tractor – instead it takes the form of a U-shaped tool carrier with the engine and hydraulic driveline sitting in lopsided fashion along one part of a three-sided frame.

The fourth side is formed by the implement, of which there will be about 10 to pick from initially, and dozens more once the machine is fully up and running.

See also: Diesel-electric drives offer cheaper tractor power

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Why Dot?

Canada, like many first-world nations, is suffering from a chronic lack of skilled farming labour as potential employees ditch the tractor seat in favour of the juicier wages in oil, mining and construction. And the challenge is all the greater as farm sizes swell, forcing operators to clock huge hours during peak seasons.

The widely trumpeted solution is to automate time-sapping jobs – a nice idea that has proved almost impossibly hard to bring to reality.

Mr Beaujot's aim was to build a versatile tool carrier, rather than wasting an intelligent platform by restricting its responsibilities to simply drilling or grain carting.

His early plans proved enough to convince dozens of overworked Canadian growers (and several from other continents) to put down deposits long before the finished product was ready to hit the fields.

So, while the general UK farming consensus is that autonomous tractors remain a hazy mirage on the horizon, those across the pond with more acres and tighter working windows are in no doubt the time is nigh.

Dot in a nutshell

Six units running this year

Implements will include a 36m sprayer, 14t grain cart and 9m drill

Bare unit likely to cost up to £225,000

Europe-friendly 3m version coming by 2021

How does it work?

It uses a simple but clever U-shaped carriage to pick up implements sideways (in its 3.8m-wide transport mode) before swivelling 90deg on its four wheels so the engine sits at the front during field work.

The powerplant is soon to be upgraded to a 200hp Cummins Tier 5 block, which is mounted on one side of the box section frame and sends its power through a splitter gearbox to a set of four Poclain variable displacement hydraulic pumps.

Two of these provide auxiliary power to the implements (all are oil-powered, so there's no pto) while the other two provide hydrostatic drive to the wheels.

Each leg carries a hydraulic motor – forget clutches and cogboxes – providing all-wheel power and two speed ranges topping out at 9kph and 19kph, respectively.

This layout also makes it easy to run a traction control system that directs the oil to whichever wheel has the best grip based on the disparity between the GPS and wheel speeds.

A heavier-duty walking beam axle on the side opposite the engine helps keep all four wheels biting into terra firma and acts as a counterweight to the driveline.

Dot's choice of diesel power differs from most prototype driverless tractors, which tend to run off batteries.

However, electricity adds complexity – both in manufacturing and for the **end** user – and is probably why most experiments have failed to get anywhere close to full-scale production.

Big batteries remain prohibitively expensive, don't have the capacity to deliver the huge power outputs required and are a nightmare to charge in hard-to-reach places with poor access to the grid.

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Below is a video showing how it works on the farm:

Software

The robot-grade software that allows Dot to run without a driver was developed by SeedMaster's seven developers and supported through a collaboration with guidance specialist Raven.

Manual steering with a remote-control joystick is only really needed for farmyard manoeuvres and picking up/dropping off implements, although even this can be automated once their GPS co-ordinates have been noted.

It uses existing field maps to create uncrossable virtual boundaries for the machine and its implement. The company's own software makes sense of the information provided by the map, including hazards such as rogue troughs and power poles.

From that, it picks out the most efficient route across a field, which must then be approved by the farmer before it is sent to the on-board processor.

Dot strictly follows this route and will stop dead if it's forced to deviate, before sending an alert and waiting for operator input. Owners can also keep tabs on its progress through on-board cameras, or even take the reins via long-range wifi.

Most of the basic decision-making during work is computerised, so it can do things such as reduce forward speed to climb a steep hill.

It also collects data as it works, which can be used to form variable rate application and horsepower maps as well as monitoring fuel usage and repair/maintenance indicators. In time, more sensors will allow it to process information relating to soil conditions, crop health or weed detection.

In the field

To keep purchasing decisions simple, one Dot unit is designed to be able to cover the same land area as a single combine – about 1,000ha.

Machines still require a degree of operator input – sprayer tanks and drill hoppers need filling, as does the fuel tank every 10-14 hours – but it's designed to be far less taxing than an 18-hour stint in the seat.

Nor is there any getting away from the fact that shear-bolts break and nozzles block, but there are plenty of companies developing cameras and sensors capable of detecting problems and alerting operators, who can then march out to the field with tools in hand.

The cost of the kit is tumbling too, so there's likely to be rapid progress in this department.

Carrying implements on top of the power platform also helps cut compaction by making use of their weight to benefit traction.

Typically, tractors must outweigh the drill or cultivator to help put their power to the ground, but Dot can make do with a fairly modest empty weight of less than 6t, which apparently reduces the quantity fuel and power required purely for propulsion.

Specs

Engine Cummins QSB4.5 Tier 4F 4.5-litre turbocharged diesel

Power 173hp@2,200rpm

Torque 705Nm@1,500rpm

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Top speed 19kph

Auxiliary hydraulic pump 230-litres/min@207bar

Dry weight 5,670kg

Carrying capacity 18,000kg

Transport width 3.76m

Transport length 6.1m

Height 3.66m

Fuel tank 320 litres

Continuous run time 10-14 hours

Standard tyres 500/70 R24

Price Expected to be \$250,000-300,000 (£188,000-225,000)

Health and safety

As ever, health and safety represents the biggest challenge in any type of automation.

The first objective is to get the machines working in the Canadian provinces of Alberta and Saskatchewan, where the authorities are keen to embrace any technology that cuts the number of accidents caused by overtired operators.

However, the company is bound to be engaged in a few arm wrestles with law makers in other countries, so its designers can ill afford to have a buccaneering approach to machine safety.

Default protection modes that bring it to a standstill outside of its working boundaries are standard and more safety kit will be added in due course, including radar/lidar sensors.

Developments in the autonomy of cars – particularly self-steering and automatic braking – are making the technology cheaper than ever before, but someone, somewhere will still have to be responsible.

Early models aren't set-up to drive on the roads and will need carting to sites on a trailer – but the plan is to be able to send units between fields in the future. By that time, driverless cars are expected to be well established.

Building implements

One of the perks of Dot is that it can be used for all sorts of tasks, including grain carting, cultivating, drilling and spraying.

All of the implements are mounted without wheels or hitches – instead it uses four ram-powered hooks to hoist the implement on to cone-like guides, in turn forming the fourth side of the rectangular frame.

Designing the power unit first – with a single, clear horsepower rating and hydraulic capacity – means the implements can be built to suit its capacity.

The company has assembled a range of items through sister firm SeedMaster, most of which have been adapted from standard, hydraulically driven tools.

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The 9m drill, for instance, is simply one third of the firm's mainstream product and is able to offer variable rate and auto shut-off. Other products will include a 12-row planter, 18m sprayer with 3,785-litre tank, a 12.5m land roller and 14t grain cart.

Short-line manufacturers have also been invited to build their own Dot-ready implements and it has prompted a flurry of interest from companies such as Pattison Liquid Systems, which is developing a 36m sprayer.

Although the development process is expensive, potential suppliers see Dot as a fast-tracked opportunity to get into the robotics business without relying on the world's biggest ag machinery makers, and the standardised platform should bring their production costs down in the long-term.

Other potential sectors for automation include the repetitive tasks of feeding and cleaning duties on dairy farms – a market where the likes of Lely have already had plenty of success with smaller robotic units.

There have also been whacky-sounding whispers about making a combine. Dot's carrying capacity is enough to cope with the body of a reasonably sized combine, which could be paired with a second engine to cope with the demand of both threshing and motive power.

When will it be available?

As many as six units should be up and running for this season, with another 20 scheduled for production next year and many more in the pre-order book.

The company is initially focusing on western Canada, but it hopes to have a Europe-friendly model with a 3m transport width ready within three years.

That timeline puts it well ahead of most other autonomous tractors being developed by universities and researchers, which are predominantly small, electrically powered and miles from reaching mainstream production and large-scale operation.

Surprisingly, the farm machinery market's biggest hitters have so far failed to get any sort of chokehold on the gold rush of autonomous ag. The likes of CNH, Fendt and Kubota have dabbled with driverless technology – and several others have demoed master-and-slave-style systems – but, so far, their efforts seem to be more of a bombastic marketing exercise than anything close to manufacturing.

Redesigning seeders to work with Dot

SeedMaster had to redesign its drills to make them easily adapted to run on Dot.

Traditionally, the company has used a fairly standard layout of three staggered rows of coulters to maintain decent trash flow when working on min- or zero-tilled land.

To reduce the space required for the implement, the company now uses spoked, ground-driven wheels between each coulter to walk trash through the seeder.

The 8in spokes poke a small hole in the soil as they bite in and avoid throwing soil into the other rows. This means that each coulter's packer wheel properly gauges the working depth, running level with its neighbour to complete all of the soil movement before any of the packers pass over the drilled seed.

The design also makes servicing much easier, as each coulter can be accessed from the rear rather than having to scabble around underneath the drill.

JOURNAL : Farmers Weekly

The holy grail of crimping is for cover crops to slowly die into a weed-suppressing mat, covering the soil without the use of chemical sprays or the plough.

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For an organic grower, this would allow wheat crops to be direct-drilled after nitrogen-producing cover crops, improving soil health while minimising diesel bills.

It could have wider benefits for conventional no-till farmers, especially if glyphosate were to be banned.

See also: Direct drilling is within reach for one organic grower

While many UK growers remain sceptical of the practice, one organic grower from Oxfordshire is determined to get the kit to work this season.

Watch the video and read the report below:

James Alexander is trialling a crimper roller on the cover crops growing on his 323ha organic farm near Chipping Norton, with the hope that he will be direct-drilling cereals on the farm within three years.

Chevron design

But he faces several difficulties in achieving that aim. The first challenge is finding the right design for the crimper roller.

As the owner of cross-slot direct-drill manufacturer Primewest, he has chosen to design his own crimper based on plans available from the Rodale Institute in Pennsylvania, USA, rather than rely on the offerings already on the market in the UK.

The institute's plans, which are not patented, use bars fitted in a chevron pattern across the roller to crush the crop.

Attaching curved blades in this pattern means there is always a point of contact and consistent pressure being applied to the ground, unlike designs based on straight bars, as these encourage bounce.

Mr Alexander says poorly thought-out design, rather than the process itself, is the reason for crimping's bad reputation in the industry, leading many growers to doubt that it is actually capable of working.

But crimping is a regular practice in the US.

"The ones used in the US are often this shape; it just took a bit of engineering and thinking about," Mr Alexander says.

Each blade bolts on to the chassis individually to allow for easy replacement – handy on stony Cotswold soils.

Mix of species

Unlike in the US, the UK is not blessed with a guaranteed summer.

If temperatures were consistently hot, then crimped plants would almost certainly die. But in the UK there is always the risk that unseasonably mild weather and rain will encourage regrowth.

Instead, to successfully crimp a cover crop on UK soils, Mr Alexander thinks timing is everything.

Ideally the crop should be flowering before being crimped, but finding this stage is complicated because UK growers typically opt for a mix of species in their cover crop.

In the US growers predominantly opt for single crops of rye, with one flowering time.

But the UK has followed France's example of favouring a mix of species to protect against complete crop failures.

In the past Mr Alexander has grown vetch and oats as his nitrogen capturing cover crop within his rotation, but found that oats can be crimped, mowed and disced and still grow back.

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So instead this season he is trying a mixture of rye and vetch for the first time, in the hope that rye will prove to be as easy to crimp in the UK as it has in the US.

"If you are trying to use a crimper I would only recommend using one, maybe two species. One idea could be to use a mixture with a few species which would be taken out by frost to leave just two for crimping," he says.

Vetch

Vetch usually starts flowering on Mr Alexander's farm around the time of the Cereals event in mid-June.

Normally as soon as most of the crop is in flower he would go in and cut the top off with a mower to prevent it from setting seed and contaminating the following wheat crop.

While some farmers struggle to grow a decent crop of vetch, Mr Alexander has no such problems, growing a "stonking" crop which is so big and bushy that it out-competes any weeds.

It is normally so big that it is impossible to cut with a mower in just one pass without stalling the tractor. Instead he sets the mower as high as possible to take half out before returning 10 days later to mow the rest.

It is then disced to ensure it is completely killed, then left over the summer and ploughed at the end of August or beginning of September ready for wheat.

Switching to crimping would, therefore, reduce Mr Alexander's considerable fuel bill, while also improving the soil.

This season, while the cover crops established well, they were not looking good in the wet and cold conditions of February, lacking both bulk and height.

Since then the crop has gained ground, and stood at more than 5ft at the start of June.

Early failure

His first experimental attempt at crimping at the beginning of May failed, proving to be just too early as the crop has since grown back.

"It was far too early. We left it 10 days and if had even sort of died we would have carried on crimping, but it didn't," he says.

When he next had an attempt, at the start of June, the vetch was starting to flower, but rye grains were still running clear when crushed rather than being milky, which is the ideal stage for crimping.

If the crop is crimped at the ideal time the roller will crush the stem rather than cut it, limiting the amount of water left in the crushed sections and effectively making the plant kill itself, as it carries on growing and runs out of water.

Mr Alexander thinks it should take a week to 10 days for the crop to die, depending on the weather, but after 10 days the results were mixed.

Despite expectations, the rye completely died off while some of the vetch has started to grow back, indicating that for successful crimping vetch must be in full flower, which this season was around mid-June.

A second cover crop

If the sweet spot can be found for crimping then next year Mr Alexander plans to direct drill a second cover crop through the weed-suppressing mat formed by the crimping.

"If we can get the mix right, and get it laid right, then we will put another cover crop in which will do even more good by keeping any nitrogen produced by the vetch from leaching out of the soil over the summer," he says.

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This would probably be spring beans, buckwheat or mustard, direct drilled three to four days after crimping.

Winter wheat would then be direct drilled into these non-frost hardy varieties, leaving the weather to do the job of removing the cover crop.

Mr Alexander already has plans for how to improve the design of the roller, which he hopes to have ready for next season.

He plans to move the roller from being front-mounted to trailed, as this would allow the crimper to be made wider and heavier for better crimping.

It would also distribute the weight across the crimper better, as currently there is some spring-back at the edge of the roller.

JOURNAL : Farmers Weekly

A dairy farmer is appealing to the public to help identify a shameless woman caught on camera appearing to fly-tip on his land.

Joe Tucker, 19, installed a small camera in a hedge at a fly-tipping "hotspot" by the roadside of his farm in Banes, near Bath in north-east Somerset.

The infrared, battery-operated camera, which Mr Tucker bought on eBay for £70, was placed inside the hedge at a spot which has suffered from fly-tipping incidents on previous occasions.

See also: Ultimate guide to farm security

The footage – which was filmed in April – shows a woman, aged about 55-60 years old, park up in a black Audi Q5 or Q7 4x4 estate car and open the boot.

The camera was unable to record the vehicle's registration number.

The woman nonchalantly removes a large plastic bag and chucks it by the hedge.

She returns to the boot to fetch some old wooden garden border fencing, which is also dumped.

Finally, the woman presses the button to close the boot and gets back in the car.

The discarded bag was stuffed with bark, old black roof felt and several other bags tucked together.

The woman has short, brown hair, which is greying. She is wearing a blue rain jacket with a distinctive orange zip and dark blue trousers.

Video goes viral

Mr Tucker has posted the video on his Facebook page in a bid to identify the woman. It has been viewed more than 272,000 times and shared more than 10,500 times.

Members of the public have contacted Mr Tucker to offer a name for the woman who they believe is responsible.

"We were really shocked that a respectable, middle-aged woman would think it is acceptable to commit a fly-tipping offence like this," said Mr Tucker.

"The reaction on Facebook has been amazing. It's not just farmers who are upset, but member of the public have posted messages to say they are disgusted.

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"It is not right that people think it's OK to dump their rubbish in the countryside. People need to know that this sort of reckless behaviour is totally unacceptable."

See also: Coaster-sized camera offers tighter security

It is not right that people think it's OK to dump their rubbish in the countryside. People need to know that this sort of reckless behaviour is totally unacceptable Joe Tucker, Dairy farmer

Mr Tucker says local environmental council officers have seen the video on social media and have asked him to send it to them. He also plans to forward the video and the name of the suspect to police.

"I think she should be punished for her actions. People need to realise they cannot get away with ruining our beautiful countryside," he added.

