

## *En route to World Routes*

Airline Business

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# AIRLINE BUSINESS

**Section:** AB INTERACTIVE

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## **Body**

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A FlightGlobal team is gearing up for this year's World Routes event, which is being held in the Chinese city of Guangzhou on 15-18 September.

Three special issues of Flight Airline Business will be produced on site, and all the latest news and analysis will also be available on Flight Dashboard and [flightglobal.com](http://flightglobal.com).

Among the confirmed speakers for the show's conference is Tan Wangeng, president and chief executive of China Southern Airlines, which is based in the city and operates a major hub at Guangzhou Baiyun airport.

Other speakers have also been confirmed for the conference, including Alan McIntyre, executive manager networks of Jetstar Group; Marc Cavalier, chief commercial officer of Fiji Airways; and Jay Lingeswara, deputy director of Vietjet Air.

Keynote topics will include how to maximise route opportunities in China, the opening up of global skies, plus the low-cost long-haul business model.

The conference takes place alongside the usual "speed-dating"-style discussions between airlines and airports.

The venue is the China Import and Export Fair – one of Asia's largest exhibition venues, which hosts the Canton Fair twice a year.

FlightGlobal will also have a stand at the show, where delegates can find out about our schedules and fleets data, along with news and analysis products.

Organisers predict 3,000 delegates will attend from 110 countries. Some 300 airlines, 700 airports and 130 tourism authorities are expected to be represented.

Guangzhou is one of the world's oldest trading hubs, and its big contribution to China's economy is reflected in the late-April opening of a new terminal at the city's airport.

[flightglobal.com/WorldRoutes](http://flightglobal.com/WorldRoutes)

KLM

China Southern chief executive Tan Wangeng is a keynote speaker

JOURNAL : Farmers Weekly

The fourth annual Love Lamb Week has started and farmers, producers and consumers alike have all been sharing their love for the animal and the meat on social media.

Love Lamb Week (1-7 September) was created by Cumbrian sheep farmer Rachel Lumley in 2015 and has grown into an industry-wide initiative involving the AHDB, the National Sheep Association, the NFU, Red Tractor, meat promotion body HCC in Wales, the Livestock and Meat Commission for Northern Ireland, and Quality Meat Scotland.

It aims to increase awareness and sales of lamb among UK consumers and this year the focus is on the seasonality and sustainability of lamb production.

See also: Young sheep farmers share tips on year-round lamb marketing

To support the campaign, share your lamb and sheep farming pictures and stories online using #LoveLamb and #LoveLambWeek.

We've picked some of the best Twitter posts as Love Lamb Week begins:

<https://twitter.com/CowleyHillLleyn/status/1035813437799129088>

<https://twitter.com/FearnFarm/status/1036339999845875714>

[https://twitter.com/WelshLamb\\_PGI/status/1035772518831939584](https://twitter.com/WelshLamb_PGI/status/1035772518831939584)

<https://twitter.com/LoveLambWeek/status/1036257759933751296>

<https://twitter.com/lanDHorsley/status/1036236793438527488>

<https://twitter.com/LesleyPerrett/status/1036173967080546304>

<https://twitter.com/BonfieldLass/status/1035629554981916672>

<https://twitter.com/shepherdess1993/status/1035871636883468288>

<https://twitter.com/NFUtweets/status/1035847253838233602>

<https://twitter.com/natsheep/status/1036535519193296897>

JOURNAL : Farmers Weekly

Arla Group's board of directors has proposed paying out 2018's entire net profit to its European farmer owners following the difficulties experienced by producers during this summer's drought.

The motion has been facilitated by a strong showing in Arla's half-year results, with Arla UK increasing net revenue by 2.3% in the first half of the year to £961m.

See also: Advice on winter feeding dairy animals amid forage shortages

"We are proposing that extraordinary measures be taken in this situation, and the board is satisfied with the positive development of the company's balance sheet, which makes this proposal possible," said Arla Foods chairman Jan Toft Nørgaard.

A final decision on the proposals is expected in February 2019, and if approved would be paid out the following month in line with the regular supplementary payment in March.

## Size of proposal

The size of the proposal is predicted to be worth 2-2.2p/litre (2.3-2.5EURc/kg milk) to each of Arla's 12,000 European dairy farmers, provided full-year profits of 285-310m (£256-279m) are achieved this year.

Arla usually appropriates some of its end of year profits into a 13th extra payment to producers, with the rest of the profits reinvested into consolidation within the business.

However, this motion proposes deviating from the company's usual proposal for one year in light of the difficult market conditions experienced by dairy farmers across Europe.

Arla half-year results key points compared with H1 2017

Milk price down 3% to 35.8EURc/kg (31p/litre)

Milk volume no change at 7bn kg (6.8bn litres)

Profit share for farmer-owners up 1 percentage point to 2.2% of revenue

UK revenue up 3.3% to £961m

European revenue up 2% to 5.1bn (£4.6bn)

"Our balance sheet has improved significantly over the last few years, and the strength of our balance sheet makes room for this extraordinary initiative while still maintaining our investment plans for the continued future growth of the company," said CEO of Arla Foods, Peder Tuborgh.

"If the board's proposal is approved, our financial ratios are expected to remain within the target range, provided there is a firm commitment by the BoR to return to the agreed retainment policy after 2018," he says.

## JOURNAL : Farmers Weekly

Despite having no background in computer software, farmer Matt Reimer, based in Manitoba, Canada, has managed to rig up an autosteer system that allows his 220hp John Deere 7930 and 24t grain cart to drive itself to and from the combine without anyone in the cab.

This nifty, labour-saving project is indicative of farmers' growing confidence to self-build GPS systems that are much cheaper than off-the-shelf options or can provide something that's not currently available on the market.

Broad-acre autonomy of this type remains pretty sparse, not because it is difficult to develop but due to the civil liability associated with leaving high-horsepower machinery to operate without a driver.

That has left the door open to have-a-go farmers, many of whom are using open-source computer programmes as their starting point.