See also: Q&A: Using CCTV – what farmers need to know

Mr Tucker's family went back into dairying last year. They milk 100 Jersey cows and farm 250 ewes and 60 beef.

He thinks more landowners should install cameras on farms, especially in fly-tipping hotspots, to deter waste crime.

If you have any information on this incident, contact the newsdesk on 020 8652 4905 or email philip.case@reedbusiness.com

JOURNAL : Farmers Weekly

After developing a strong aversion for wrapping bales in the field where the baler dropped them, Geoff Eyre wasn't a fan of the somewhat tedious job of collecting wrapped rounds and steadily loading and unloading to avoid damage.

The Derbyshire farmer has about 400ha of mixed land, ranging from heather-covered hills to lowland grass fields, with a well-established agricultural merchant shop, now run by his son and daughter, and heather **harvesting** work among general farm duties.

A regular entrant to the Farm Invention Competition run every winter on the FW machinery desk, Mr Eyre says that he is at his happiest when he sees a farmer using his design and getting the most out of it.

See also: Driver's view: Lely Tornado baler-wrapper

Traileyre

His manufacturing adventure started in 1983 when he built the first Traileyre, a simple round-bale collector, which won a gold medal at the Royal Agricultural Show in 1986.

Since then, the building rights to the Traileyre have been sold to Ritchies in Scotland, which now sells around 25 units a year in sizes from 6- to 10-bale units.

The simple design uses bale spikes mounted on steel arms connected to a hydraulic ram.

See the Traileyre in action in the video and read the full report below.

Each of these arms folds down to the side of the trailer when the correct switch in the cab is flicked and spears the bale the driver has driven alongside.

Once the spike is home, the opposite spool valve control is activated and the bale lifts and sits on the trailer, with the spike keeping it secure.

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Each spike is mounted on a five-degree angle, so as the ram lifts the bale off the ground, it crowds back slightly as you would naturally do if you were using a loader, to avoid any scrubbing as the tractor continues forward.

However, Mr Eyre had a vision of a full wrapping and collecting service provided by one man and a tractor.

So he and his two workshop demons, Neil Deakin and Kieran Logon, have been beaver away in the workshop on and off since 2015 to develop a wrapping system that will outcompete offerings from the biggest grassland machinery makers.

Wrapeyre

To complement the trailer, a wrapping unit and conveyor was designed to load bales without the need for a loader.

The team constructed a curved conveyor with the idea that the Traileyre can reverse into the middle and drop a full load of six or eight bales on each side and the conveyor will cart them around to the wrapping unit.

However, the complicated curved design meant it was too costly to consider manufacturing and the most time-consuming process for the trailer driver was backing into the curve and getting the correct position for dropping off every time – something that hindered output drastically.

With the curved unit destined for the bin, the team chopped the moon-shaped end off and were left with two straight conveyor units, each able to take three bales.

The simple conveyors have been built with off-the-shelf parts from various companies either sourced on the web or in the local area.

Sprocket drives at either end rotate and have two chains on either edge, running the length of the conveyor. Grooved bars spaced in the middle grip the bale and move it down the conveyor.

The design has helped to keep cost low and replication easy.

Wrapping units

The wrappers are adapted McHale stationary units that have been lowered by around 6in to fit in with the loading height from the conveyor and avoid any snagging, which happened on the original version.

By adding a second wrapping unit to mirror the original and make use of the second conveyor, output was doubled and the tractor and Traileyre was able to drive in, drop the load and drive out forwards again in under a minute.

Power for the wrapping system comes from a stationary 27hp Lombardini diesel engine, which has two 30 litres/min hydraulic pumps serving each wrapping system separately.

It barely moves off tickover, so fuel use is considerably less than having an old tractor powering the wrapper.

It has not been plain sailing since then as there have been numerous modifications and adjustments to fit in with the new system, including feed rollers, controls units and roll holders.

Always mindful that one day he may sell the units to paying punters, health and safety is a key consideration and Mr Eyre seeks advice from the Health and Safety Executive when a major change is made.

The latest modification required is to reduce the trip hazard the conveyor causes as currently someone can tread in the centre of the moving conveyor.

Helping the bale onto the wrapper unit has also been improved by adjusting the lift arm to include a set of wheels from an old animal feed trough, so the bale is now rolled onto the table rather than being forced by the metal arm.

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Output

Mr Eyre is confident that the two wrapping units running in conjunction with a Traileyre, hauling from a nearby field, can collect and wrap 180 bales per hour at its peak output, which he claims for the capital cost of the setup, would easily knock a £1 per bale from the contracting price.

When we visited, Mr Eyre had the process running and managed to load, wrap and stack five bales in under 2.3 minutes.

Loader hours will also be reduced as it will only be handling the bale once to remove the round from the wrapper, we're told.

He is keen for the setup to be a one-man operation, with future modifications including fabricating the two conveyors to lift onto each side of the Traileyre via the bale collecting spikes.

The wrappers will be loaded separately by telehandler into the middle of the trailer, before the conveyors are connected and hoisted on the side with the roll holders folded down for road transport.

There are also plans to use a monster 600-bale roll at six layers a bale, rather than the staggered two-roll system currently employed, which can manage around 120 bales before it needs to be changed.

The roll holders are made by Film Technique in Wiltshire, and mounted in the standard arrangement, but bigger rolls will be horizontally mounted due to their weight.

Future plans

As with any new product, getting it to market and in front of prospective customers will be the biggest hurdle.

As there are still tweaks being made, the Warpeyre won't be on sale until Mr Eyre is happy with it.

However, if it stirs enough interest, he will also have to find someone to build it as he admits his farm workshop area isn't up to full-scale commercial manufacturing.

His current challenge is upgrading the electrics of the system so the loader driver stacking the wrapped bales can be in control of both wrapping units.

Once this has been sorted, the labour requirement will be halved and the cash savings will be increased.

Both wrappers will also still have manual controls, should the technology ever fail.

When farmers see the current machine, there is a mixed reaction as there are no shiny paint jobs or a well-known manufacturers' name splashed along the side, but Mr Eyre is confident that once the machines get to work, farmers and contractors will be convinced by the output.

Proposed pricing doesn't look too bad, either. The whole package is likely to sit around the £20,000 mark for two conveyors, wrappers and a Lombardini engine.

Remote-control wrappers may bump the price up further, as will having the wrapping units specially made to fit the system, which is also in the pipeline.

JOURNAL : Farmers Weekly

The next generation of farmers are young, passionate, experimental and brave – but most importantly, they are succeeding.

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The Exmoor Hill Farming Network is one organisation that has prioritised supporting young agricultural enthusiasts by creating a peer support Next Generation group.

Farmers aged 30 and under are welcome, and the group currently has 100 members, a mixture of farmers' sons and daughters and young people trying to start a career in agriculture.

Video

How it started

Two young farmers' experience

Nationwide support

Getting into micro-farming

See also: Video: Exmoor group tackles farm support and rural isolation

Watch the video and read the full report below

Creating the group

Network chairman Dave Knight explains that the idea came after a survey the organisation completed a few years ago identified that Exmoor had a high percentage of young people in farming.

"One of the key points we found is that Exmoor actually has, on average, a younger farmer age, running, on average, larger farms," Mr Knight says.

"Then within that there are a huge number of young people who are coming back into the area and wanting to farm. It was absolutely vital that we did everything we could to help facilitate them."

Creating and building the group was a challenge, network officer Katherine Williams admits, especially in an area with a tight-knit young farmers' club community, which they didn't want to infringe on.

After trialling several unsuccessful ideas, the network now runs events where it secures a farmer as host for, say, a farm walk, and then invites the local YFCs and the Next Generation members to attend for free.

"The members told me they wanted assistance with training and things like tractor and trailer tests, rather than group learning events," Miss Williams says.

"What we've found is that getting them out and about on each other's farms, or farms where they can learn from others who might be slightly older, works really well because they feel in their comfort zone."

Learning from each other

Meeting new people, learning about innovative things, putting others' ideas into practice and socialising with friends are all parts of the experience.

Sarah Eveleigh, 28, farms at West Ilkerton on Exmoor with her family. Since joining the Next Generation group she has completed pesticide training courses and her trailer test, attended farm tours and gained "all the bits of paper you need to be employable".

Getting people off their own farm and allowing them to talk about their problems is really important, she says.

"Some people, if they're just in their little farming bubble, think 'why is it all happening to me and only to me?' But if you get out and talk to people, actually everyone's had that problem this year, and it takes a bit of weight off your shoulders and you can find out how other people are dealing with things, so it's really helpful to share the load."

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Beef and sheep farmer Sam Smyth, 28, says the Next Generation group attracts enthusiastic young farmers looking for new ideas to make their farms more efficient and he believes everyone can learn from their peers.

"We have to be prepared to try new things to keep the farming industry going. It's good for us young farmers to have these opportunities," he explains.

"Due to rural isolation, without groups like this there would be a lot of talented and knowledgeable people unable to get together to share their experiences."

First-generation young farmers struggle to find tenancy

First-generation farmers Kim Sharpe and Will Giles farm beef and sheep in Minehead and joined the Exmoor Hill Farming Network two years ago.

They became members of the Next Generation group hoping to meet other young farmers, discuss their difficulties of getting into farming and learn from others' experiences.

The couple attend most of the events that network officer Katherine Williams organises, not just the ones about sheep or cattle, to broaden their farming knowledge.

They find the information evenings, which range from lambing preparation to artificial insemination and rural development, the most useful.

Ms Sharpe, 23, and Mr Giles, 30, currently rent land and are trying to get a farm tenancy, but are finding it difficult, having come "second place" a number of times. They find the network useful for making contacts, hearing about land opportunities and general advice.

Ms Sharpe says: "We're just trying to get that foot in the door. We know what we're doing, we're working well and we've been told that we're doing it well. It's just having someone to put that faith in you to enable you as a first-generation young farmer to get into things.

"It's about getting our name out there and getting young farmers as a whole out there. We are the next generation that has to work through whatever's going to happen with Brexit, and the future is in us."

Mr Giles believes there is a gap in the market, with many farmers retiring without anyone to take on their farms, and he wants new people to be able to come into the industry.

He says: "They need to be able to build a future because the farming network is still needed. Anything that can help that benefits all of us."

How young farmers can find support nationwide

Staffordshire farmer Richard Bower is the former chairman of the NFU next generation policy forum, a group of members under 40 who want to be involved in political decision-making.

Mr Bower says there are lots of opportunities available for young farmers now, and he advises getting off farm regularly and engaging in as many events as possible to learn new skills, share ideas and collaborate.

He adds: "The National Federation of Young Farmers' Clubs has groups locally, in some areas there are events specifically to discuss what young people want from agricultural policy post Brexit, and some agricultural societies now have next generation groups, like in my area.

"The way we farm now is different to the past and how we farm in the future will be different, so the more ideas you have in the future, the better."

Mr Bower has identified other ways for young farmers to find support in agriculture:

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Fresh Start land matching service The Land Partnerships Service matches young farmers with landowners/farmers who do not have a next generation to take over their farms.

Under 40s Fruit Growers A forward-thinking group who go on international study tours.

The Farmers Club Under 30s A fantastic group who have guest speakers at the Farmers Club in London and run farm walks nationally in the spring and autumn.

The Henry Plumb Foundation Provides funding and a mentor for young farmers who have a project idea.

A Focus on Nature (AFON) A group of young farmers/stakeholders who discuss the environment.

Tesco Future Farmer Foundation Supports new entrants and young farmers to launch their farming careers.

Co-op's Farming Pioneers A scheme offering business skills and a support network to farmers aged 18-34.

Muller's Next Generation programme Designed to develop and enhance young farmers' skill sets.

National Sheep Association's Next Generation Encouraging and supporting the sheep farmers and service providers of the future.

NFYFC has its own Agricultural and Rural Issues (AGRI) steering group for members, which is one of five steering groups that feed in ideas to the national council.

Chairman James Hutchinson believes that to succeed in farming young people need determination, an open mind, a good work ethic, common sense and a passion for the industry.

"While we know financial support can be difficult for people who are interested in farming, there are opportunities out there and we recommend exploring all of what's on offer," he says.

"Agriculture is a massive sector and needs people with technology and research skills as we work increasingly with digital machinery and new technology."

Getting into micro-farming

The Exmoor Hill Farming Network also has a peer support and discussion group aimed specifically at micro-farming members.

Typically, these members have moved into the area and bought smallholdings, but do not necessarily want to be identified as smallholders. Their farms may not be their main source of income, but they are running them with the aim of making a profit.

Network chairman Dave Knight explains: "That group has been a success and we've managed to engage with people who I don't think we otherwise would have, because they probably feel a little bit set aside from the main farming community."

The peer support groups are designed to target the particular needs and interests of their members, with activities and events planned accordingly.

When asked what event would really benefit them, the micro-farming members suggested a rundown on how to use the local market – perhaps an obvious task for those who have used them day in, day out for years, but a daunting prospect for others.

The group were shown round the local, farmer-owned Cutcombe Market by an auctioneer who explained how everything worked, from driving in to unloading stock, booking in and the auction process.

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Mr Knight says: "Suddenly it's not this big frightening prospect of driving into market with your stock with all the other local farmers. That's a brilliant example of something we can do."

JOURNAL : Farmers Weekly

Brothers Peter and Philip Le Maistre are sixth-generation Jersey farmers and for them this potato season has been the worst since covering spuds with plastic started to be used on the island in the late 1970s.

As frosts were forecast at the end of February, they put insulating fleece on top of protective plastic, but even on favoured southern slopes temperatures dived and crops were hit by frost and then heavy snow.

Peter said it was the most challenging year he has witnessed, with harvesting on his first flat fields only starting in early May, when it would usually commence in mid-April.

"It's the worst season we have known in terms of frost and wet soils since we started using plastic in 1979," he told Farmers Weekly.

See also: Spud Watch: Good conditions for seed planting

Yield from their early steep cotils fields were disappointing, with yields down to 0.4t/ha against an expected 1.6t/ha.

Watch the video report below.

Hit by frost

Their first level fields were hit by frost when the spud shoots were about 100-125mm high. It wiped them out, so it took time for other shoots to emerge, which is why the start to harvest is so late.

Full mechanical lifting started on 2 May this season, with yields down at 1.6t/ha, when 2.4t/ha was expected. Because of a lot of small potato tubers, two extra pickers were also needed to follow the potato harvester.

Ironically, although the frost hit yields, the potato samples are good, with not too many large tubers. They are likely to meet a good market as warmer weather in the critical UK mainland market boosts demand, said Philip.

The Le Maistre family grow 120ha of Jersey Royals on the 280ha mixed Master Farm, in the east of the island, along with a 200-strong Jersey herd and an area of organic vegetables such as courgettes and cauliflowers.

They are the last of the individual island growers who supply their early crop to the Jersey Potato Company.

Second crops

On their flatter land they look to follow the early spuds with three second crops of spring barley, maize for silage and temporary grass for feeding dairy youngstock.

The spring barley crop gives a relatively low yield of 5t/ha, but the only input the crop receives is a herbicide, while the straw and grain is very valuable as it means they don't have to be imported from mainland UK.

"The straw is very valuable as the freight costs from the UK costs more than the straw itself," added Philip.

JOURNAL : Farmers Weekly

Jersey's early potato harvest is almost a month late this spring, with yields expected to be down one-fifth after the Beast from the East frosted off young plants barely out of the ground.

Liftings of the earliest crops grown on the steep slopes tumbling down towards the sea are showing low tuber numbers as the Channel Island struggles to meet supermarket demands from the UK mainland.

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The searing cold in late February frosted off early growth, forcing the potato industry, which is Jersey's biggest exporter, to scramble and reschedule deliveries stretching all the way into July.

William Church of the Jersey Royal Company said after a desperately poor start to the season, harvesting is now starting to pick up, while other early spud areas such as Cornwall, Pembrokeshire and Suffolk have all been hit badly by poor weather.

"It's been a really challenging start to the season, but now going into May we have some excellent-looking crops," he told Farmers Weekly.

See also: Video: Spud planting races to catch up after late start to season

Worst season for 40 years

Jersey Royal growers say the season is the worst they have known for at least 40 years – since the practice of covering early potatoes with plastic was first introduced to the island in the 1970s.

Sub-zero temperatures blown in from Siberia made for a testing time, as even double-covered crops with plastic and also fleece suffered as temperatures dipped to -6C.

Watch the video report below.

Hand-lifting on the vertiginous coastal slopes, know as cotils, is now finished, as picking teams move on to more level ground and yields of Jersey Royal new potatoes start to pick up.

These early crops can be grown in 10-12 weeks on Jersey's light and well-drained soils, and are harvested using a tractor-mounted winch-operated lifter that exposes the tubers for an army of pickers to gather.

The main outdoor spud crop is planted from January through to April, with harvest in a normal season from the end of March through to July, and at peak time the island can export 600-700t/day to the UK mainland.

Down by one-fifth

Mr Church, the group's director of sales and marketing, believes island production will be down one-fifth to about 24,000t this season compared with as much as 28,000-30,000t in a more normal year.

He is busy rescheduling supermarket deliveries to customers such as Tesco and pushing through big UK retail promotions in June and well into July.

"The supermarkets are being really understanding as we are looking to extend our agreements into July, whereas they usually tail off towards the end of June," he said.

Normally, Jersey Royal's big month is May, quickly followed by Cornish earlies hitting the market in June and the Suffolk crop being lifted in July, but this season all those timings look like being a month later.

Mr Church's group have a sister company in Cornwall and down in the far south-west of England, many crops have also been hit by frost and will be late maturing.

Bright spot

The one bright spot is that prices have held up due to lack of supply from Jersey and the other early areas. Wholesale prices on Jersey Royals were holding at £1.50/lb or £3,300/t in early May amid hopes that prices may not fall too low in the extended season.

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Mr Church's company accounts for about 70% of the island's 2,500ha of potatoes, growing, **harvesting**, packing and distributing the crop. Each year it rents land from about 120 landlords. The rest of market is covered by a handful of growers supplying rival potato group Albert Bartlett.

The Jersey Royal Company, which was bought in 2014 by Produce Investments, the owner of fellow potato company Greenvale, usually starts planting spuds in 10ha of glasshouses just before Christmas and this crop starts being lifted at the **end** of February.

The supply of these indoor crops, priced as high at £5,000/t, was stretched out until the delayed outdoor crops became available in April after being hit by the heavy frost, almost unknown in the mild maritime climate of Jersey.

Mr Church explains that the frosts were well forecast and the group added fleece on top of plastic to protect the delicate young plants, but the double-covering simply was not good enough.

Severe frosts

Young green shoots were severely frosted and killed off, and crops took time to compensate and throw up a new set of potato shoots.

"The very first outdoor crops showed yields of only 10% of what was expected and we were digging yields of less than 1t/acre rather than a more normal 6t/acre on the early slopes," he said.

Harvesting has now moved to flatter fields in May, but **hand** lifting is still used as these are often small fields where great chunks of granite can cause damage to heavy machinery.

Intensive mono-culture where potatoes are grown every season on the same land requires special measures to keep potato growers' two biggest headaches - nematodes and blight - at bay.

Some growers say early spuds are often lifted before potato cyst nematodes become a real problem, but others are keen to keep the ground as clean as possible of these destructive pests.

Mustard mixes

As soon as spuds are lifted on the early slopes, mustard seed mixes are sown, which later in the year can be mown and worked into the soils to act as a biofumigant to give some control against these pernicious pests.

On the steep cotils, mustard mixes are not often used, but rather a standard mix including barley, vetch and legumes is grown to help fix nitrogen and act as a green manure to feed next year's potato crop.

In addition, *Solanum sisymbriifolium* or "prickly potato" can be planted, which acts as a trap crop as the stem and leaves contain solasodine, which makes the plant very resistant to many pests, including nematodes.

Blight disease can be a problem in the warm, humid weather of the island, with potato fields never very far from the sea. Therefore preventative fungicides are used, while bad blight patches are sprayed off with herbicides.

Another pressing problem is labour, with Mr Church's group relying on about 420 seasonal workers, largely from Poland, with others from Romania and Portugal also arriving to help lift the spuds and operate the grading and packing lines.

But the fall in the pound after the 2016 Brexit vote, combined with an upturn in the Polish economy, is causing fears about providing future labour needs.

JOURNAL : Farmers Weekly

Cereal goers were treated to a drill-off at this year's event, giving them chance to see how five different low soil-disturbance systems deal with the challenge of a cover crop.

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Prospective converts to min-till or no-till systems were able to get in the field with a variety of machines to see how cover crop cutting discs stack up against front mounted vegetation rollers.

With the promise of lower drilling costs, reduced nutrient loss from bare soils and improved soil health and structure, growers were keen to make the most of the opportunity to help them invest in the right kit.

See also: Cover crops can cover your costs and give benefits

The machines on show included Ryetech's Ma/Ag SSP low disturbance disc drill with independent floating coulters, and Simtech Aitchison's T-Sem 300A, which includes front trash cutting discs, inverted T-slot coulters, a rear springflex roller and following chain harrow.

Claydon Drills, Cousins of Emneth and Dale Drills also flexed their min-tilled muscles across the 8ha demonstration.

Four different seed mixes stood in the way of a perfect low-disturbance establishment, including Siletta Nova radish; Kings' Vitality mix of radish, cereal, vetch and clover; Kings' Power mix comprising 40% radish and 60% oats; and Kings' Super 10 mixture of 10 different species.

Watch our video report for the showcase highlights.

JOURNAL : Farmers Weekly

Thousands of Young Farmers have landed in Blackpool for this year's National Federation of Young Farmers' Clubs' (NFYFC) Annual Convention, raising more than £900 for charity as they arrived.

The club members showed their amazing generosity by donating hundreds of pounds for The Farming Community Network (FCN), as the 2018 extravaganza got under way.

NFYFC members dug deep to raise a grand total of £918.28 in just under an hour, as young farmers arrived in their droves at the Las Vegas of the North West for a well-deserved blowout.

See also: More coverage of the NFYFC Annual Convention

Convention-goers were asked to make a donation to FCN in exchange for one of 1,000 T-shirts on offer at the Farmers Weekly stand during registration on Friday afternoon (4 May).

All of the cash raised will go to the charity, which helps more than 6,000 farmers a year with its 24-hour hotline, providing assistance with farming, business, personal and mental health issues.

To contact FCN, call 03000 111 999 or email chris@fcn.org.uk

JOURNAL : Farmers Weekly

A key vote by European farm leaders will decide whether the NFU remains a member of the influential Copa-Cogeca umbrella organisation after the UK leaves the EU.

The powerful lobby group represents farm unions and co-operatives from across Europe – fighting the corner on behalf of growers and livestock producers at the heart of Brussels.

See also: Frictionless trade 'vital' for farmers post-Brexit

Copa-Cogeca's rules require its member organisations to be from EU member states.

But that will no longer be the case for the NFU once the UK formally ceases to be a member of the EU on 29 March 2019.

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The NFU says it hopes to remain a Copa-Cogeca member – at least during the Brexit transition period which is due to last from 29 March 2019 to 31 December 2020.

'Foreseeable future'

The Copa-Cogeca praesidium – which comprises representatives from its member organisations – is due to vote on the issue of continued NFU membership on 14 June.

NFU director of policy Andrew Clark told Farmers Weekly it made sense for the union to remain a Copa-Cogeca member “for the foreseeable future”.

He said: “The NFU believes that working closely with our European colleagues on EU farm policy – and our shared farming future – is incredibly valuable.”

The NFU's membership of Copa-Cogeca played a vital part in that work, added Mr Clark.

“For the foreseeable future, British farming will continue to follow the rules laid out by the CAP, alongside the thousands of other EU regulations and decisions that affect members on a daily basis.

European allies

“The NFU will continue to fully represent the voice of British farming during this uncertain time, working with European allies to strengthen our messages and ensure members get the best possible outcomes.”

The Brussels-based Agra Facts news service says “there are no provisions in Copa or Cogeca statutes for this kind of situation”.

But it adds several Copa-Cogeca members “have underlined the importance of closest possible collaboration to minimise any disruption in our economic and political relations to the UK”.

JOURNAL : Farmers Weekly

Farmers have been warned to be aware of the complexities surrounding the use of sideways loss relief to minimise income tax bills.

Accountant Saffery Champness said it was offering “a word of caution” about the relief for losses arising from farming after a number of tax tribunals involving farmers which have ruled in favour of HMRC.

In principle, sideways loss relief can be used where losses, arising from a trade undertaken on a commercial basis and with a view to making a profit, can be offset against any other income arising in the same or previous tax year, thereby reducing an individual's liability to income tax.

See also: Farmers to face new digital tax regime

Losses can also be carried forward and automatically offset against the first profits arising from the same trade, in the absence of any other claims, but not against future other income.

There is, however, a restriction on the amount of losses that can be offset against other income in a given tax year, the limit being the greater of £50,000 or 25% of an individual's adjusted net income.

Hobby farming rules

The hobby farming rules also introduce further restrictions on the use of losses arising from farming.

These rules mean after five successive years, sideways loss relief will usually be denied for any losses made in year six, and these can then only be carried forward for use against future farming profits.

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The rules were introduced in the 1960s to stop people claiming they were farming and then claiming their losses against other non-farming income.

Reasonable expectation

An exemption is available from the five-year restriction where farming activities meet the reasonable expectation of profit test, and where a “competent farmer” carrying on farming activities in the current year would reasonably expect future profits, but could not over the previous five years have expected their activities to become profitable until after the end of the current tax year.

Martyn Dobinson, director at Saffery Champness, and a member of the firm’s landed estates and rural business group, said: “This is a very complex area which has been tested a number of times at the tax tribunal, with victories for the taxpayer [ie the farmer] being few and far between.

“The ‘hobby farming’ rules still apply in the case of unforeseen and one-off events, such as poor weather and disease, and market factors are not an acceptable argument for longer-term losses being made.” Mr Dobinson added the losses clock would be reset by a year of profit.

“However, transferring the business between spouses, or to or from limited companies, cannot, due to anti-avoidance rules, restart the clock.”

Accounting year

Complications also arise where the farm’s accounting year and the tax year do not match.

In such instances, it can mean the restriction regarding the number of years can also kick in a year earlier than anticipated.

JOURNAL : Farmers Weekly

Vandals are causing huge losses on livestock farms and jeopardising precious forage supplies in a new wave of rural crime sweeping the countryside – the destruction of silage and hay bales.

The damage has been widespread, affecting farms in Cheshire, Lincolnshire and Somerset, as well as in Ireland. Typically, bales have been slashed open, but some have been set alight while still in the field.

The risks associated with arson are particularly high given the prolonged spell of hot, dry weather.

See also: 7 tips to foil farm arsonists

On top of this, low grass growth has left some farmers concerned about forage availability. Having bales vandalised and destroyed is adding further pressure to livestock farmers already facing shortages.

On Monday (25 June), Matthew Senior, an organic dairy farmer in Crewkerne, Somerset, discovered his bales set alight at milking time. He is now unlikely to have enough forage to last through the winter.

“We had 80 bales waiting to be stacked. All were slashed open and those on the front of the stack had been set alight,” he said. “It will add another £300 to the cost of the bales, because they’ll have to be rewrapped and six are completely unusable. My heart just sank – why have they done that?”

Further north, Jeanette McGuinness had 26 bales slashed open at her livery yard near Manchester. “We have all the equipment to rewrap them, it’s just a waste of time and effort,” she said. “It was lucky it hadn’t rained.”

She will now have to sell the bales at a reduced price to livestock farms.

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A similar incident has been reported in Lincolnshire, where Nigel Wright had 16 bales slashed open. "We had to remove the net, roll them out and then rebale them - a waste of time and money," he said.

David George, regional communications adviser at NFU Mutual, said: "Unfortunately, farms are vulnerable to this sort of casual vandalism and it is clearly impractical to keep silage bales under lock and key 24 hours a day.

"Always report incidents of vandalism and criminal damage to the police, keep an eye out for any suspicious vehicles or people, and sign up to your local Farm Watch or Crime Watch scheme."

JOURNAL : Farmers Weekly

Welsh farmers could lose about 40% of their support funding unless the UK government ring-fences the money that is currently spent on Welsh agriculture, First Minister Carwyn Jones has warned.

The general budget that Wales receives from central government is calculated using the Barnett formula – a mechanism which distributes money to the four UK nations based on population.

See also: MPs blast Defra's 'vague' approach to Brexit

But Mr Jones told the Farmers' Union of Wales (FUW) annual general meeting in Aberystwyth this week that using the same formula to replace the funding Wales currently receives under the Common Agricultural Policy (CAP) would seriously disadvantage Welsh farmers.

"The last thing we want to see is agriculture funding become Barnett-ised," he told the meeting on Monday (June 18).

If this happened, it has been estimated that Wales would receive about 40% less for agriculture than it currently does from the CAP.

Mr Jones insisted that the funding that will replace Wales' share of the CAP budget – currently understood to be about £329 million – must be allocated as a separate payment.

"Funding for agriculture must not have to compete with health and education," he said.

Reassurances

FUW president Glyn Roberts said the union had received "acknowledgement" from Defra secretary Michael Gove that rural funding through the Barnett formula would not be appropriate for Wales and the other devolved nations.

Welsh agriculture will remain a devolved issue after Brexit, and the first minister said this offered Wales a "once-in-a-generation" chance to redesign policies.

Mr Jones said the Basic Payment Scheme was not the best tool for supporting food production.

"We need to change the way we support farmers," he said, promising a "radical approach" to agriculture policies. "Some change might be considerable, but we can't stand still."

On trade, he described the prospect of leaving the single European market as "insanity" and said the Welsh government would not tolerate that outcome.

He singled out lamb production as the sector most likely to be threatened by that.

A new Welsh government consultation on future farm support is expected in July.

Procurement

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

One farmer in the audience suggested that breaking away from EU state aid rules after Brexit could pave the way to public procurement contracts for lamb and other farmed produce that would benefit Welsh farmers.

But Mr Jones believed such a protectionist approach would have negative repercussions for the industry, because other countries would react with similar policies and close the door to Welsh produce.

“Be careful what you wish for,” he warned.

Cash available to help farmers prepare for Brexit

Two thousand Welsh beef and sheep farmers are to be financially supported to benchmark their technical performance in a new £2.1 million initiative announced by the Welsh government.

First Minister Carwyn Jones told the FUW AGM that the benchmarking initiative – a first for the red meat sector – was intended to help Welsh livestock farmers prepare for Brexit.

The funding is coming from the Welsh government's EU transition fund.

FUW president Glyn Roberts said the investment would allow farmers to assess the financial status of their businesses to help them prepare for Brexit.

JOURNAL : Farmers Weekly

Farm operations manager Sam Glover (21) chats to us about his growing machinery fleet, why he has chosen a brace of Agrifac Condor sprayers to cover the vast acreage and the reason his tractor fleet is exclusively red.

He also reveals why he has switched from running two sugar beet harvesters in previous years, to just one for the coming campaign and why he still favours older Claas combines.

See also: See what's in other farmers' machinery sheds

How brand loyal are you?

As far as the combines go, Claas is the tried-and-tested brand. My dad, Tim, had a Claas Dominator 86 on the family farm, so it's stemmed for there.

Although we have tried other brands, the backup and parts availability from Claas dealer Manns is second to none in our area.

For the past five years we have run a fleet of Case tractors and really like the CVX transmission and comfortable cabs, but when we first got going, we were solely McCormick.

The sprayers are Agrifac and as with all our kit, it boils down to reliability and helping the business develop.

Favourite dealer?

We get on well with Ernest Doe Power based at Fakenham, which is about 30 minutes from us and where most of our kit comes from.

David Gricks is the branch manager and has looked after us well over the past five years, and there's an engineer out the same day if we have an issue.

Favourite bit of kit?

The Agrifac Condor is my favourite piece of kit, mainly because I drive it all spring, so I pretty much live in it.

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I like the boom stability and cab suspension, and the newest machine has Trimble RTK satellite, which means it is fairly relaxed when you get in big fields.

In spring 2017, our days started at 2:30am and finished at about 9pm. We covered about 200ha as the weather limited decent spray days, although there is only a certain amount of time you can do these hours for.

Our newest 2016 model already has 3,800 hours on the clock and has covered more than 22,000ha.

Least favourite?

The He-Va subsoiler – not because it does a bad job, but when there is a sign of weeds or some long stubble, you spend most of the time unplugging the legs.