This free-to-use software provides basic GPS programming and, with very little altering, allows users to wire it to a GPS receiver to get basic guidance through a standard tablet computer.

The beauty of open source is that it can be adapted to all sorts of autonomous tasks and gave Mr Reimer the software navigation algorithms he needed to make a start on his own driverless system.

During the course of a winter he managed to merge GPS receivers, controllers and a mass of wiring loom that made it possible to call the waiting tractor to his Claas Lexion 780 combine whenever he's ready to unload.

See also: Farmers build ultra-accurate GPS system on a budget

## Getting started

## En route to World Routes

“Grain carting is one of the easiest places to get started with driverless tractors as there’s no need for loads of sensors and it can always be monitored from the combine,” says Mr Reimer.

His first attempt was a fairly Heath Robinson setup that used lots of little actuators to move the necessary controls.

However, with a bit more fiddling he has been able to intervene between the tractor’s switches/levers and its Canbus system, instead routing the information through his Pixhawk controller so that he can send his own signal to the Canbus without having to touch any buttons in the tractor cab.

This saved him the laborious task of tapping into the tractor’s management software and deciphering the data it carries through a painstaking process of elimination, most of which he doesn’t need to tamper with anyway.

How does it work?

The first part of the driverless puzzle is provided by an autopilot system typically found on remote control aeroplanes. The run-of-the-mill hardware is built by a company called Pixhawk and, like most of the components involved, can be found pretty cheaply online or at electronic parts stores.

The Pixhawk controller takes information from an Arduino minicomputer to direct the tractor to particular GPS co-ordinates. For this, Mr Reimer sets one position at the side of the field to meet the artic trailer and the other is provided by the combine’s constantly-updating guidance system.

It doesn’t matter what type of guidance system it’s coupled with, provided the receiver sends its information in a form called NMEA, which is a pretty standard GPS positioning language.

“The degree of accuracy simply comes down to the receiver used – RTK or Egnos are both fine – but both need to provide the same correction signals, otherwise it gives goofy results,” says Mr Reimer.

Obviously, grain carting is a pretty simple task, with two clear destinations (the combine and the waiting artic), so the system doesn’t need to process stacks of information and make particularly clever decisions on how to get there.

The Pixhawk controller talks to a Cincoze tablet in the combine cab via long-range Wi-Fi and the information is displayed through a fairly simple app he developed. This allows him to call the tractor over and manually control its speed on a sliding button from the combine.

It positions itself with the auger spout dangling directly above the middle of the trailer. The tractor can then be set to run at a constant forward speed, allowing the combine driver to speed up or slow down to fill different parts of the trailer.

In the field

The tractor lies waiting at the side of the field (engine on) until it is sent a signal from the combine driver to say that it’s ready to unload.

Once given the nod, it sets off at creeping speed until it is told via the tablet computer in the combine cab that it can speed up. This is pretty simple to manage as the tractor has a CVT gearbox and is near-impossible to stall – things get trickier where gear shifts are involved.

Once it gets close to the combine, the two machines run at the same speed. Mr Reimer then manually slows the tractor’s speed slightly, giving him the flexibility to go faster/slower in the combine to get an even fill. It’s also possible to nudge the tractor and trailer left or right by 50cm to help fill all the corners.

It then trundles back to the edge of the field, where the lorry driver has to hop into the tractor’s cab to set the pto-powered offload auger going.

What about safety?

## En route to World Routes

The 7930 carries a flashing light and beeper on top of the cab to indicate that it's active and on the move, and all of the team carry remote controls around their neck with a kill switch safety button. This stops any signals reaching the autopilot system and, in doing so, brings it to an immediate halt.

Similarly, if the radio in the tractor that connects it to the combine loses contact or goes out of its 2km range then the tractor immediately stops, and there's a stop button on the controller app, too.

What next?

The system is pretty simple in that it doesn't interfere directly with the tractor's Canbus. That means it can't select a gear or do anything related to the tractor's hydraulics, though there are farmers in the US that have managed to develop similar arrangements that run on powershift tractors.

"The only reason to get into the Canbus is to commercialise the project, which I'm not interested in doing," says Mr Reimer.

"However, the system taken from toy aeroplanes is now a bit outdated. New hardware is constantly being developed and the latest stuff has a much greater capacity to store and process information."

This extra memory could be useful in providing the system with more intelligence, which is necessary if the corn cart has to communicate with several combines or pick a more complicated path across the field that avoids hazards such as water or telegraph poles.

"My plan is to map hazards and areas where the combine hasn't gone to avoid it flattening the standing crop. Maybe a collision sensor on the front to detect any obstacles would be useful too, and a smartphone app so that the truck driver can fire up the chaser bin's pto from his phone rather than getting in the cab."

Can I build something similar?

Anyone interested can make use of Mr Reimer's software as it's available free of charge – you can find it by googling Matt D Reimer Github where there's a rough step-by-step guide.

The seven-month project cost him up to CAD\$15,000 (£8,650) excluding the GPS, but a lot of that was lost in the research and development process – he reckons it could be replicated for closer to \$8,000 (£4,600) and in more like two months.

Commercial companies are also muscling in on the scene. Iowa-based SmartAg has its AutoCart close to production, which does a similar job to Mr Reimer's tractor, albeit with a few more features.

The geeky stuff

Central to Mr Reimer's system is the Pixhawk controller developed as a cheap autopilot for drones, cars and other robotic platforms, which is powered off the tractor's 12V supply.

The 168MHz controller module has a dedicated processor and power supply with lots of different plug-ins to transfer information between the tablet computer, Arduino mini-computers and the tractor's GPS and steering systems.

Data from the tractor's GPS receiver is sent as a NMEA stream through a convertor into the Pixhawk.

At the same time, it collects information from the wheel angle sensors, which is sent via a steering controller, and is connected to a relay that engages the flashing light and beeper on the top of the tractor.

The other source of information is the Arduino Pro minicomputer. This processes data relating to the tractor's speed and then sends signals to the Pixhawk controller as well as direct information to the steering valve to alter the tractor's direction.