Contracting facts

Business Glover Agricultural Services, West Dereham, Norfolk

Staff Sam Glover, plus 10 full-time and two self-employed staff

Workload

Spraying – 20,000ha

Baling and chasing – 25,000 bales

Combining – 1,300ha

Sugar beet harvesting – 1,800 ha

Cereal drilling – 600ha

Sugar beet drilling – 250ha

Muck- and Limex spreading, plus sub-contracting for large vegetable growers

Latest purchase?

We have just purchased a new Ropa Tiger 6 sugar beet harvester, which has a 40kph gearbox that will speed up journeys around the county and allow us to spend more time in the field.

The RR lifter is a huge leap forward from our last model and the single-row adjustment will help reduce the amount of wearing parts that need replacing.

We used to run two Vervaet harvesters and this latest Ropa Tiger will see us drop down to one, so it may be a testing season, although we plan to double-shift it and run 24 hours a day.

Oldest machine in the fleet?

Our oldest machine still in full-time service is our baby Claas Lexion 460 combine, which is an R-registered model.

Despite being the oldest, it is our most reliable combine, as it has minimal electronics and only had a couple of hydraulic hoses go last year.

We find it better to run two smaller and one large combine, rather than two monster machines. Some of the field sizes around here are as small as 3ha, so having a nimble machine more than pays for itself in these areas.

How long do you keep machines for?

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All our Case tractors are on extended 5,000- or 6,000-hour warranties and due to our workload, most will easily hit this figure within three years, so will be changed before the warranty expires.

Our latest Pumas were delivered last August and one is already on 1,800 hours. We have on average three new tractors a year.

What's next of your wish list?

We had a Case Optum 300 on demo last harvest to provide more firepower on the cultivation work.

We liked the AFS 700 screen and the cab is more comfortable than our Puma tractors. I'd like to think we will have one here for this autumn.

Most expensive repair bill?

One of our early Case Puma 165s was under a year old on 1,200 hours when it gave us a hefty repair bill after it developed a problem with its rear brakes.

We sent it to the dealer to be repaired, but the warranty didn't cover it, so we had to fit the £6,000 bill.

We thought it was sorted, but later that year the same issue reoccurred on the same tractor and once again, the bill was picked up by us.

What couldn't you live without in the workshop?

We don't do a lot of inventing and most machines have their own service packages, but all our combines are older models and are serviced by my uncle, who has his own engineering business on site and is a bit of a Claas specialist.

Do you buy second-hand?

Not really. Due to the hours we put on machines, warranties are valuable, so we tend to buy most things new to avoid nasty surprises.

Favourite job?

Spraying. Possibly due to the sprayers we run, but I love being up early and getting lots of land covered in a day.

Least favourite?

Paperwork.

What's your everyday transport?

A 2015 Isuzu D-Max, which we bought new and has the excellent 2.5-litre, twin-turbo engine. It's done about 48,000 miles so far, but some days it sits in the yard as I'm glued to the sprayer seat.

What's in the shed?

Harvesters 2007 Claas Lexion 600, 30ft header; 2006 Claas Lexion 570, 25ft header; 1997 Claas Lexion 460, 25ft header; 2017 Ropa Tiger 6 beet harvester

Sprayers 2012 Agrifac Condor self-propelled sprayer, 36m; 2016 Agrifac Condor self-propelled sprayer, 36m, full RTK

Tractors 2015-2017, 11 x Case Puma tractors, 160 – 240hp

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Straw kit 2 x New Holland BB9090t square balers; 1 x New Holland 4x3 baler; 1 x Heath Superchaser extra

Cultivation and drilling Lemken 7-furrow plough; Lemken Solitair 8 combination drill 4m; Horsch pronto drill 4m; Vicon Unicorn 12-row beet drill

Best tractor you've owned?

We don't strictly own it yet, but the Case Optum we had on demo last year that pulled our Lemken plough about 2.5kph quicker than our Puma 240, and made us think we need the extra power on some of the heavier land we farm.

Worst tractor?

When we started the contracting business, we ran McCormick machines, as they offered a cheap form of power to get us established, but one 215hp machine caused us all sorts of issues, with the electric joystick and hydraulic system being the main culprits.

It prompted us to switch our shade of red. That said, we liked the smaller McCormick machines.

Biggest machinery bargain?

We bought a new 6m weed wiper, used it for six years and sold it as part of a trade-in for more than the original purchase price. I wish it was like that with tractors – we'd change them every year.

JOURNAL : Farmers Weekly

Next year's sugar beet crop will be at greater risk from virus yellows, due to the loss of seed treatment control measures.

This follows confirmation that the sale and supply of three neonicotinoid seed treatment active ingredients will cease by mid-September, with the use of seed treated with the three actives ending on 19 December.

See also: How to manage disease in sugar beet crops

For sugar beet growers, this means that current choices thiamethoxam and clothianidin can no longer be used in seed treatments for the 2019 crop, after the EU extended the ban from using them on flowering crops to include all outdoor crops.

Imidacloprid, another neonicotinoid active ingredient that had previously been used in sugar beet, is also affected by the decision.

Peach potato aphid

In their absence, beet growers are left without any control measures for the most important vector of virus yellows, the peach potato aphid (*Myzus persicae*), which has developed resistance to several important insecticide groups, including pyrethroids.

Before the ban extension was announced, the British Beet Research Organisation (BBRO) was already working on alternative strategies for controlling virus-transmitting aphids, as well as other pests controlled by the widely used seed treatments – with that work now taking on greater urgency.

"The UK sugar beet sector was severely challenged in 1987 by rhizomania," says Dr Mark Stevens, head of science at BBRO.

"At the time, there was plenty of doom and gloom, with some predicting the demise of the crop. That didn't happen.

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“Now we are facing another challenge and we are up for it – there are potential solutions out there and we need to get them fast-tracked.”

The neonicotinoid seed treatments have been an effective one-stop shop, he acknowledges. “Up until now, growers have been able to control 15 pests with their use and they’ve all got used to that convenience. No wonder 97% of the UK crop was treated.”

For some pests, their loss won’t be a problem, as there are actives such as tefluthrin which can still be used in seed treatments, he stresses.

“That’s the case with soil pests, such as millipedes, symphylids and springtails. Tefluthrin, which is found in Force, will give good control.”

Leaf miner

Another pest, leaf miner, is less of a problem due to its sporadic nature, although it does seem to be on the increase, Dr Stevens warns.

“Having said that, 2017 wasn’t a bad year for it, so there was no need for an emergency authorisation for a foliar application of thiacloprid.”

Without foliar thiacloprid, control options for the pest are limited once the neonicotinoid seed treatments have worn off.

“Hallmark can be used but it relies primarily on contact action, so once the larvae have penetrated the leaf, it is difficult to control them. It is a pyrethroid, so it’s not great for beneficials.”

Virus yellows

Virus yellows is the biggest challenge and will require the use of integrated approaches, especially as tolerant varieties are not likely to be available for at least another five years, Dr Stevens says.

“The good news is that there is plenty of plant breeding work being done on developing tolerance, so we are hopeful that resistant varieties will be introduced in due course.”

However, there’s no single major source of resistance, so that work involves identifying lots of minor genes for the three different viruses, he explains.

“It’s complex, which is why these varieties will take a few years to produce. In the meantime, we will have to monitor crops closely and improve surveillance.”

New technology will help with this, he believes, as will greater attention to farm hygiene.

Teppeki clearance

Other insecticides are also of interest, with Dr Stevens highlighting the aphicide known as Tepeki (flonicamid), which is already approved for use in potatoes and cereals.

“It’s a foliar spray and, if it is cleared for use in sugar beet, we will only be allowed to make one application. So timing will be very important,” he says.

“It can give useful activity. A label extension to include sugar beet would be helpful.”

Manufacturer Belchim confirms that it expects Tepeki’s approval for use in sugar beet imminently, with delays looking unlikely.

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What is virus yellows?

Virus yellows is caused by a complex of viral agents, including beet mild yellowing virus, beet yellows virus and beet chlorosis virus.

Between 1980 and 1995, losses to virus yellows were estimated at £5.5m a year when older (pre-neonicotinoid) treatments were applied, rising to more than £10m in the absence of control measures.

Unchecked, yield losses from virus yellows are estimated to be in the region of 20-25%, with the UK's maritime climate proving to be ideal for the aphids, which transmit the virus by feeding on the plants. Losses are greatest in years when aphids colonise beet plants early in the spring and multiply rapidly.

Until now, widespread use of neonicotinoid seed treatments has provided excellent control of aphids during the early stages of crop growth, protecting the crop against virus yellows and its associated yield loss.

In 2017, BBRO aphid monitoring saw the first peach potato aphids being caught in May, while the first virus yellows infected plants were found at its demonstration site at Rougham, Suffolk on 16 June.

JOURNAL : Farmers Weekly

Brothers Rich and Chris Norman will make history this summer by being the first autumn block grazed herd to host the Gold Cup Open Day on Thursday 14 June.

During the day, the winners of the coveted trophy will reveal the secrets behind their success through a series of talks from some of the people who inspired the achievements that saw them winning the 2017 Gold Cup.

Throughout the day, attendees will get an insight into the running of the 580-head cross-bred herd and its other enterprises, including the 200,000 broiler unit and anaerobic digester, where managers will be on-**hand** to answer questions.

See also: Cross-bred dairy herd wins Gold Cup

Programme of speakers

Future market predictions, presented by dairy market analyst Chris Walkland

Succession planning and the role of governance, presented by Tony Evans of the Andersons Centre

Factors driving business and team performance and success, presented by LIC and Real Success

The benefits of linking your farm to the environment, presented by the Wye and Usk Foundation

Rich Norman said he hopes they are able to demonstrate how success is possible for all herd types and he hopes the day will attract visitors from far and wide, from the whole range of dairy systems.

He added: "We are thrilled to be in this position and look forward to sharing some of our practices with visitors through specialist speakers who are integral to our business and its success.

"Above all, we hope we are able to provide some key take-home points that people can apply to their own businesses. Equally, we look forward to learning some new ideas ourselves."

Entry is free, but pre-registration is essential and can be done online on the RABDF website. If you have any queries, please call the office on 02476 639 317.

JOURNAL : Farmers Weekly

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

When Richard Spencer sold 4.4ha of farmland for residential development, it was an opportunity to relocate the farmyard and build new housing for his beef herd.

Mr Spencer, who farms with his father, John, needed a shed to hold 80 suckler cows and followers on a greenfield site at Mansell Farm, Newbold-on-Stour.

See also: What's In Your Livestock Shed: £5k sheep shed transformation

He opted to have two mono-pitch steel portal frame buildings facing each other.

At £87,695 for the sheds, and another £38,053 for the fittings and labour, it was a substantial investment.

But it means cattle are easy to manage in their new environment and there have been no cases of pneumonia since the cattle occupied the buildings.

Farm facts

Suckler herd of Shorthorns with some Shorthorn cross Belgian Blues and South Devons

Herd number reduced from 80 to 70 this spring due to TB

Herd split, with 40 calving in spring and 30 in the autumn

Cattle sold to Woodheads to supply Morrisons

How did you set about choosing the design?

We wanted a simple design, something that was suitable for a one-man system. It needed to have good ventilation and to hold up to 200 cattle of different age groups.

We chose two identical single-span sheds and constructed these opposite each other so in fact it looks like one shed with a 2.4m gap between the overhangs.

The environment is very airy and the layout lends itself well to handling different groups.

What are the shed's dimensions?

Each half is 36m long and 12m wide, with a ridge height of 6.36m and 3.65m to the eaves. The central passageway is 7.3m wide.

At capacity, we can house 180-200 cattle, including calves and followers.

What is the building made of?

The frame is galvanised steel and the roof is fibre cement sheeting with clear plastic corrugated skylights.

The walls are a combination of Yorkshire boarding and concrete panelling. The bedded areas have compacted stone floors.

How is the shed laid out?

Each side has six bays and the straw-bedded areas can be shut off from the feed passageway, which means we can hold the cattle in those pens when we scrape.

How much did the whole thing cost?

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

The shed itself was £87,695 excluding VAT. The internal fittings such as gates and other metal work cost £15,840 and we paid £22,213 to have those fitted.

As it was a greenfield site we needed to get three-phase electricity from a point 200m away, so that cost us another £28,000.

The planning fee was £5,390. We created a track from the farmhouse down to the shed using our own limestone and that worked out at about £25,000.

We had an existing steel portal frame building at the old farmyard and spent another £18,690 relocating that.

Who was your supplier?

The shed was supplied by SA Mogg at Astwood Bank, Redditch, and constructed by Dudfield Farm Buildings at Stow-on-the-Wold.

The gating and barriers were from IAE, but supplied by Stow Ag. It took two months to complete. This has been our second winter using it.

Has it been a good investment?

It seems a lot of money for an 80-cow suckler herd, but we had the funds from the housing development and we wanted to continue with the beef enterprise.

If we hadn't had the income from the development, we would not have been able to do it.

Dad does the mucking out. It takes him an hour a day to scrape and to run a straw chopper down each side.

It had been taking two men three hours to bed and feed 80 sucklers because the old housing set-up was a rabbit warren of buildings. We are now using about 750kg of straw a day.

The herd is mostly housed from September and out again by the end of March, but we have had to delay turnout this spring because it has been so wet and grass growth has been slow.

We muck out the bedding every six to eight weeks. The shed is laid out in a way that we can shut the cattle into the concrete passage while we do this.

How has it improved cattle health?

In our old buildings pneumonia and scours had been a big problem, but I'm happy to say we haven't had a case for two winters.

We vaccinate for pneumonia. The cows get a rotavirus corona jab too and they pass that benefit on to their calves.

What is your favourite feature?

There are removable metal bars in the barriers of one of the pens which acts as a creep feeding passageway for calves.

They stay with their mothers, but they can come and go from a separate pen to get extra feed.

When we don't have calves in that pen we use it to house our stock bulls.

What would you change?

The water troughs are positioned behind the feed barriers and we find that the cattle have a tendency to muck in them.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

I didn't want them on the back wall because I thought we would get more dirty bedding.

Also, if there had been a leak, the water would have soaked onto the bedding.

We have a temporary handling system, but ideally we would have a permanent area where we could isolate the cattle to PD and foot-trim them.

Have you made any changes since the shed was built?

We have fitted hardboard under the doors to stop badgers getting in. We had been TB-free for 10 years, but currently have a herd breakdown.

There are also bits that we need to finish. For instance, we created a manure store from some materials we had at the old site and will put a roof on that this year.

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JOURNAL : Farmers Weekly

Our latest What's in your Shed? heads to Cheshire to visit mixed farmer Graham Lowe.

The families' workload load includes a herd of beef cattle along with arable cropping and baling, as well as a farm shop and equine business.

We find out why he is so loyal to the New Holland brand and still runs a brace of older TM models on the frontline

How did you get started?

My dad moved here in 1958 when the farm was just 12ha.

He opened a simple farm shop a couple of years later and we have gradually built up the business from there.

Now we are farming a total of about 200ha, roughly half of which is rented, and we grow 40 types of vegetable to sell through the shop.

The shop itself was rebuilt and extended in 2015 and we are planning to add a café next.

See also: What's in Your Shed? visits an Irish grassland contractor

How brand loyal are you?

We have been very brand loyal over the years, as we have two superb local dealers that we like to work with. One is Malpas Tractors, which is why we have a fleet of New Hollands, and the other is John Bownes.

Most of my other machinery comes from him and I also have quite a few classics that he sourced for me.

Business facts: DJ Lowe and Partners, Shanty Farm, Byley, Cheshire

Farming: 200ha mixed farm

250 head of beef cattle

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

65ha of cereals including wheat, barley and oats

10ha potatoes

40 different types of vegetable sold through the farm shop

Contracting: Baling, wrapping, silage

Other: Farm shop and equine feed business

Staff: Graham, Tracy, Tom and Sam Lowe, plus two full-time in shop and six to 10 part-time staff

I have also had some classic Fords from John Tomkinson at Market Drayton, and Ellis Machinery at Gaydon, Warwickshire, is good to deal with – its machinery is always immaculate and the service is excellent.

Favourite piece of kit?

Our Kuhn Primor straw chopper. When we got it 11 years ago it massively reduced our straw use. We've only had to replace one set of blades in that time and it still looks as good as new.