## En route to World Routes

A safety pin in the Arduino unit means that unless there's a 5V power supply the tractor can be driven normally. If 5V is supplied then Arduinos default to stopping the tractor or setting the speed to slow unless a different signal is supplied from the Pixhawk – in that case the tractor drives and speed can be adjusted on the tablet.

Setting up the tablet and Arduino minicomputer required Mr Reimer to write some software programming code. A free online course taught him to write enough of his own code to make things work.

The hardware

Pixhawk controller – £150

Cincoze tablet computer, included with Pixhawk receiver – £585

Arduino minicomputer – £10

Assorted connectors, wires, tools – £1,170

AgOpenGPS

For anyone who wants to learn more about AgOpenGPS, there are extensive conversations on the North-American Combine Forum.

Canadian farmer Brian Tischler, based in Mannville, Alberta, leads many of the discussions. He developed the original software and others, including Matt Reimer, have contributed.

The programme itself is hosted in an online repository called Github and is free for anyone to download and play around with to suit their needs.

The beauty of open source software is that it can be gradually tweaked and updated.

This software is primarily for home-builders – using it to develop commercial projects isn't considered to be in the spirit of sharing information and helping others.

Other farmers we have featured in Farmers Weekly have used the software, including Charles Quick from Taunton, Somerset, with his RTK auto-steer system that cost just £1,200 to build with no ongoing subscription fees.

JOURNAL : Farmers Weekly

The CLA has called on equivalent organisations across the EU to lobby their governments to ensure a sensible Brexit agreement that benefits all those in the agri-food supply chain.

The organisation, which represents about 30,000 farm landowners, farmers and rural businesses across England and Wales, has written to members of the European Landowners' Organisation analysing the trade implications for agriculture of a no-deal Brexit.

In his letter, CLA president Tim Breitmeyer sets out the trade implications if the UK crashes out of the EU without a deal next March.

See also: Why Welsh sheep farmers are more vulnerable to Brexit fallout

This includes four points:

1. The UK would have to trade under World Trade Organisation (WTO) Most Favoured Nation (MFN) status, with the EU automatically applying its external common customs tariff on UK exports. There would be significant uncertainty in the market place, leading to negative economic consequences in the short to medium term.

2. The imposition of customs controls would lead to increases in costs in the supply chain for both exports and imports with a probable tariff equivalent cost of more than 4%. Costs on goods such as meat would be substantially higher at more than 10%.
3. Continuing government policy for cheap food and retailers' desire to keep prices low could put significant downward pressure on producer prices in certain sectors, most notably for lamb.
4. Global factors suggesting a reduction in growth in China and South-East Asia in 2019 and the imposition of US tariffs on Chinese goods could lead to a global recession in 2020, thus exacerbating the adverse impacts of a no-deal Brexit.

#### Farmers need frictionless trade

Commenting on his letter, Mr Breitmeyer said farmers and other rural businesses relied heavily on frictionless trade and movement of goods across EU borders.

"A future relationship which imposes barriers to trade or excludes agri-food would put at risk farming businesses both here and in the EU and have a devastating impact across our wider rural economies," he added.

"I have written to farming colleagues across Europe encouraging them to put pressure on their own governments so that the UK and EU can come to a sensible withdrawal deal. It must be in everyone's best interest to guarantee free trade post Brexit, so that all involved in the agri-food supply chain can continue to benefit."

#### Beef sector fears

Meanwhile, the think tank The UK in a Changing Europe released a report on Monday (3 September) which concluded that the impact of a no-deal Brexit on UK agriculture would vary, depending on the sector.

For the beef sector, high tariffs could lead to a "total collapse in trade between the UK and the EU" since the UK is a large net importer of beef from the EU, it says.

The sheep sector, which exports large quantities to the EU, would be negatively affected as the application of "most favoured nation" tariffs would diminish its competitiveness, leading to a reduction of the volume exported, the report states.

Brexit secretary Dominic Raab told the Lords EU committee last week he was "confident that a deal is within our sights".

But the EU's chief Brexit negotiator, Michel Barnier, said he was "strongly" opposed to parts of the UK's government's Chequers plan, which analysts say has increased the likelihood of a no-deal Brexit.

#### WTO option would not be a disaster, say Brexit campaigners

The cross-party Get Britain Out grassroots campaign group has rejected claims that a no-deal Brexit would be disastrous for British agriculture.

Its director Jayne Adye told Farmers Weekly that reverting to World Trade Organisation (WTO) rules would give the UK agricultural industry opportunities to agree exciting new global trade deals.

Ms Adye said: "Under a WTO Brexit, the United Kingdom can tap into the growing demand worldwide for British agricultural goods. Countries with growing middle classes, such as India and China, are experiencing a surge in demand for high-quality British products.

"Leaving under WTO terms will allow us to strike free trade deals, granting British farmers with countless new opportunities to export their farming goods around the world."

A WTO Brexit would guarantee that British farmers would no longer be constrained by the EU's Common Agricultural Policy, she said.

Instead of relying on handouts from the EU, the government would be able to reward farmers for producing high-quality food and maintaining higher environmental standards.

"We should be very proud of our high standards of animal welfare and environmental protection, and, with new opportunities, agriculture and rural businesses can play a crucial role in reshaping future farming policy to ensure these standards do not fall," Ms Adye added.

"The UK has serious leverage as we produce some of the best food in the world. Once we get Britain out of the EU, we can be global leaders in agricultural standards."

The prospect of new, domestic supply chains taking shape was one which should enthuse British farming, she said.

"Instead of importing subsidised produce from Europe, food manufacturers will turn to the UK's domestic farming sector, and this will lead to a renewed appreciation of our hardworking farmers and British produce."

Former Defra secretary Owen Paterson, a Brexit supporter, added: "Under a clean Brexit with WTO rules (often referred to erroneously as 'no deal'), farmers can be free to embrace the latest technology enabling fertile areas to continue competing with the rest of the world.

"More marginal areas can be supported with continued government funding in a way that is fully WTO-compliant."

JOURNAL : Farmers Weekly

A 72ha sheep and cattle farm in Cumbria is seeking a tenant for a 15-year agreement.

The National Trust's Penny Hill Farm in Eskdale is a traditional Lakeland fell farm with a five-bedroom farmhouse, two-bedroom holiday cottage and a range of modern and traditional farm buildings.

A landlord's flock of 310 Herdwick sheep and a cattle enterprise are included, and must be kept on the farm under the tenancy's conditions, which also includes fell grazing rights.

See also: Expert tips on how to apply for a farm tenancy

Penny Hill is being offered on a farm business tenancy for 15 years and six months, starting on 25 March 2019.

The farm is part of three Higher Level Stewardship agreements, expiring between 2020 and 2023, and these schemes will be transferred to the new tenant.

The children's author Beatrix Potter owned the farm in the 1930s and bequeathed it to the trust in 1944. The property has recently become part of the English Lake District World Heritage Site.

A National Trust spokesman said: "Since our current tenants gave notice in March 2018, we've been working really hard to look at how farming in balance with nature will continue here and how we will work closely with our new tenants to make a successful partnership for everyone.

"This is a great opportunity for a proactive tenant to work in partnership to develop a successful business based on high-quality livestock, habitat and landscape management."

Knowledge and experience

The trust's ideal tenant would understand how to run a fell farming business; have strong shepherding and cattle handling knowledge and experience; be willing to actively engage with agri-environment schemes and work in a partnership; and have experience of adding value to a farm business through diversification.



## En route to World Routes

The viewing day, which is mandatory, is Friday 7 September 2018 between 10am and 4pm. Viewing is by appointment only.

Application and tender forms will be available on request after the viewing day.

The closing date for tenders is Friday 28 September 2018 at 12pm.

For more information or to confirm a time to attend the viewing day call 01539 435 599 or email [northwestlettings@nationaltrust.org.uk](mailto:northwestlettings@nationaltrust.org.uk)

## JOURNAL : Farmers Weekly

Farm leaders have accused the government of taking little action since promising to help farmers suffering from the impact of the summer drought.

A month has passed since environment secretary Michael Gove promised to do “whatever it takes” to help farmers suffering from lack of rain.

Mr Gove made the pledge following a “drought summit” with representatives from across the agricultural sector on 1 August in London.

See also: Advice for managing forage supplies in a drought

NFU president Minette Batters said: “We are yet to see meaningful assistance to farmers who have to deal with the long-term impact of the extreme weather.”

In a letter to Mr Gove last month, Ms Batters said governments in Scotland, Wales and across Europe were showing understanding of the severity of the agricultural drought.

Those governments had put in place measures to help farm businesses, she said – but the situation was very different for farmers in England.

The NFU has urged Mr Gove to be flexible on CAP greening rules and agri-environment schemes, which mean many farmers can’t graze or cut grass from certain areas of land.

## 'Huge uncertainty'

Ms Batters said the government could apply to the EU Commission for a derogation to allow farmers to graze or cut grass from this land temporarily.

She said: “Without these derogations, farmers face huge uncertainty over whether feed stocks will last the forthcoming winter and what increasing costs they will be facing if they don’t.”

The NFU has also called for additional flexibility on water abstraction licensing, support for additional forage and bedding costs, and improved cashflow.

Ms Batters said this meant speeding up payments that are well overdue for the hundreds of farmers who have been expecting this much-needed cash injection.

“The secretary of state said he would do ‘whatever it takes in order to make sure farmers can continue to run successful businesses’ after the summit last month.

“This is government’s opportunity to show meaningful support for the British farms that have been left so exposed to the extreme weather.

“We know the secretary of state values British food production, but – despite the recent turn in the weather – we still need to see action. A bit of rain does not wash the problems away.”

It comes as results from a survey of over 600 NFU members on the impact of the drought show 71% have suffered a negative impact from the weather.

Some 78% of farmers using forage expect a shortfall in feed reserves this winter. And of the farmers growing spring crops, 90% say they are growing poorer than expected.

Relaxation sought

Defra says it is negotiating with the European Commission on the issue – and seeking a “far more useful relaxation of EU laws for our farmers than other member states have sought”.

A Defra spokesman said: “Allowing catch or cover crop grazing would, we expect, have limited benefit for our farmers, given the limited crop types that can be grown under current rules in the areas concerned.

“We expect further news next week on our negotiations with the European Commission to secure a much more beneficial flexibility to increase the availability of fodder resources for livestock.”

JOURNAL : Farmers Weekly

Root crop and spud kit specialist Dewulf has launched a stand-alone Field Loader that is able to process up to 150t/hour.

Tipping trailers can unload directly into the transfer machine's 2.4m-wide bunker floor, before crop is sent through a 10-roller cleaning unit.

The openings between rollers are electrically adjustable to reduce the amount of soil and waste in the load and there is space for two people at the inspection table.

See also: Four-row planter and rotavator combo speeds up potato planting

Material is then directed onto a four-piece discharge elevator, which pivots through 120deg and will reach up to 6,187mm, or 5,630mm when at maximum height, so should be able to reach deep into a waiting truck.

Active side plates and soft flights should help prevent product damage, says Dewulf, and if the discharge elevator is placed at too steep an angle, the entire machine automatically switches off to prevent the product falling from height.

There's also a 140deg pivot on the waste conveyor, which discharges sieved-out soil and other material to a central location alongside the machine.

The Field Loader also has the option of a built-in diesel generator that can be detached and used for other purposes, though for most tasks it can be connected to mains power.

JOURNAL : Farmers Weekly

Store cattle prices have largely recovered from the mid-summer blip, although mart averages are being held back by second-quality entries, showing the effects of a challenging summer.

A deadweight beef price crash of 17p/kg in six weeks led to caution among finishers, although marts are now suggesting that much of the drop has been recovered in August.

Sedgemoor

This is certainly the case at Sedgemoor, where Saturday's trade (1 September) was described by Greenslade Taylor Hunt's Robert Venner as “more like a first of April trade”.