Least favourite?

We had a Bomford Falcon Evo hedgecutter that we just couldn't get on with. It was a high-spec machine with variable forward reach, but we found it very hard to control and almost impossible to keep the top of the hedge flat. We replaced it with a simpler Kuhn Pro-longer that we've been really happy with.

In the shed

Tractors: New Holland T7.235, T7.200, T6.180x 2, TM155, TM140 and 8260, Ford 3910, 4610 and 3600, Valtra A73

Balers: New Holland Combi 125 round baler/wrapper, BB950 big square baler and BC5070 conventional baler, Kuhn Intellwrap bale wrapper, McHale mini bale wrapper

Grass kit: Kuhn front and rear mower, Krone six-rotor tedder, Kuhn twin-rotor rake

Cultivation kit: Kverneland EG85 five-furrow vari-width plough, Heva 3m Combilift, Amazone 3m power harrow, Standen 3m rotavator, Dalbo 6.3m Cambridge rolls

Drill: Kuhn Integra 3m combi drill

Trailers: Richard Western SF11 and SF12 silage trailers, Weeks 8t and 10t grain trailers, West 8t and 10t grain trailers, AW cattle trailer, 21ft Marshall bale trailer x 2, 25ft Predator bale trailer

Telehandler: JCB 526S

Veg kit: Grimme DL15 and row over potato harvesters, Standen bedformer and destoner, Reekie potato planter, assorted small-scale veg equipment

Other: Kuhn Primor straw chopper, Bunning Lowlander 90 muck spreader, JCB 3CX excavator

What's your latest purchase?

We have just taken delivery of an ex-demonstrator New Holland T6.180 that's on about 200 hours.

It's the newer shape machine and is so much more comfortable than the T6.175 we had before. We have only done a few hours in it, but so far it looks like a good purchase.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Best tractor you've had?

We used to have a K-reg Ford 7840 with retrofit turbo that was fantastic. We had it for 10 years and it easily coped with our Reco Mengele SH40 forager, which was fairly power hungry.

The tractor was supposedly running at 125hp, but we think it was putting out a fair bit more than that.

The only spare part it had other than oil and filters was the fan belt. It got traded in for a TM135 when it was on 7,840 hours, but I wish we had kept it, really.

Our current T7.235 Power Command comes a close second. It has more than enough power for what we need and it's very smooth.

Worst tractor you've had?

The worst was a New Holland T5 with a loader. The tractor itself wasn't too bad, but the mounting brackets for the loader were too far forward, meaning it was incredibly front heavy.

After 12 months we got fed up with how light it was at the rear end and moved it on. Shortly after that I think New Holland changed the brackets on them, so later or modified models might have been fine.

How long do you keep your machines?

We tend to keep our frontline tractors for three years and, because we only do about 500 hours a year, they're still under warranty when we come to sell them.

To make sure we get the best trade-in prices, we look after them as best we can and they get treated to a full valet every season. It only costs £35 a tractor and it gets them looking like new.

Our older New Holland tractors get the same treatment, but we have no plans to change these.

The rest of our kit is changed when it's worn out or we fancy a change. We are fastidious about looking after it all and everything gets stored under cover.

Biggest machinery bargain?

Our best buy has to be our New Holland 125 Combi baler. It was a demonstrator model that had done 700 bales and we were offered it for £20,000 less than the new price.

It's very easy to use and so much quicker than running a separate baler and wrapper. We also like the fact that it drops the wrapped bale on to a mat, reducing the chance of wrap getting punctured.

A lot of our haylage is sold to horse owners, so it's important we keep the quality high. For that reason we also put eight layers of wrap on each bale. Speed is pretty decent too, with it comfortably popping out 40 bales an hour.

Oldest machine still at work?

We are still using an old 1950s Robot potato planter that my dad bought. It's very simple with a land wheel and chain to turn the planting cups, but it does everything we need.

What's next on your wish list?

We're looking to get an 80x70 square baler. At the moment we're doing round, conventional square and 120x70s, but we think there is good demand for that interim size.

They are also good for the equine market as they're just about small enough to handle manually. All our current balers are New Hollands, and this one probably will be too.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Biggest machinery mistake?

I was cutting a neighbour's hedges, which I'd done for years, when I ran over the valve on a new underground gas tank they'd had installed.

It caused the tank to leak and the emergency services shut the road for 24 hours while it was sorted. My insurance company also had to provide a new tank.

Biggest repair bill?

We were landed with a £6,000 bill on our New Holland BB950 baler when one of the needles pushed something tough (we're not sure what) into the knotter and smashed it. Malpas Tractors did the repairs for us and thankfully our insurance covered the fee.

Best invention?

It's very simple, but we made an inter-row side-hoe weeder out of an old ridger. It works well, cost us nothing and was quick to put together.

What's your everyday transport?

I have one of the last twin-cab Land Rover Defender pickups. I used to buy them with discount vouchers from the NFU and change them every three years, but obviously that has had to stop now.

I sold the last one to the tuning house Kahn Design, which was planning to bling it up, and it only cost me £3,000 to change. This latest model is on 16,000 miles so far and I'll be hanging on to it.

Do you have any classics?

I have quite a few that I've picked up over the years, most of which are Fords and David Browns. A few of them still get used on our vegetable ground, but most are stored. They are all run up at least once a year though.

JOURNAL : Farmers Weekly

The level of interest in the UK's largest farms and estates is closely linked to their diversity and potential for buyers to add value.

Agents report bidders at the top of the market have become increasingly discerning and – despite not being awash with options – are willing to wait for the right opportunity.

A limited number of rollover buyers and expanding farmers are looking for large blocks to drive economies of scale within their enterprises.

See also: 7 of the biggest farms in the world

But cash from investors and institutions is being directed towards sales with non-agricultural income streams and long-term strategic development appeal.

Some significant farms have been launched across the UK during the past 12 months, with potential investors offered farms ranging from 1,200 to 3,200 acres.

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E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

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Guide prices topped £31.5m with the launch of the 2,177-acre Sutton Hall Estate, as reported in Farmers Weekly last month.

Good amount of interest

One-third of those advertised in the past year have completed, with negotiations continuing on the rest.

Carter Jonas completed the sale of the £13.5m Shackerstone Estate earlier this year, achieving the guide price.

Firm associate Ben Ainscough, who sold the 1,738-acre portfolio on behalf of the Crown Estate, said there was a good number of enquiries, but the estate's let farms didn't suit everyone.

"We had a number of people contact us after it went under offer to say they are interested in something similar should it become available," Mr Ainscough said.

"The AHAs in place had further successions to run, so perhaps if there was the prospect of getting those farms back in-hand to improve or develop then there would have been more bidders.

"Buyers are happy to spend the money on quality, but if there is strategic investment appeal then that heightens interest. Buyers are discerning and are holding off for the right thing."

What do buyers want?

Fisher German associate Richard Gadd said there is greater demand for large estates with diversified income streams because it softens the risk profile in comparison to a bare agricultural unit.

"We've seen examples of institutions re-evaluating their risk profiles and considering looking at other investments away from agriculture," he added.

Mr Gadd said a balanced estate of 1,000-1,500 acres of Grade 2 or Grade 3 arable land, with a modest house and an established non-agricultural income stream would be the perfect fit for today's market.

"The reason we don't have anything like this to offer is because if you own an estate like this, you wouldn't want to sell it," he said.

Cash is king

Savills director Charlie Paton said most interest in scale was coming from cash buyers from the UK.

"There are glimmers of overseas buyers, but the money is mainly UK based," he said.

"There are a few large estates on the market at the moment and the buyers are there providing it is priced sensibly and it's in the right location for them."

JOURNAL : Farmers Weekly

Most spring calving dairy farmers would grimace at the thought of buying a feeder wagon.

However, some spring systems are doing just that in an attempt to extend grazing rotations and support milk production.

A high stocking rate is another reason why some pasture-based herds are supplementing grass with total mixed ration (TMR), while others are favouring feeding TMR to balance the variability in the dry matter, protein and availability of grass.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

See also: Award-winning dairy farmer shares grassland management strategy

In County Cork, dairy farm Kevin O'Neill has invested 40,000 (£34,800) in a Keenan tub feeder wagon to allow him to feed TMR to extend the grazing window on his 32ha platform.

He milks 140 spring calving cows on a pasture-based system at Ahakeera, Dunmanway. Half the farm has free-draining red sandstone land, but the remainder is reclaimed marsh which can be difficult to graze.

"We can grow grass but we cannot get at all the paddocks," says Mr O'Neill.

When conditions are wet in the autumn and spring, the number of paddocks cows can graze is limited and that's where buffer feeding comes in.

Feeding

He aims to turn cows out to grass on 1 February and doesn't house them until 1 December or later if conditions are favourable.

<https://infogram.com/kevin-oneill-1h9j6q80jg3v6gz>

On the shoulders of the season, when grass growth is low, cows receive a ration of 30kg freshweight a head made up of grass silage, straw, soya bean, maize meal, barley and sugar beet.

This reduces to 8-10kg as grass growth increases and then once housed this mix is upped to 60kg a cow. Cows are buffer-fed in feed bunkers in the yard before the afternoon milking.

"We fetch them in 10 minutes early, it helps speed up the process of getting them in from the field but it can make them a bit lazy going into the parlour," says Mr O'Neill, who farms 81ha.

"We feed until the grass is plentiful, usually around mid-May, and introduce a buffer again at the end of September or beginning of October," he adds.

"As soon as I think grass is tapering off in September or October I start using buffer feeding but I don't want to open the pit silage so I use bales instead," he explains.

Cows receive 2-3kg of concentrates in the parlour in the autumn and 1kg in the spring.

Milk production benefits

The herd produces an average daily milk yield of 31 litres which earns Mr O'Neill 44 cents/litre (35p) from his milk buyer, Dairygold.

"Milk solids come at a price, I wouldn't use TMR if it wasn't returning a premium for me, although other spring calvers think I am an idiot for having a feeder wagon."

In a poor spring, buffer feeding has been very beneficial, he points out.

"During a cold spring like the one we have just had, those farmers might only have their cows at grass for three hours then they had to bring them back inside to feed.

"I know of grazing farmers who would have been feeding about 10kg of meal at that time whereas I only fed 7kg because the cows were getting a buffer feed."

His cows are larger than the more typical spring-calving animal – he milks pedigree Holstein Friesians, but these are moderate in stature and width.

Pre-mow grazing

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Farm facts

110 spring-calving cows and 30 autumn calvers

81ha owned

Milk protein 3.49% and butterfat 4.47%

12-unit herringbone parlour

60-70 bulling heifers with 120 calves reared annually

Only dairy semen/dairy stock bulls used for breeding replacements and to produce pedigree Ahakeera bulls

He has three-day paddocks, allocating grazing with an electric fence.

To maintain grass quality, he always mows pre-grazing.

"I never have to top a field, I get short, leafy grass, not long and stemmy.

"I don't get any waste; the fields are like a golf course when the cows have left them."

Mr O'Neill doesn't measure grass with a plate meter.

"I would rather be looking at it than looking for it. I mow grass every day so I know if the covers are getting too heavy and when they are I cut them for silage."

He applies 30-35kg/ha of nitrogen to paddocks after every grazing. "When the grass is growing I fertilise as heavily at the nitrate regulations allow and cut what I don't need for grazing for silage."

Mr O'Neill takes three cuts of silage – both clamp and big bales – with the first cut mostly in mid-May.

Fertility and health benefits

He believes buffer feeding underpins the health status of his herd.

"During this spring's calving we only had one case of retained cleansings and no displaced abomasums.

"In an extreme spring grazing situation, the cows go out to grass and they are empty, their stomachs will move.

"If I think my cows are loose I can add straw to the ration or a little bit of soya to help with digestion so that they are chewing their cud."

A balanced diet has also resulted in very few cases of lameness. "We never have to cull for lameness even though they have to walk up to a mile to and from the parlour," Mr O'Neill reports.

And he says fertility is good too – his submission rate in the first three weeks of breeding is 45%. "We have very few empty cows," he says.

He has a strict culling policy – removing between 10-15 animals from the herd every year, mostly due to poor udder structure and if they have experienced more than two cases of mastitis.

Mr O'Neill regards the wagon as a cost neutral investment. "Whatever it is costing me it is certainly returning."

JOURNAL : Farmers Weekly

Cover cropping has earned its place in the arable rotation at Freefolk Farms in Hampshire, with stubble turnips being used ahead of spring cropping, bringing many benefits on the thin chalk soils.

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Not only does the 50ha provide grazing for the farm's sheep enterprise and help to fatten lambs, growing stubble turnips also helps the farm to meet some of the obligations of its Higher Tier Countryside Stewardship scheme.

"We've grown them for years," points out Hugh Crosbie-Dawson, who manages the AHDB's Basingstoke Monitor Farm site.

"And there's always a notable difference with establishing the following spring barley crop where the sheep have been."

See also: Cover crops benefit Lincolnshire blackgrass battle

In the right conditions, grazing the turnips allows him to direct drill afterwards, saving time and reducing fuel use.

"If the sheep have grazed them, we can get the same spring barley establishment from drilling directly into the stubble as we can from using a cultivator," he says.

"This year, the direct operation was twice as quick and saved us around 50 litres/ha of diesel."

Different mixes

As part of the Monitor Farm programme, he agreed to try some different cover crop options last autumn, with six different mixes being selected and drilled in a field that had previously produced disappointing spring barley yields (see table).

Farm facts – Freefolk Farms

1,161ha

800ha arable – milling wheat, spring barley, winter oilseed rape and peas

250ha grassland

150 Holstein dairy cows

500 breeding ewes

Commercial lets, self-storage containers

Solar farm

"Soil analysis hadn't given us any clues to the yield issue, so we were interested to see if different cover crops could help with soil structure and nutrient recycling on these thin, chalk soils, and whether that would result in a yield lift," he explains.

Drilling took place on 26 August 2017 with the farm's Horsch Sprinter drill, and all of the mixes were rolled afterwards, with 30kg/ha of nitrogen being applied to each 0.5ha strip.

"They established well," he recalls. "They were all grazed off with the sheep over the winter and we drilled the following crop of Propino spring barley in the first week of April."

Some of the spring barley land was cultivated before drilling, with the remainder being direct drilled. "It was very wet, so my **hand** was forced. The headlands had to be re-drilled two weeks later, as they didn't establish well."

That spring barley crop is now being closely monitored so that it can be compared with the rest of the field, which didn't have the preceding cover crop mixes.

Nutrient benefit?

E FARNBOROUGH: VietJet signs for another 100 Max jets; VietJet Air has signed a memorandum of understanding that covers 100 more Boeing 737 Max jets, after ord....

Of particular interest is whether there is a nutrient benefit in the following crop, or if the effects are longer term, and if greater diversity in the mixes adds some resilience and helps to suppress weeds.

"We have been pulling some of the stubble turnips up to help with blackgrass control, so these mixes might have a role with that."

The eventual outcome and findings will be shared at his future Monitor Farm meetings, which start again in October 2018.

However, the later-than-normal drilling date means that fertiliser use has already been reduced by 15%, with the barley receiving 120kg/ha of nitrogen rather than its usual 150kg/ha.

It has also had a cheaper herbicide programme, with Foxtrot (fenoxapro) being applied for wild oat control rather than Axial (pinoxaden) plus adjuvant Adigor, while the cost of the T2 fungicide spray has been halved.

"We've taken advantage of the cold, slow start to the season by reducing our variable costs," says Mr Crosbie-Dawson. "That hasn't just been the case for spring barley: we've been able to do that in our winter wheat as well."

In winter wheat, he has spent £30/ha less on agrochemicals, having not used a T0 spray and saved £20/ha on post-emergence grassweed control.

Cover crop mixes on test at Freefolk Farms

Name

Species Mix

Cost (£/ha)

Comments

1

Simple EFA

80% oat

20% mustard

17

Cheap

Modest benefit mix

2

Complex EFA

56% rye

20% radish

4% phacelia

20% vetch

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40

Deep rooting

Soil fertility

3

Short catch non-EFA

15% black oat

20% linseed

20% buckwheat

10% mustard

15% radish

20% peas

32

Quick growing mix

Use after rape, before wheat

4

Long Cover

35% rye

5% phacelia

25% vetch

15% turnip rape

20% barracuda radish

45

Long mix

Use right through and in front of maize etc

5

Grazing

70% winter oat

15% turnip rape

15% stubble turnips

25

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For grazing

Could be switched into black oats/vetch

6

Multi-mix

20% winter oats

20% rye

15% radish

5% phacelia

10% buckwheat

5% crimson clover

5% berseem clover

10% linseed

10% sunflowers

35

Soil health enhancement and good rooting depths

Wheatsheaf Farming Company, Hampshire

Cover crops have been an integral part of David Miller's arable farming system since 2010.