## En route to World Routes

A yarding of 763 cattle in Sedgemoor's 400kg+ ring saw another stronger sale, driven by a 20p/kg lift in the prime beef ring over the last three weeks, which has seen strong cattle back up to 230p/kg and run-of-the-mill heifers at 180p/kg.

See also: Prime beef staging recovery after 15p/kg drop

Heifers sold to £1,205 and averaged £775, while steers sold to £1,330 and averaged £827, compared to the previous week, when heifers topped at £1,330 to average £748 and steers sold to £1,300 and averaged £925.

All summer, Mr Venner has been advising farmers to supplement grazing, with the message now being to sell cattle soon, rather than holding on to them for the sake of it.

"Dewy September grass could see cattle go backwards," warned Mr Venner, adding that, while the western counties have greened up, grass is low in dry matter values, effectively being "green water".

He said there were some really good stores about, but that a significant number were, understandably, small for their age.

## Cumbria

Prices for strong, short-keep cattle are "improving all the time", but Mark Richardson, livestock manager and auctioneer for Harrison and Hetherington at Kirkby Stephen, said the stronger trade of late is only for the right cattle.

Along with his colleagues at Carlisle, they have observed a "two-tier trade" open up, with longer-keep cattle requiring more forage well adrift of the better end.

"Forage stocks are a little tighter and some finishers have the option of selling their grain for more money this year," said Mr Richardson.

"Looking forward, people are predicting cattle are going to be short, so that should send the price the right way."

Forward stores sold to £1,420 twice at Carlisle last week (29 August), with Limousins hitting the top money of £1,370 (x2), £1,290 (x2) and £1,280. British Blues hit £1,190, with several around £1,045-£1,1140 and Angus sold to £1,030-£1,100.

Mr Richardson added that the ever-increasing scrutiny of cattle health and vaccination programmes was evident at sales, particularly from Scottish buyers, owing to BVD rules.

"Without BVD accreditation you cut Scottish buyers out," he explained. "This is because some of our better store heifers go for breeding, adding hundreds to the price tag.

"Our catalogues have more and more vendors registering with BVDFree England or marketing their stock as being tested and vaccinated."

## JOURNAL : Farmers Weekly

Building a successful farm business doesn't happen overnight – it takes great ideas, passion, determination and years of hard work to see it through.

It is a critical time for the farming industry, which faces many new challenges and opportunities over the coming months with the looming fallout from Brexit.

With the phased withdrawal of direct support, farmers will have to increase innovation and restructure their businesses to be profitable.

See also: Meet the 2018 Farmers Weekly Awards finalists

## En route to World Routes

Ahead of the 2018 Farmers Weekly Awards, we have returned to previous winners of the overall accolade and asked them to share the secrets of their success.

Each farmer was asked four questions on the keys to running a successful farm business (see below). The results have revealed some common traits, but also some surprises.

## The questions

What are your top three business tips for a successful farm business?

What's the best business decision you have ever made?

What will you never do again in business?

What would be your key piece of advice to a new entrant?

Robert Neill, Upper Nisbet Farm, Jedburgh, Roxburghshire

1. Manage your business through data recording – if you don't monitor it, you cannot measure it. Set yourself targets and benchmark yourself against yourself year on year. Don't be frightened to take risks and borrow money.
2. The best decision for my beast enterprise was buying a set of weigh bars. Only 20% of beef farmers in Scotland have got weigh bars. But I can now weigh cattle, monitor the data and look at what it means.
3. Always run your business with your head, not your heart. A prime example in a cattle or beef enterprise would be: go to the end of the supply chain and work backwards. Look what customers you're going to supply, what they want, condition, grade of stock. Then decide who you're going to supply and go from there.
4. Seek advice from peers and industry experts and look for a mentor who is well respected in your field, especially if you are a first generation farmer.

Poul Hovesen, Salle Farms Company, Holkham Estate, Norfolk

1. Understand your farm potential, climate, crops and markets. Follow a long-term strategy. Develop a technically capable and skilled workforce that understands your objectives.
2. Developing and following a long-term strategy using the best science and technology available.
3. Short term actions, follower of fashion.
4. Ask yourself if you are capable of being in the top 5%? Build business resilience, giving thought to long-term planning and attention to detail.

Peter and Di Wastenage, Wastenage Farms, Budleigh Salterton, Devon

1. Go with your gut instinct and never be afraid to do something different. Invest as much as possible in appreciating assets and as little as possible in depreciating assets. Don't be afraid to make mistakes, just learn from them and move on.
2. Employing others to do the important bits of the business you don't enjoy, thus ensuring these jobs not only get done, but get done well!
3. We now try to take the opportunities as they present themselves, rather than wait for the right time.
4. Fast track your career by learning from others in the Industry. The openness of the agricultural industry and the opportunity to share knowledge i.e. within discussion groups and through other farming businesses, is second to none.

## En route to World Routes

Guy Poskitt, Kellington, Goole, East Yorkshire

1. Embrace technology, understand your customer and build a team that embrace and understand the business – give them their identity and ownership of their responsibility
2. Working with retailers. They are the biggest customers of UK horticulture and it is important to work with them, not against them.
3. Have a joint venture / partnership with other businesses.
4. Understand the market. Have a clear strategy both long and short term.

Lord Robert Newborough, Rhug Estate, Corwen, Denbighshire

1. First, believe in what you do – that brings the passion on. Think what the customer really wants and not so much what you want to do yourself. Ask yourself what is your niche selling point, where your market is going and how you are going to supply these markets?
2. Going organic. By being in a niche, you have something special to sell and to take to your marketplace. I am one of a few, rather than one of many. I also entered a market at a time when organics were in their infancy. It's something I believe in. I felt I could go out and sell with confidence.
3. Previously when we have come up with a good idea we have delayed and found it's too late and someone else has done in. Now we don't hang around and implement fresh ideas.
4. If you want to do something, get sound advice. But don't ask everyone as your mind can get muddled and you start to doubt yourself.