All of his spring cropped land has had cover crops for the past five years – with Wheatsheaf Farming Company also making the move to no-till in that time and putting the emphasis on soil health.

"They are a continuation of our system as we are not moving the soil, so the rooting effect is important for building soil biology," explains Mr Miller.

"As a result of their contribution, we are making a lot of savings now."

Those savings include nitrogen, which he has been able to reduce by 10%, as well as potash, which hasn't been applied for the past four years. Instead, di-ammonium phosphate (DAP) is used in the autumn, thanks to a derogation from the Environment Agency for use in a Nitrate Vulnerable Zone (NVZ), with a DAP/urea mix used in the spring.

His diesel use has fallen by 30%, dropping from 85 litres/ha to 60 litres/ha. Slugs were a problem initially, but he now uses ferric phosphate-based slug pellets at drilling and continues to straw rake everything.

"As the system settles and soil health improves, you get more natural predators," he comments.

Mr Miller has reduced his cover crop seed costs to £20/ha, by buying straights. Where he is growing an early cover crop, he uses a mix of berseem clover, vetch, lupins, phacelia and buckwheat, while his later sown mix is based on spring beans and vetch.

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He also follows some basic cover crop rules – with no brassicas being used in the mixes to prevent issues with the farm's oilseed rape and no cereals included where spring barley is to follow, so that disease and pest carryover is minimised.

PT Hosier and Son, Wiltshire

George Hosier, who operates a mixed farming system in Wiltshire, has introduced 200ha of cover crops based on a multispecies mix costing £30/ha.

With a beef suckler herd and sheep, he plans to graze all of his cover crops, as he finds that the following crop establishment is better behind grazing.

"It also has the benefit of spreading the cost between two enterprises," he points out. "The cattle tend to be used on the crops on lighter land."

His objective with cover crops is to build up soil biology and increase organic matter, with a range of rooting depths being exploited. Another no-till enthusiast, Mr Hosier operates a very diverse and flexible rotation, with oilseed rape being grown only once every 10 years.

"That way, it's fine to have brassicas in our cover crop mixes. The same applied to peas and beans, which are also grown 10 years apart."

He has also seen significant savings, with nitrogen fertiliser use falling by 10-15% on his wheat and even more on spring barley. No bagged P and K has been applied for the last two years, while seed treatment and insecticide use has also been eliminated.

With a Cross Slot drill, he is able to drill most of his spring barley into the cover crops, which are then terminated after the drilling operation.

"The roots of the cover crop are so important, especially in a wet year," he says.

He has found that having a legume in a cover crop mix means that the life of the nitrogen in the soil is very short. With other species, the nitrogen benefit is still there a year later.

JOURNAL : Farmers Weekly

Failing to create official contracts for family members that detail the terms and conditions of employment could lead to legal problems, succession planning issues, and even the break-up of families, a legal expert has warned.

Although there has often been relaxed agreement among family members, with discretionary payments the norm until a partnership agreement is put in place, this approach could land employers in hot water, says Lindsey Knowles, employment solicitor and partner at Kirwans law firm.

She is warning parents that when it comes to employing family – even children who they are planning to bring in as partner – they have to assume the role of employer.

See also: Business Clinic: How can I recruit good farm staff?

The fine print

Depending on the employee's age, working time restrictions may need to be in place

Be aware of the various types of contracts you could offer and pick the most suitable

If an employed child is over 16 and earns more than the National Insurance contributions primary threshold, the employer will have to pay these on their behalf

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Employers must be able to provide evidence that the money has actually been paid to their child or relative

Relatives are entitled to the same rights as non-family staff members, including a clear role and job description, performance expectations, appraisal schemes, hours of working and overtime arrangements

As an employee, a family member will also have the same legal rights as other employees, meaning they could bring claims for discrimination or unfair dismissal

That means following the law on pensions, minimum wages and working conditions for employees.

Self-employed farmers who live and work with relatives helping on the farm as part of their family chores don't need to worry about contracts or the minimum wage for as long as that situation remains in place.

The difficulty comes when the arrangement veers from a straightforward set-up.

For example, if the adult child has moved out of home yet is still working on the farm, or if the farm has evolved into a limited company status, then an employment contract has to be drawn up.

Ms Knowles recommends having a solicitor either create, or at the very least look over, new contracts to ensure that any newly employed family member is treated in exactly the same way as other non-family employees, as there could be trouble ahead for those who fail to do so.

Each employee, including family members, has to be hired to do actual work on at least the national minimum wage, or the agricultural minimum wage if it states that in their contract and it started prior to 1 October 2013, or – in Wales – the Welsh agricultural minimum wage if it is higher than the national minimum wage.

There must also be evidence that this work is taking place and the wage must be realistic; HMRC may question a £50/hour rate for picking fruit.

Farmers also need to check whether the employee requires a workplace pension scheme, and ensure that employers' liability insurance is in place.

Other staff members

Talk to staff in advance about the new appointment to reassure them of minimal change

Consider introducing performance-related pay if this is not in place to reduce concerns of preferential treatment for your relative

Ensure your offspring or family member is not treated differently from current members of staff in terms of working conditions, promotions, wages or respect

Encourage open communication to avoid any build-up of resentment

JOURNAL : Farmers Weekly

With rising incidence of fusarium ear blight and changes to mycotoxin legal limits on the horizon, experts are advising wheat growers to adopt a more water-tight, integrated approach to minimising the problems in future seasons.

Fera started recording incidence of Fusarium ear blight symptoms in 1991 and since that point, there have been three seasons of severe infection: in 1998, 2007 and 2012 (see graph 1).

While there have been fluctuations after each disease explosion, levels have never returned to pre-epidemic heights and each has represented a step change in risk to the yield and quality of UK wheat crops.

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See also: Angled sprayer nozzles give best wheat ear disease control

Of the *Fusarium* species, *F. culmorum* has historically dominated UK populations, but over the past dozen years, *F. graminearum* has come to the fore (see graph 2) and, worryingly, it is the most significant mycotoxin producer.

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In addition, unlike *F. culmorum* which is spread locally by rain splash, *F. graminearum* completes its sexual phase on crop debris and produces air-borne spores capable of travelling greater distances.

Risk factors

The rising occurrence of ear disease and the shift to a more dominant mycotoxin-producing *F. graminearum* began in the South-West and moved across the south coast and up the eastern seaboard to the East Midlands, around the Wash.

According to Harper Adams University expert Simon Edwards, a combination of factors is at play, with increasing maize production and a slight rise in temperatures favouring its proliferation.

In hotspots such as the East Midlands, although maize is now grown more widely, an increase in reduced or zero tillage establishment methods in an intensive cereal-growing area is also contributing.

The combination seems to be creating a perfect storm, which, given the right conditions for *F. graminearum* – wet and warm at anthesis – could result in levels of disease, mycotoxin infection and unsaleable grain not seen before.

The mycotoxins produced by *F. culmorum* and *F. graminearum* include deoxynivalenol (DON) and nivalenol (NIV). Both produce zearalenone (ZON) later in a delayed **harvest**.

Looking ahead, Prof Edwards says it was recently confirmed at the European Commission's Mycotoxin Forum that the permitted threshold in grains for human consumption looks set to change.

So, with increased fusarium risk and potentially less wriggle room on mycotoxin limits in the future, what should growers consider for countering the threat?

Fera expert Phil Jennings says three key factors influence the occurrence of fusarium and subsequent mycotoxins, including the region where a farm is located, the season and agronomic practices.

Tillage choices

The first two factors growers can do little about, but agronomic practices can be tweaked to minimise risk, such as not overloading rotations with maize and re-evaluating tillage practices.

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While reduced or no-till is now considered a key component in improving soil health, there may be a trade-off in exposing crops to increased *F. graminearum* risk – something seen in North America where it is a devastating problem for wheat in no-till maize rotations.

With spore-producing perithecia resting on infected crop debris, release of wind-borne ascospores readily infect surrounding wheat crops, so burying residue can help reduce inoculum build up.

“Growers should also be looking to apply appropriate fungicides at the right time during flowering,” Dr Jennings says.

Harvest management

Prof Edwards says another area that can be reviewed is **harvest** management, with any delays in getting wheat crops cut risking the build-up of DON and ZON, not to mention the loss of quality characteristics such as Hagberg falling numbers and specific weight.

He urges growers to look at combine capacity, with larger and more efficient machines capable of taking advantage of any small windows during a catchy **harvest** helping to minimise mycotoxin development.

“Also make sure the combine is well maintained and you have a good access to parts and service to minimise any downtime,” he says.

Along with reliable, high-output combining, boosting grain storage and drying capacity will also aid growers in the quest to minimise mycotoxin levels and rejected grain.

“Plan to cut a proportion of the crop even if a few percent need to be knocked off the moisture content with the dryer, and prioritise milling wheats. It is a huge gamble leaving it out in the field,” adds Prof Edwards.

Future innovation to help battle fusarium and mycotoxins

1. One-stop decision support stop

The Europe-wide MyToolbox project is aiming to provide growers with a one-stop shop for decision making and advice to reduce mycotoxin levels in cereal crops.

Harper Adams University’s Simon Edwards has been involved in the project, which has been evaluating models used in several European countries, where farmers enter local data and are provided with a mycotoxin risk assessment.

This can then be used to influence decisions pre- and post-**harvest**, such as fungicide inputs, **harvest** scheduling and storage.

Currently, an Italian model is being tested with Dutch data and vice versa to establish accuracy in differing conditions. Data from the UK will also be fed into the two models to establish suitability.

It is hoped that an online tool will be launched in 2020 across Europe, which will include wide ranging information on the control of fusarium ear blight and mycotoxins.

2. Spore trapping for accurate fusarium control

Scientists at Rothamsted Research are investigating the use of automated spore traps to enable more targeted and accurate fungicide applications, working with industry partners on Innovate UK and AHDB-funded projects

Produced by Rickmansworth-based Burkard Manufacturing **Co**, the spore traps process about 300 litres of air each minute. They can then identify which pathogens are in the “soup” and sends a text message to a website, allowing the farmer or agronomist to be alerted to the disease threat.

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While much of the work so far has focused on potato blight, sugar beet diseases and other cereal and oilseed rape threats, Rothamsted's Jon West says it could also be useful in quantifying fusarium risk as wheat crops reach flowering.

Some initial investigations have been carried out in conjunction with AHDB and ADAS, but only at the low fusarium risk site at Rothamsted, so Prof West would like more funding to broaden his research into hotspots such as the South West and around the Wash.

"This is a new type of precision agriculture. It's not only about knowing which fungicide to use, but also when to apply it and only when it's absolutely necessary," he explains.

3. Better varietal resistance in the pipeline

It is widely accepted that wheat varieties in the UK are more susceptible to ear blight than those in other parts of the world, but that may be about to change as researchers seek novel sources of resistance.

UK breeders haven't needed to focus on Fusarium resistance, as it hasn't been a problem until the recent hike in maize area and F graminearum becoming the dominant species.

In response to a growing concern, Paul Nicholson at the John Innes Centre in Norwich is leading a project which aims to address the weakness of UK wheats by introducing resistant traits.

He says there are three options for doing so, with the first bringing in genetic markers for "exotic" resistance traits from China, something that has been done with some success in North American breeding programmes.

The second aspect of the research is looking at wild relatives that can be crossed into elite wheats in the hope that the progeny will inherit an ability to resist Fusarium.

The third is investigating the possibility of knocking out "susceptibility factors". It is thought that Fusarium fungi disrupt the plant's signalling pathways for growth and defence, so it can infect without any resistance.

If the "susceptibility" gene can be removed or disabled without interfering with other valuable traits, it could produce much more robust wheats.

"We hope to see a dramatic improvement in varietal resistance within 10 years," adds Dr Nicholson.

In addition, he points out that AHDB is revising the way it scores resistance to ear blight in Recommended List trials, which will help better tease out subtle differences between current varieties.

JOURNAL : Farmers Weekly

Growers are being urged to highlight the responsible approach they take to crop management – or face the prospect of further restrictions as the government pursues a "green" Brexit.

The need to demonstrate that farmers use a range of methods – not just agrochemicals – to manage pests and diseases is seen as key to ensure policymakers understand the complexities of modern farming techniques and avoid imposing additional regulations on the sector.

See also: Biopesticides play a greater role on arable farms

The issue was discussed by more than 40 growers, agronomists, academics and other industry professionals who gathered on Tuesday (7 June) for the first integrated pest management (IPM) summit hosted by the NFU at Stoneleigh Park, Warwickshire.

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There are many definitions of IPM but most involve the careful consideration of all available plant protection methods and the integration of appropriate measures – including natural pest control – that emphasise the production of healthy crops with the least disruption to agro-ecosystems.

Principles of integrated pest management

Crop rotation

Cultivation techniques

Seed breeding

Balanced fertilisation, liming, irrigation and drainage practices

Hygiene measures

Beneficial organisms

Thresholds for harmful organisms

Monitoring

Review of options

(Source: The Voluntary Initiative)

Scrutiny

Essex farmer and NFU combinable crops chairman Tom Bradshaw said: “One consistent challenge that we have faced as an industry over the past decade is the intense scrutiny that our use of plant protection products has been under.”

High-profile debates over glyphosate and neonicotinoids were just two examples, said Mr Bradshaw.

Far more crop protection products would be thrust into the limelight as the EU sought to clamp down on endocrine disruptors, he added.

Brexit would not resolve the situation because the UK would likely have to continue abiding by the same rules if it was to remain a valued EU trading partner, added Mr Bradshaw.

This meant farmers had to raise their voice and the sector’s profile to get their message across.

“The thought process that the vast majority of us go through during the farming year is about minimising the use of plant protection products – and yet we fail to talk about the basics,” Mr Bradshaw told the meeting. “We need to shout about what we do.”

Government ministers and civil servants often didn’t realise that most farmers used IPM techniques to reduce agrochemical applications.

They included delayed drilling dates, spring cropping and reduced cultivations (see ‘Principles of integrated pest management’, above).

Complex

Mr Bradshaw added: “Going forward we need to make sure policymakers realise that farming is incredibly complex and to make sure there is a safe, secure, affordable supply of food we need access to all the tools in the toolbox.

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"New products are few and far between so we need to make sure we do everything we can to maintain access and prevent resistance to the current products we have access to. Astute implementation of integrated management techniques is crucial to that."

Yorkshire farmer and Voluntary Initiative chairman Paul Temple said demonstrating that IPM had environmental benefits would help fend off the threat of heavy legislation – and encourage policies that allowed growers to self-regulate rather than face inspections.

A similar view was expressed by Lincolnshire agronomist Sean Sparling, chairman of the Association of Independent Crop Consultants, who said IPM could be seen as a hybrid of conventional agriculture and the best of organic production.

Farmer Phil Jarvis, who is head of farming at the Game and Wildlife Conservation Trust's Allerton Project in Leicestershire, is already using reduced tillage IPM techniques to combat cabbage stem flea beetle in oilseed rape following the withdrawal of neonicotinoid seed treatments.

Rather than regulating farmers, Mr Jarvis said it was vital the benefits of IPM were reflected in the government's forthcoming Agriculture Bill, which will detail the government's post-Brexit policies for the farming sector when it is published later this year.

Case study: Farm measures business benefits of integrated approach

The cost benefits to farm businesses of adopting integrated pest management (IPM) techniques will be quantified in a new collaboration between the AHDB and the Linking Environment And Farming (Leaf) initiative.

Kent grower Mark Bowsher-Gibbs is farm manager at Blackbird Farming – the trading name for GH Dean & Co – and hosts the AHDB's Sittingbourne Monitor Farm. The farm has been Leaf marque certified since 2007 and has now become a Leaf demonstration farm.