Nick Padwick, farms and estate director, Peterborough

1. Understand the businesses finances, year-on-year benchmarking enables informed decision-making. Follow through your ideas; if you don't try you'll never know. Don't underestimate the importance of having a good team (support mechanisms) around you.
2. While we were working in Leicestershire for Farmcare, my wife Michelle and I developed a "farm to fork" initiative to show children (and teachers) how food is grown and where it comes from. The program ran for nearly 10 years and affected the lives of nearly 100,000 children.
3. Not listen or stand back and reflect on business strategies.
4. Explore mentorships as throughout your career you will need support and guidance.

Adrian Ivory, Strathisla Farms, Moolies, Meigle, Perthshire

1. Produce what your customer wants not what you like to look at. Challenge yourself and take yourself out of your comfort zone. Don't go all in on a new idea, as if it fails you have left a big hole.
2. In cattle terms, building the cattle handling system. In cereal terms, going down the precision farming route in terms of yield mapping measuring organic matter and purchasing a fertiliser spreader, which applies what you need and where rather than a general spread.
3. I used to budget for the year ahead which could result in making some costly, silly decisions.
4. If you are thinking of buying land, ask yourself is it really value for money? Can you make a return on what you have bought? £10,000 per acre with a repayment of 4% is a £400 an acre profit before you break even. Everything that goes up, normally comes down and land will do the same.

## En route to World Routes

John Geldard, Low Foulshaw Farm, Levens, Kendal, Cumbria

1. Make sure whatever you are producing is closely aligned to consumer demand. Don't fight against fashion. If the fashion is to eat meat with a bit of marbling, don't produce lean meat. Big isn't always best. Finally, make sure you have the right margin.
2. My biggest, best and bravest decision was to buy Low Foulshaw Farm in 1988, having been a National Trust tenant for the previous 13 years
3. Grow potatoes. In 1988, we thought this was a way to get further cashflow into the farm. But we gained knowledge, rather than profit. Leave these things to the experts.
4. Do your own research and back your own judgment. If you have got an idea, completed the research and the results are bad, don't do it. But if the research is good and your gut reaction is right, back your judgement to be right.

Robert Law, Thrift Farm, Royston, Hertfordshire

1. Think outside the box. Work with nature, not against it. Utilise every asset you have got and explore every opportunity and every potential market.
2. I'm a first generation farmer, so in my case the best business decision I made was to embark on a career in farming.
3. I will no longer invest in something I don't have control over, or don't know a lot about. Stick to what you know best.
4. Don't fall out with anybody. You never know when you might need them.

Andy Guy, farm consultant

1. Do really thorough research and planning. Keep an open mind about every idea. Have a contingency plan (and build it into your business plan).
2. I am confident that time invested in training and gaining experience in a strategic way was an important factor in my success.
3. In the early days, I was probably not as safety conscious as I would be now. There were one or two near misses which come to mind and might have ended in a more serious way than they did.
4. Always seek the advice of those with more experience than yourself. Consider their wise words and how you can apply their thinking in your situation but, if they tell you that there is no route into the industry for you, as some said to me, set out to prove them wrong. With ingenuity, enthusiasm, hard work and determination, there will always be opportunities.

JOURNAL : Farmers Weekly

Primary and secondary cultivations are virtually complete. With the early start to harvest I set myself a target to get as much done before the end of August as possible.

The large proportion of spring cropping combined with late drilling delivered fantastic blackgrass control, so I decided to get the work done early so the ground can be left undisturbed for a minimum of six weeks before drilling.

Hopefully this will get some seed that has been buried from previous years to germinate.

See also: OSR growers advised not to rush into drilling

## En route to World Routes

Oilseed rape drilling was delayed until the beginning of September due to the dry conditions and the hope that later drilling will give some help to flea beetle control like it has in the past.

## Backlash

A couple of weeks ago Hertfordshire Police posted on social media about some checks they carried out on farm machinery on roads.

The results weren't great – two tractors had to be escorted off the road to have their issues addressed immediately, and most of the others had a fault of some kind.

Unfortunately they didn't receive a good response from farmers, with many questioning why they were doing it, and claiming it was a waste of police resources.

Some even went as far as to say that because the police haven't caught farm thieves or hare coursers then they shouldn't stop tractors on the road.

I make no apologies for saying that if you questioned, or claimed the police were wrong to check farm machinery for roadworthiness, then it is you who is wrong.

With farming needing to make a vast improvement to its health and safety record, increasingly busy roads, and the fact that it is the law to have functioning lights, brakes and a visible number plate, it is about time the industry sorted itself out.

If everything is up to scratch and road legal, there is nothing to worry about – if it isn't, don't take it on the road. The cost to make it roadworthy isn't an excuse – even if you only go a few miles, it could be deadly.

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

Over the past couple of weeks there has been a lot of discussion on what the implications for the pig industry would be should we reach a "no deal" Brexit scenario.

By default, both imports and exports would be subject to tariffs, meaning trade could be reduced somewhat, which could cause problems as we are only 50% self-sufficient in pigmeat.

The government could choose to reduce tariffs unilaterally, but as this cannot be done for specific countries (other than under free-trade agreements), we could be opening the gates to everything.

See also: How a pig farmer has lowered production costs by 3.8p/kg

Looking at it from a positive stance, a "no deal" could lead to some good opportunities to grow our own market. However, farmers need more certainty over the future to invest and expand.

In terms of exports, the EU is still the UK's biggest market with 157,000 tonnes of pork, worth £208m, being exported in 2017. This is clearly something we do not want to lose, never mind all of the extra requirements around export certification.

By the same merit, the EU would suffer as it has been predicted that pigmeat exports to the UK could reduce by almost 50%, taking 2.3bn (£2bn) off the EU pigmeat market. For Denmark, which exports 80% of its bacon to the UK, establishing an agreement is pretty important.

Back on farm, we are now almost fully covered for our raw material feed requirements across both the pigs and the poultry, but it's certainly making me wince seeing the delivered prices continue to rise.

## En route to World Routes

Accounting for all costs to the business, the last quarter saw a jump of £18/t (as fed) on the previous quarter, with a smaller increase for the current period September to November.

We are now paying £30/t more for our feed (as fed) compared with the same period in 2017. We buy approximately 56t/week so this equates to an extra cost of £87,360 per year on the pig business, or £9 a pig sold and approximately 10-11p/kg deadweight.

As well as this added cost, the pig market price is down 15p/kg on this time last year, so many producers who are not on cost-of-production related contracts such as ourselves are likely to be significantly worse off.

Let's hope there is some positive clarity over Brexit soon!

Sophie Hope is a Farmer Focus writer from near Cheltenham. Read her biography

JOURNAL : Farmers Weekly

I can't work out if winter is finished or yet to arrive. We have beautiful warm days with crop development and pasture growth racing away.

I have to keep reminding myself that we haven't even started lambing yet. We have had virtually no rain since we returned from the UK in mid-June.

On the occasion that winter doesn't seem to arrive on time, it normally doesn't end well, either wet and cold in September or with a spring drought.

See also: Read more from our Farmer Focus writers

Either way we are making the most of this and pushing on with our spring work. The last of the wheat was drilled in mid-July and spring barley is now all planted, just leaving two crops of peas, a seed line of hybrid oilseed rape, fodder beet and tatties.

Top price

A combination of a poor 2018 harvest in Canterbury, a strong dairy price and the devastating drought in Australia has given us good selling opportunities.

I have sold the majority of the last harvest of both wheat and barley in the last couple of weeks at \$425/t (£220) "on farm". It's a good result financially that will help to fill in the pothole left by last year's drought-affected yields.

With a benign winter and plentiful feed, our store lambs are growing well. Of the 10,300 we will finish this year, approximately 3,000 have already gone for export processing, with the remainder gone by the end of October when we close the grass seed crops.

Our lamb schedule has hit just over \$8/kg (£4.20), which is a once in a decade pricing level for us.

The availability of spring crop options has been very good, giving us flexibility in our rotation.

All in all things are ticking along well here, but I don't have a lot of confidence in the durability of the global economy and we are yet to have a winter, so I am cracking on to lock in the good pricing that is currently on offer.

David Clark runs a 463ha fully irrigated mixed farm with his wife Jayne at Valetta, on the Canterbury Plains of New Zealand's south island. He grows 400ha of cereals, pulses, forage and vegetable seed crops, runs 1,000 Romney breeding ewes and finishes 8,000 lambs annually.

JOURNAL : Farmers Weekly



## En route to World Routes

It was a harvest of firsts. It was the first time we have cut oilseed rape at 6% moisture and cereals at 10%, the first time we have cut wheat with Hagbergs of nearly 400, the first time I have grown a crop in two and a half months (spring oats) and the first time we have finished so early in my farming time.

Some crops were surprisingly good, others unsurprisingly poor, but harvesting with a backdrop of prices comfortably ahead of budget made things easier.

A lot more straw has been baled locally, which you would hope will help those with livestock, but this endeavour has been dogged by many fires, some bad luck but many malicious.

See also: Kent grower sees top rapeseed yields without using insecticides

We've also used our new Dale Eco drill for the first time to plant oilseed rape. Some we are companion cropping with beans and some with clovers, some is Clearfield (Phoenix), some Turnip Yellow Virus resistant (Architect) and some entirely conventional and cheaper (Campus).

### Exploring conservation agriculture

It will be interesting to see if the Architect has any advantage in the absence of insecticides; its predecessor Amalie never did for us.

We will have another 30 varieties growing here as well, in the form of the local NIAB trials.

We've just planted our first trial area in a new five-year Conservation Agriculture (CA) and Sustainable Farming project run Europe-wide by Syngenta, in conjunction here with NIAB and the Game and Wildlife Conservation Trust, who already have a site up and running at Loddington.

It consists of three 0.5ha strips of OSR established after ploughing, shallow cultivations and direct drilling.

We will also have similar areas going into wheat, spring barley and spring beans with preceding cover crops in the min-till and direct drilled plots.

The aim, as I understand it, is to develop a more robust view of the opportunities of CA to increase farm profitability, biodiversity and soil health. Or maybe we'll find we're doing it all wrong.

Andy Barr farms 700ha in a family partnership in Kent. See his biography.

### JOURNAL : Farmers Weekly

I am all written out for today! I finally managed to set some time aside this morning to write my groom's speech ready for Saturday's wedding.

All of a sudden it makes Farmer Focus writing look easy!

With the big day looming, and it being held away from the farm, all focus in the past couple of weeks has been on making sure that the farm will survive without us.

You suddenly start thinking about all the possible scenarios that could go wrong – and then we have to keep reminding ourselves that between us we are only actually away for two nights, and we do have mobile phones.

It has been a bit of a niggly month really, with pressures created as costs continue to rise. This hasn't been helped by ongoing staff issues.

I have to say I am learning a lot about staff management and have now really started to try to take a proactive approach. We have spent money on accommodation, and also look to have a team meeting every Wednesday in an attempt to aid communication and unify the team.

## En route to World Routes

See also: Farm management: How to become a better boss

I hope it works, as staff do play a key role in dairy farming of any sort of scale these days. It really did take the biscuit when I returned from my stag do to be met on the yard by our Polish milker who was in a worse state than I was!

The maize is now romping along and it is looking like an early harvest. It might possibly even be ready by late September, which will be a real boost.

The cows are milking very well at the moment as we have calved quite a few this month with milk currently at 32 litres a cow.

However, I think we will all be a little bit more relaxed once fourth cut is taken off and the maize is safely in the clamp.

By the time you read this I will be a married man. Fingers crossed that she turns up and all the hard work has paid off!

Henry Wilson is a Farmer Focus writer from Shropshire. Read his biography.

JOURNAL : Farmers Weekly

Good riddance to a terrible summer.

August is supposed to be the hottest, driest month of the year for us at temperatures of around 40C for days on end and no rain.

August 2017 to August 2018 was one of the driest years on record. We got a third of our average rainfall and scorching temperatures.