Mr Bowsher-Gibbs carries out an annual Leaf sustainable farm review to record the IPM techniques carried out across the business. It identifies areas where they are performing particularly well – and areas where there is space for continual improvement.

"Where we've got to do more is in energy use monitoring, reducing waste, recycling and reducing greenhouse gas emissions," says Mr Bowsher-Gibbs. "On the welfare, social health, nutrient management and soil quality side, we were getting top marks, and that's great to know."

Analysing the outcomes of the Leaf review using the AHDB's Farmbench tool will now establish the economic impact of some of these practices, helping the farm to make the most of natural resources and will improve business productivity.

The business has already benefited from a labour and machinery cost review, recently carried out on behalf of AHDB by consultants from Strutt & Parker. The results enabled him to compare his own strip-till performance with other farms.

Data confirmed the farm operates a low-cost and sustainable crop establishment system. But it also revealed a higher than average amount of labour per hectare. Mr Bowsher-Gibbs said: "That doesn't mean it's wrong for us, but it does make us look at our approach to labour."

The summer Monitor Farm meeting at Sittingbourne, which is open to growers, takes place on 19 June. For details, visit cereals.ahdb.org.uk/sittingbourne

Dutch company brings integrated pest management out of the greenhouse into the field

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Integrated pest management (IPM) techniques are being brought out of the greenhouse and into the field by a Dutch-owned company making big inroads in UK agriculture.

Based near Rotterdam, Koppert Biological Systems specialises in the use of predator insects and other forms of natural pest control as an alternative to agrochemicals. The company had a 200m (£175m) turnover in 2017 and says business is growing at 12% annually.

The use of biological control has reduced the use of crop protection chemicals by up to 95% in indoor tomato cultivation, says Koppert marketing director Peter Maes. But he adds: "We are moving more and more from horticulture to outdoor field crops."

Four key factors are driving the market for IPM products, says Mr Maes. They are pesticide resistance, residue management, the need to increase productivity and quality, and consumer interest in organic food.

In the UK, Koppert is working with agritech company Azotic Technologies using micro-organisms to capture nitrogen from the atmosphere. The companies say N-Fix can reduce fertiliser usage and nitrogen pollution as well as improving plant efficiency and increasing yields.

Koppert celebrated its 50th anniversary last year and set up its UK subsidiary company at Haverhill, Cambridgeshire in 1981.

But Mr Maes says he believes IPM techniques are still in their infancy – with increasing potential to boost farming productivity.

Koppert says its "Rotabug" machine which releases beneficial predator insects to destroy crop pests can reduce labour costs from £60 to £6/ha.

Initially developed as a blanket treatment for indoor strawberries, the company plans to use drones to spot-treat outdoor crops within five years.

That potential could be realised more quickly with more government support for research into alternatives to active ingredients, says Mr Maes. "A lot of education needs to be done so regulators understand what we do – and what can be achieved."

JOURNAL : Farmers Weekly

A shortage of Group 3s and a glut of Group 1 wheats has resulted in biscuit wheat premiums rivalling that for full breadmakers, but without the extra growing costs.

Paul Taylor, head of crop marketing at Agrii, highlights that premiums for some buyback contracts are currently £10-£12/t for this harvest in 2019, although this is expected to ease back next season.

"It is taking that level of premium to get farmers interested in growing Group 3s." Historically, the premium has been £2-£3/t.

See also: Top-quality wheats may cut imports and reduce risks from Brexit

However, a newly recommended variety could help biscuit wheats bounce back, offering high yields and better disease resistance.

Previously, Group 3 was the biggest wheat market, helped by a clutch of good varieties including Claire, Consort and Robigus, says Chris Guest, seed manager at Gleadell. However, it had diminished until about two years ago.

Basset and Barrel from KWS helped to revitalise the group by reducing the yield penalty of growing a Group 3 instead of a Group 4, especially Barrel with its northern yield of 107%.

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However, their one weakness was septoria and this tended to put growers off, especially those in high-septoria areas.

Septoria

This is where newcomer Elicit comes in, bringing a higher septoria rating of 6.4, compared with 4.7 and 5.2 for Barrel and Basset, respectively.

"It is better than Revelation, which is looked upon as a good variety," says Mr Taylor.

Mr Guest adds: "Now we have a true Group 3 variety with a class-leading yield [103%], which looks strong across the whole Recommended List.

"Backed up with midge resistance and relatively stiff straw, it ticks a lot of boxes."

The variety is also suitable for later drilling, with the latest safe drilling date of late February, says Mr Taylor.

Demand

So what about demand? Mr Taylor says there is a potential Group 3 market for up to 1m tonnes and currently there is a shortfall, forcing millers to blend inferior soft Group 4s.

However, this does not work for all millers, hence there is demand for more true Group 3.

Currently Group 3 accounts for about 7.5-8% of certified seed. Mr Guest believes that, with Elicit in the sector, this could rise to 10% next season, with Barrel and Elicit being the two largest by market share.

"It [Elicit] is equivalent to the top-yielding Group 4 soft and is just 3% behind the top Group 4 hard. The premium can offset this yield difference."

In addition, there is less pressure over specification, not needing extra nitrogen fertiliser or inputs like group 1s, having a general specification of 10.7% protein.

So the combination of a domestic shortage and a new variety with no significant weakness, both agree that growers should have confidence to grow more Group 3.

Elicit stands up well

Colin Welby is one of only two farmers in the UK to have grown Elicit wheat last season and he highlights its standing power.

The seed grower, based near Spalding in Lincolnshire, says it stood up well last summer, in a season that tested wheat. It also combined well, he adds.

He grows diverse crops on silt, including wheat seed crops for Elsoms, sugar beet, daffodils and brassicas.

He drilled the 6ha crop on 5 October and notes that it established well. "There was good emergence and early vigour."

The crop yielded 10t/ha, having received a three-spray fungicide programme plus two growth regulators.

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JOURNAL : Farmers Weekly

Triticale's ability to out-yield other crops as a second cereal, combined with growing markets like anaerobic digestion, means it is worth another look for the coming season, say researchers.

AHDB-funded work done by ADAS has shown that triticale can be grown for both feed grain and wholecrop, opening up a place for the crop in the energy markets and making it suitable for feeding to both ruminants and non-ruminants at the right inclusion levels.

Its poor-relation image is out of date, believes Daniel Kindred of ADAS, who has seen it out-yield first wheats by 3% and second wheats by 8% in trials over six years, with its greatest advantage being as a second cereal.

This is especially tempting given the poor performance of second cereals last **harvest**.

See also: Q&A: Tips on using anaerobic digestate as a fertiliser

Alternative feedstock for AD

He also highlights that triticale's high biomass production and earliness make it an alternative feedstock for anaerobic digestion (AD) plants – something which is often overlooked.

“Rye is promoted for the AD market, but triticale comes in with lower seed costs, slightly earlier maturity and the flexibility of keeping it for grain at **harvest** if prices become preferable,” he says.

Currently, the bigger potential market is as animal feed, he acknowledges, as although protein levels tend to be lower than those of feed wheat, triticale has higher lysine, methionine and threonine levels – making it especially suitable for feeding to pigs.

Resilience

In the field, its high yields, resistance to septoria, take-all tolerance and fewer pest problems are all useful, while the crop's competitiveness against blackgrass and lower nitrogen requirement than other cereals are further advantages.

“It is more efficient at utilising nitrogen than wheat, so tends to need around 40kg/ha less,” he explains.

In terms of gross margins, it has an advantage of around £60/ha, notes Dr Kindred.

“The latest varieties are giving much higher yields than many growers associate with triticale. It's worthy of a place in the rotation if you have a market for it.”

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Performance around the country

Agronomist David Lines, Herefordshire and Shropshire

For AICC member and independent agronomist David Lines, triticale has become a serious contender for some of the more marginal land that he is involved with in Herefordshire and Shropshire, where it will easily yield over 8t/ha.

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Now looking after an area of more than 200ha – a threefold increase since last year – it is mostly being grown for feed grain and is often supplied to chicken farms in the area.

“There is a local market for wholecrop for AD, but that tends to be met by hybrid rye with its faster growth and greater bulk,” he says.

Five years ago, triticale was introduced on one of his farms with fields where rabbits were a problem and it performed well, recalls Mr Lines. “Triticale just doesn’t have the same appeal to rabbits. It seems to shrug them off and grow away unheeded.”

Since then, it has also proved cheaper to grow than winter barley and capable of producing considerably more straw – something which has a value in the west. As a result, the crop’s area has increased, especially on lighter soils.

In most seasons, he recommends a three-spray fungicide programme, as triticale is prone to yellow rust. “We will do a T0, T1 and T2, with a robust plant growth regulator programme as well. Essentially, we treat it like growing rye.”

One observation about the crop this year is that it has developed a massive root system and has coped with the very wet spring conditions better than other cereals, he notes.

Agromomist Charles Starkings, East Midlands

Zantra agronomist Charles Starkings has got triticale growing on five of the farms that he looks after in the East Midlands, where it is proving to be a popular low-input crop choice.

To date, yields have been very good and newer varieties such as KWS Fido are giving consistent results of over 10t/ha and have hit the dizzy heights of 13t/ha on one farm, he reports, while the crop’s management has been straightforward.

“It’s being grown for grain and it typically sells at a £10 discount to wheat,” he says. “It’s either being used as a more profitable alternative to second wheat or where growers don’t want winter barley in the rotation.”

A few more herbicide options than are available in barley and a very competitive growth habit make triticale good for blackgrass situations, adds Mr Starkings, who believes it has a role in helping to smother grassweeds and limit seed return.

“We tend to use a pre-emergence herbicide on it where blackgrass is an issue, and then let it do its job.”

Triticale is cheaper to grow, in terms of fungicides and nitrogen, but it does need attention with growth regulators, he says. “It can grow very tall and will put on a great deal of biomass quickly.”

In a normal year, he will advise a two- or three-spray programme, with epoxiconazole and metrafenone aimed at yellow rust and mildew in early spring growth, after which he focuses on keeping yellow rust out.

Varieties

There is an AHDB Descriptive List for winter triticale, so growers can compare the performance of varieties grown in UK conditions.

Dominating the market is KWS Fido, which has a yield of 105%, but there are three new additions to the list for 2018 drillings.

Kasyno from Senova has taken the top spot, with a 2% yield advantage over Fido and shorter straw. Also recommended are Dometica on 100% and LD17 on 99%.

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Case study

Bridgnorth Monitor Farm

Triticale is being grown for the first time this year by Adrian Joynt, farm manager at Goulburn Farms in Shropshire, and host of the AHDB Bridgnorth Monitor Farm.

With 26ha of winter triticale KWS Fido on some very light ground, he has replaced some winter barley with the crop to look at its on-farm potential and has no concerns about marketing it at harvest.

"We have some options – there are two local merchants who are happy to take it, we can use it to feed our own cattle," he says.

Anaerobic digestion is another possibility, he adds. "We are already growing hybrid rye for a local AD plant, so that adds to our choice of outlets. But we didn't set out to grow it with that market in mind."

Mr Joynt points out that triticale is worth a bit more than winter barley and has the added bonus of lower growing costs and a higher yield.

"It needs less nitrogen, fewer fungicides and the seed is cheaper," he says. "It has looked far better than wheat or barley would have done on the same site, but it's still early days."

JOURNAL : Farmers Weekly

For young people dreaming of running their own farm business, getting into poultry could be an ideal way to build up cash and experience if land and money are proving hard to come by.

British agriculture faces a dilemma. While interest in farming seems strong among the younger generations, the dream of getting into farming turns to a nightmare when the mammoth costs of buying or renting land and machinery, and building sheds, stores and parlours are laid out.

See also: 8 secrets to progressing up the ag careers ladder

While it isn't always the most obvious route into agriculture, poultry farming has helped young farmers build up capital to pursue additional ventures, gain an extra income source or create space for themselves in the family farm business.

Breeding and selling pullets

Tom Parry

Age: 23

Location: Brecon, Wales

Poultry enterprise: Point of lay pullets

For Welsh young farmer Tom Parry, breeding and selling point of lay pullets was the ideal way to start small and build up enough money to move into sheep and cattle farming.

Getting into poultry when he was just eight years old, today Tom has about 10 hens and cockerels including breeds that range from the more traditional Gold Laced Barnevelder to ornamentals like the Blue Silkie.

Breeding season runs from March to August, and he sells the pullets at about 19 weeks.

"Dad encouraged me into this from an early age so that I could learn about the business side of farming," the 23-year-old explains.

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His family's 85ha beef and sheep farm sits on the northern fringe of the Brecon Beacons, about 40 miles up from Cardiff.

Expanding into sheep and beef

"The poultry enabled me to get enough money together to eventually buy four Belgian Blue calves, which I hand-reared on the bucket," he says.

At 16, he was able to invest in his first Texels and today has a flock of 40 ewes, alongside 12 pedigree Blonde cattle that he keeps as part of a joint venture with his dad.

Tom points out that compared with sheep, poultry farming requires little investment to get going with a small number of birds, and this can be scaled up quickly once established.

It takes a minimal amount of time each day to keep his birds and the setup is very manageable, even though the peak selling time clashes with the tail end of lambing season.

There are good returns to be had too, he says, thanks to strong demand from the public and businesses looking for animals for their small holdings. He sells hybrid pullets for £15 each, while pure-breds fetch £25.

He has customers who are prepared to travel to buy quality birds coming from across south Wales.

"It's great selling poultry to a customer base that isn't solely farmers as this widens your opportunities," he says.

"Dealing direct with customers can be a great way of building confidence to move on to larger enterprises too, but it's always great to have as a side business. I love shaking hands with people and doing a deal."

Reinvesting in poultry

He admits that he has let his breeding stock numbers dwindle in recent years as the sheep and cattle interests have grown, but now he's planning to reinvest in this side of his business because he sees it as a way of insulating himself from any negative fallout once the UK withdraws from the European Union.

"There isn't much that affects the price because the target market is mostly smallholders," he points out. "The fact that the income stream isn't really tied to traditional farming is one of the best things about it."

Social media is by far the number-one driver of sales for Tom – along with good old-fashioned word of mouth – with about 40% of total sales taken as pre-orders.

He did have a website for a while, but found it expensive and complicated to maintain compared with the Facebook page he now uses and he advertises his pullets in many online groups.

"The marketing of the birds is really key and social media helps to sell the story behind it all. Good photos are important – they've got to look visually impressive to catch the buyer's eye," he says.

"People overlook poultry, especially on the scale that I am doing it. I think they make the mistake of assuming that it isn't worth the time and money, but that's wrong because you've got to start somewhere, you can easily scale up and you can use the money you make to invest in other areas."

Free-range turkey diversification

Will Martin

Age: 34

Location: St Austell, Cornwall

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Poultry enterprise: Turkey rearing

First-generation farmer Will Martin diversified his beef and arable business with the introduction of free-range bronze turkeys for the lucrative Christmas trade.

Based near Truro in Cornwall, he and his wife Kate farm about 100ha of owned and rented land which runs a herd of 80 spring-calving Limousins alongside a small number of pedigree Beef Shorthorns.

Spring barley is grown across about 20ha for livestock feed and bedding.

Six years ago Will started hunting for a diversification to bring some extra income on to the farm, and saw turkeys as a good bet.

His feathered enterprise has grown incredibly fast, going from producing 25 birds to rearing and butchering 800 turkeys for this Christmas.

Poults arrive on the farm in June and are housed in a cattle shed with holes cut in the walls to allow the birds to roam. With an acre of land needed to rear 500 free-range turkeys, Will has plenty of room to expand.

"I wanted to add another income stream to the farm so I got some turkeys and I really enjoyed keeping them. Turkey is a really healthy, lean meat and there's great demand for it," Will says.

The birds hit maturity at 17 weeks but Will rears his to 24 weeks to improve the fat covering which makes for an extra-tasty turkey.

Xmas turkey trade

Final preparations for the festive season begin in early December, with the birds being killed, dry plucked by **hand** and hung for about two weeks to improve the flavour and give a distinctive dark colouring to the meat.

They are then **hand** finished and packed with herbs into special boxes ready for collection. About 80% are sold direct to consumers, with the rest sold through butchers and farm shops.

Prices range from £45-£75 depending on weight, and customers can pre-order on the farm's website with a £20 deposit.

"Turkeys eat a lot of food, so taking pre-orders and deposits throughout the year helps with cash-flow," he adds.

NFU Poultry Industry Programme

There's a lack of understanding when comes to poultry farming that could be at least partly to blame for the sector's struggle to attract younger generations, according to NFU poultry adviser Aimee Mahony.

That's precisely why the NFU's Poultry Industry Programme was set up, bringing together 16 young people from across the sector to inform and inspire the next generation of poultry farmers.

"There is a recruitment problem in the poultry industry, despite the fact that there are roles like assistant manager that pay about £40,000 without the need for prior experience in some cases," says Aimee.

Poultry makes a great diversification for pretty much any farm, helping to spread risk in times of uncertainty, she adds.

"We are now seeing more arable farms setting up poultry units to support their businesses. There are cases where there isn't enough work on the family farm to warrant taking on sons or daughters, so they diversify to accommodate them."

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Young poultry farmer and former Farmers Apprentice finalist Thomas Gent thinks more should consider the industry.

"People perceive it to be less muddy boots farming and perhaps more food production. It's worth considering if you're a young person who's struggling to find a way into farming."

His family farm near Peterborough has 64,000 free-range layers producing about 60,000 eggs a day for the Happy Egg brand.

The farm was originally all arable, and without enough work to support Thomas joining the family business, a poultry diversification was the clear solution to keep everyone busy.

With each person in the UK consuming about 200 eggs a year, Thomas says there's solid demand for their produce.

"We work on five-year contracts with prices locked in so it protects us from any major volatility, although feed costs can go up. The main issue that we have is hiring good staff," he says.

JOURNAL : Farmers Weekly

A familiar menace has returned to the farm. The lesser-spotted fly-tipper. Over the past couple of months we haven't had too many incidents, but a few weeks ago I had to deal with a massive pile of rubbish.

Someone had apparently decided that our wood would look much more picturesque with a pile of old carpets, paving slabs, children's toys and bits of wood full of nails.

I know it's something that most farmers have to deal with, but I still find it hard to understand why anyone would decide to do this.

See also: More Will's Way farming columns

How can someone drive into a beautiful area of woodland and decide that this is the place where they should dump their rubbish?

In theory, fly-tippers who are convicted at a magistrates' court can be handed a 12-month prison sentence or be fined up to £50,000, but this rarely happens.

The most likely outcome is that they get away with it scot-free or have to pay a small fine to the council.

This simply isn't good enough, and I hope Mr Gove at Defra decides to crack down on these selfish individuals very soon.

Data-driven doses

Of course, we don't spend all of our time clearing up other people's unwanted belongings. We recently tested out the Isaria crop sensor I wrote about in one of my previous columns, and it was a promising start.

It appeared to do exactly what it was supposed to. In the poorer areas of the field, it told the spreader to deliver more nitrogen and in the better areas it directed it to spread less.

The principle behind it is pretty simple but the technology that makes it work is very clever. It's too early to judge its effectiveness yet, but I'm hoping to see its benefits by the time next year's harvest arrives.

At the moment we're still working out what to do with all of the data it produces, but I'm fairly confident that we'll have got our heads around it by the spring, when we plan to start using it again.

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Countdown to harvest 2018

It doesn't feel like very long ago that I was writing about the long, wet winter in Norfolk, but now it's gone the other way.

We've had dry and hot conditions here for several weeks now and the crops are definitely starting to show it.

If you walk down the tramlines of many of the fields, you'll see cracks everywhere and the crops certainly seem to be shorter than they were at this time last year.

Luckily for us, most of our cereals were established in the autumn, but if we had decided to do more drilling in the spring I'd be a bit more concerned right now.

I still think we'll have okay yields, but I don't reckon we'll be chalking up any records.

It's hard to predict when harvest will begin, but I'm hoping that by the time I write my next column at the end of July, we'll be well under way.

JOURNAL : Farmers Weekly

The UK's first case of resistance to a monepantel wormer is a wake-up call for sheep farmers and advisers to follow best practice guidelines, an industry expert has warned.

It has emerged the farm where the case occurred, previously saw multiple resistance to other wormers meaning it was relying heavily on the newer monepantel type.

See also: Wormer resistance in sheep explained

The animals were also being moved to low-challenge pasture following treatment, which is highly selective for resistance leading to a "perfect storm" for resistance to develop.

Speaking for the Sustainable Control of Parasites in Sheep (Scops) group, Sheep consultant Lesley Stubbings said the issue revealed the dangers of failing to correctly integrate newer wormers into control programmes.

"Scops understands the farm concerned had a history of triple resistance to the 1-BZ [white], 2-LV [yellow] and 3-ML [clear] groups of anthelmintics.

"This meant they were relying almost exclusively on the newer monepantel wormer, the 4-AD [orange] group, for worm control," Ms Stubbings said.

Other sheep farmers can avoid this risk by following Scops guidelines on the use of the 4-AD and 5-SI (purple) wormers, she added.

Scops has been advising that 4-AD and 5-SI wormers should be carefully incorporated into control programmes as a quarantine drench and a mid/late season treatment for lambs.

That advice was given to avoid the exact situation where the other three groups were no longer effective and the group 4AD was relied upon alone, Ms Stubbings added.

The resistance case was reported in the Veterinary Parasitology journal

Scops advice on orange and purple wormers

The two newest wormer groups (4-AD and 5-SI) should be alternated and incorporated into worm control programmes on all sheep farms, not left until others fail

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There are only two occasions when a group 4-AD or 5-SI should be used – quarantine, and mid/late season as a one-off annual drench for lambs

Groups 4-AD and 5-SI should only be used at other times under veterinary direction and then only if the full anthelmintic resistance status of the farm is known.

Effectiveness of products used should be monitored carefully

Ensure the correct dose rate (by weighing animals and treating to the heaviest in a group), calibrate the gun and administer correctly, over the back of the tongue

If moving to low-challenge pasture after treatment, sheep must either be left on the dirty pasture for four to five days before moving, or at least 10% of the animals left untreated

Check the efficacy of wormer treatments on a regular basis

JOURNAL : Farmers Weekly

Small vehicle and motorbike specialist Yamaha has updated its ATV and UTV offerings for 2019. We run through the highlights of the new models.

ATV

Kodiak 700 EPS SE

The new model is powered by Yamaha's second-generation 686cc four-stroke engine that features a new ECU, which now offers more torque and improved fuel economy, we're told.

See also: On test: Yamaha launches Kodiak 450 ATV

Running Yamaha's automatic transmission and having two- or four-wheel-drive with diff lock will help get you out of sticky areas and, if that's not enough, a 1,139kg front-mounted Warn winch can be specced.

A plush seat for extra comfort has the ability to carry a 140kg payload plus the rider and, is able to tow up to 600kg.

Grizzly 700 EPS Special Edition

A high-standard specification on the new Grizzly ATV includes Yamaha's tried-and-tested Ultramatic CVT transmission as well as a easy-to-use two- and four-wheel-drive options.

The Grizzly is equipped with a second-generation 686cc engine that has been remapped to reduced fuel costs, the company says.

This flagship model is fitted with 14in aluminium wheels and chunky Zilla 27in tyres, while long travel-adjustable suspension gives a payload of 140kg and a towing capacity of 600kg.

UTV

Wolverine X2

The new Wolverine X2 SE features a compact chassis, driven by an 850cc twin-pot engine that has been developed using the knowledge gained from the design and manufacture of the company's other off-road vehicles.

Low engine noise allows conversations while moving and a full cab gives plenty of protection from the great outdoors, says the firm.

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Standard features include a tilt bed with a 272kg capacity and hefty 908kg towing capacity, while Yamaha's CVT box, long-travel piggyback shocks as well as electronic power steering mean it's a well-specced standard vehicle.

Prices for all models will be available closer to the launch date.

JOURNAL : Farmers Weekly

The National Federation of Young Farmers' Clubs is facing a six-figure funding shortfall after a proposal to increase its funding from members was watered down in an AGM rebellion.

The national body is set to be short of £380,000 over the next two years after northern counties, led by Lancashire, lined up to voice their disapproval of a £5 increase per YFC member in the national levy, currently set at £16.38.

They succeeded in passing a more modest increase of £1.64 per member after winning support from representatives from Yorkshire and Northumberland at the AGM, held in the Winter Gardens, Blackpool, as part of the NFYFC Annual Convention.

See also: Video: Pints of milk and miles of smiles in Blackpool

Katy Dutton, speaking on behalf of Lancashire YFC, said that they could not sanction such a significant increase in funding for Stoneleigh without putting services in their home county under threat, as subscriptions had already been fixed for this year.

"If your mortgage payments increased by 30% in one year you might have something to say about it," she said. "Why so much at once with no warning?"

But incoming NFYFC council chairman Lynsey Martin, while praising young farmers for exercising their democratic rights, warned that the smaller increase could cause funding shortfalls in future.

She said: "The approved increase of £1.64, will still go some way to help NFYFC's finances but is obviously not the amount needed to support the necessary changes.

"While there are challenges ahead for the Federation, NFYFC will work hard to ensure we can still provide services that support and develop rural young people across England and Wales."

What is the NFYFC levy?

County federations are obliged to send a portion of the subscriptions they collect from members to the National Federation of Young Farmers' Clubs, which uses it to fund administrative staff and events such as national competitions and the Annual Convention.

The rest of the subscription is retained by counties to fund local organisers and events, such as the annual Rally and other competitions.

County federations have also been under financial pressure in recent years after other sources of funding, such as county council children's services budgets, have been slashed.

JOURNAL : Farmers Weekly

A Yorkshire farmer found not guilty of driving his combine carelessly on a high-speed rail crossing is calling for the junctions to be adapted to suit agricultural machinery.

David Atkinson, 55, of Hawke House Green Farm, Moss, Doncaster, was charged with driving a vehicle on a road without due care and attention after an incident on the Moss Gate East Coast mainline crossing on 5 August 2017.

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Mr Atkinson told Doncaster Magistrates' Court on Friday 15 June that he drove his Case Axial Flow combine and header onto the crossing, but had to stop to allow an oncoming vehicle to pass.

See also: Campaign launched to stay safe when using level crossings

By the time he set off again, the lights and gates activation sequence had commenced.

The British Transport Police, using precisely recorded timings of the light sequence, brought the prosecution against Mr Atkinson on the assumption that the warning lights must have been flashing when the combine and header entered the crossing.

But the court accepted that Mr Atkinson had been forced to stop on the crossing after viewing CCTV photographs.

Fighting for farmers

Mr Atkinson told magistrates these crossings in Doncaster are not designed for large agricultural combinations.

"The police tried to fob me off with a fixed penalty, but why should I pay it?" he said.

"I didn't do anything wrong and the court agreed.

"I fought this case for all farmers and I would like to thank the NFU for their support."

The NFU offered free advice to Mr Atkinson as part of his membership and then referred him to a law firm for further advice.

Call for change

Speaking after the case, Mr Atkinson's solicitor, Simon Catterall, of Jacksons Law Firm, said this acquittal has significance for farmers all over the country.

He added: "The barriers coming down on this combine could have resulted in a very serious accident and we hope the authorities will now recalibrate these crossings so they can accommodate large agricultural machinery."

Farmers Weekly contacted the British Transport Police about this case, but they declined to comment.

JOURNAL : Farmers Weekly

Young farmers are optimistic about the future of agriculture post-Brexit but still fear that uneven trade deals, cheap food imports and a failure to buy British could see them lose out.

Members of Wales YFC were invited to give evidence at the Welsh Affairs Committee's Brexit parliamentary inquiry about agriculture, trade and the repatriation of powers on Tuesday (8 May).

Wales YFC member Jacob Anthony told the panel he was "totally optimistic" and was looking forward to embracing change, new opportunities and different markets.

"Let's look to the future, not be negative," he said. "We need to think about things globally, not just within the EU."

See also: Farmers Weekly's coverage of this year's YFC AGM

Trade deals

However, the young farmers do have concerns, and their biggest one lies with future trade deals and the possibility of food produced to lower standards, such as US hormone-treated beef and chlorine-washed chicken, entering the UK market at cheap prices.

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"We produce top quality food," said senior member of the year Cennydd Jones. "The last thing I would want to see is a cheap trade-off with, for example, the USA, so that Welsh farmers can't compete. It will make family farms non-sustainable."

Vice-chairman Dafydd Jones said a level playing field would be important, and that high food safety and animal welfare standards were the best selling points of British food.

What changes would you like to see for subsidies post Brexit?

Cennydd Jones: "There must be a drive to push efficiencies most of all. Subsidies should go to the farm practitioner rather than the landowner – the farmer knows the land better than anyone else."

Dafydd Jones: "The crucial thing is it has to be simple to be effective. We also need to be upskilling in the sector, especially if we want to compete with the technology and skills in places like New Zealand."

Laura Elliott: "In the future policy is going to have to support farmers who are being innovative and pushing boundaries."

Laura Elliott, Wales YFC chairman, told the committee: "We fear agriculture may be used as a cheap trade-off for other things, treated as a commodity rather than understanding its background. Farming is the lifeblood of Wales."

Buying British

Brecon and Radnorshire MP Chris Davies asked how young farmers would play their part in selling British food and products.

Cennydd Jones said: "There is a responsibility there and we want to take it up because we want a strong future more than anyone else."

Inviting school groups on to farms on educational visits worked well, he added, and formed part of one of NFYFC chairman Lynsey Martin's key aims to spread messages about food, farming and careers.

Mr Anthony said social media could also be used to raise awareness, educate and spread positive stories.

Wales' voice in Westminster

Dwyfor Meirionnydd MP Liz Saville Roberts questioned the YFC members on how the interests of Welsh farmers could be reconciled in Westminster and how to ensure Wales' voice was heard.

Ms Elliott said emphasising the importance of agriculture, food and farming was a "fundamental priority" and the YFC was keen to engage with government to make that happen.

Cennydd Jones stated that policy had to be set in Cardiff. "There are farms across Wales that are completely different so if you spread that across the whole of the UK, the differences are going to be even bigger," he explained.

However, he acknowledged that bigger issues such as bovine TB needed a UK-wide approach.

JOURNAL : Farmers Weekly

A young father-of-three has died following a farm accident in Northern Ireland.

Farmworker Toirdealbhach Larkin, aged 22, from Bessbrook, south Armagh, was erecting an outbuilding at a farm in Katesbridge, County Down, on Friday (4 May), morning when he was killed.

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According to local reports, it is understood a concrete slab fell and hit him on the head. His death is being treated as an accident.

See also: How to stay safe as silage season begins

Police officers from attended the scene and Northern Ireland's Health and Safety Executive (HSENI) has also been informed.

Mr Larkin is the son of Sinn Féin local councillor Mickey Larkin, who is also a loyal club supporter of Dromintee Gaelic Athletic Club (GAC).

In a statement on their Facebook page, Dromintee GAC said: "We tender deepest sympathy to Mickey and to the entire family circle on this sad occasion."

Tragic death

Newry & Armagh Sinn Féin MLA Megan Fearon said she was "shocked and deeply saddened" by Mr Larkin's death.

"The thoughts and prayers of all are with Toirdealbhach's family as they come to terms with the news of his tragic death and I extend my condolences to them on behalf of myself and Sinn Féin," she added.

Mourners gathered at St Catherine's Dominican Chapel in Newry on Sunday (6 May) for the requiem mass to pay their respects to Mr Larkin. His burial took place at St Mary's cemetery in Newry on Monday (7 May).

Mr Larkin is survived by his partner Aofie, and children, Thomas, Scarlett and Lily-Mae.

He is the fourth person to die following a farm accident in the UK in the past 19 days.

JOURNAL : Farmers Weekly

Zedlock has launched a new agricultural gate lock that is designed to be much tougher to break through than traditional chains and padlocks.

The Sussex firm's latest version comes with a more durable key system than was used on the original model launched in 2011.

See also: Security kit to protect your quad bike from thieves

The lock is designed to be fitted permanently to most metal field gates and is pretty much a standard five-lever deadlock hidden inside a tough zinc-plated steel box.

A 20mm-diameter stainless steel bolt replaces the regular spring bolt and is free to slide in and out until it is locked by turning the key.

Fitting a Zedlock is a DIY task that takes about 15 minutes. The kit comes with a template and large hole cutter. Other than that, only basic tools, a power drill and 3mm and 13mm drill bits are required.

Extra accessories include a double gate claw and prices start at £58.34.

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