We've been battening down the hatches to survive. We early weaned all of our spring calves – some as young as 110 days.

The neighbours' corn crops were all complete failures so we harvested it as 7,000t of silage for the cows. Never before have we fed silage – we feed hay – but this year is different.

See also: Worst drought in living memory decimates Australian farms

The average yield was 0.86t/ha. Our hay prices have more than doubled so we were happy to have it.

Then it rained. We have had 11.5cm of moisture and the average temperature has been about 4C below normal.

Grass has come to life and is greener than it has been in a year – such strange weather but welcome for sure!

The drought and low commodity prices we are experiencing have started to transform the land. We have marginal clay ground and unpredictable weather so arable has never been this area's strong point.

Current conditions have made it impossible for most to continue. One neighbour told me that he had total costs of £385/ha in his soybean fields this year.

Currently, US soy is trading around £78/tonne below the world market because of the Chinese tariffs – next year my neighbour will grow alfalfa.

Another farmer is planting gamagrass (the queen of grasses) instead of arable, and ground that had the maize and beans we just silaged is going into grass.

I'm sure the big companies don't really care about what happens in our little part of the world – it doesn't break my heart that we are cutting them out of our production models either.

It's easier to be profitable without a \$300,000 combine sitting around 11 months of the year depreciating.

Rain has made me wonder if maybe we all panicked and things will change. Will Trump be out of office? Will the Chinese go hungry?

Daniel Mushrush is a Farmer Focus writer from Kansas. Read his biography.

JOURNAL : Farmers Weekly

Spikes in crop prices caused by this summer's drought could leave farmers at risk of losing thousands if stacks are under-insured.

Low yields have seen the prices of wheat, hay, straw and cereals double in some regions of the UK.

See also: How to review your arable insurance

However, many insurance policies will only cover stacks up to the value of £30,000, according to insurance broker Lycetts, which has urged producers to check they have the correct level of cover.

Lycetts says that splitting larger stacks and keeping them 20m apart was one measure farmers could take to spread risk.

What is under-insurance?

Under-insurance is defined as inadequate insurance coverage that leads to losses to the policyholder as claims exceed the maximum amount stipulated in original policy documents.

The losses that emerge from a claim far outweigh the money saved from paying lower premiums for a smaller sum insured.

Example: A stack is insured for £50,000 but due to crop price rises has a real-time value of £100,000. The stack catches and the farmer makes a claim for £50,000.

Therefore, the original policy was for just 50% of the actual value. When the insurance provider chooses to 'apply average' the payout will be 50% of the sum insured – £25,000.

"This summer has been a challenging one. The adverse weather resulted in low crop yields, which has inevitably pushed up prices and affected market values, said Lycetts director, William Nicholl.

"With so much to deal with, insurance may be the last thing on farmers' minds but it is even more imperative that farmers are adequately covered, given the trying times.

"Some farmers may not be aware that the increase in wheat values, for example, means that their grain store is holding a higher value of wheat than in previous years, which would have an impact on the policy limit.

"And if a fire ripped through under-insured haystacks farmers could face losing thousands of pounds on a claim – with an even keener blow being felt if the farmer had to buy in or supplement the crop in question, due to poor harvests."

Mr Nicholl added that he was particularly concerned about livestock farmers carrying large stacks of hay and straw for large headages of cattle, the value of which has boomed in recent months.

JOURNAL : Farmers Weekly

Arable farmers across England are reporting severe infestations of cabbage stem flea beetle on emerging oilseed rape crops.

## En route to World Routes

The recent hot weather has triggered an explosion in flea beetle numbers and there are widespread reports of early crop losses.

Arable and beef farmer Joe Stanley has never had problems with flea beetle attacking rape on his Leicestershire farm until this year.

See also: Tips on beating beetles in OSR

Mr Stanley, a Farmers Weekly columnist, said 95% of his emerging rape plants had “shot holes” caused by the flea beetle, which can wipe out vast swathes of OSR.

The ban on the use of neonicotinoid seed dressings has meant that he, like many other farmers, has had to resort to using pyrethroids in a bid to control the pests.

<https://twitter.com/JoeWStanley/status/1036193490873532416>

But Mr Stanley said this older, “dirtier” chemistry was far less effective and more harmful to wildlife, and resistance was building among the target pests.

“Farmers have had a targeted insecticide [neonicotinoids] taken out of their armoury and are having to resort to using a broad spectrum, foliar spray [pyrethroids],” he added.

“We are trying to run an efficient, productive farm business. But it’s like trying to farm with one arm tied behind your back.”

Twitter pics

Mr Stanley said it had cost him £250/ha to establish his oilseed rape crop. He does not want to spray pyrethroids because of the problems with increasing resistance, but feels he has no choice.

“Oilseed rape is the most profitable break crop. But if I lose my 52ha this year, it will certainly make me think twice about growing it again,” he added.

Farmers as far north as North Yorkshire and Lincolnshire have been posting pictures on Twitter of flea beetle damage to emerging OSR plants. Some have reported re-drilling fields.

<https://twitter.com/gaff1wiz/status/1036172364680257536>

Samuel Clarke, an independent crop consultant, farm manager and livestock farmer based in Oxfordshire, tweeted on Saturday (1 September): “Just starting to see flea beetle pressure rising, some crops getting hammered further south, forecast looks like flea beetle preferred weather next week.”

<https://twitter.com/sasagronomy/status/1036611255992287237>

AICC chairman and independent agronomist Sean Sparling told Farmers Weekly there was real concern in Lincolnshire about widespread damage caused to rape crops by flea beetle.

Mr Sparling said he walked fields of emerging rape crops around the Lincoln area last Wednesday (29 August) and there was minimal damage on the cotyledons. But by Friday (31 August) crops were “being hammered” by the pests and growers had resorted to spraying them with pyrethroids.

“We have significant flea beetle activity up here at the moment. There seems to be an awful lot of pressure this year,” Mr Sparling said.

“It’s very frustrating that no access to neonics seed treatments means farmers are spraying pyrethroids because they have no other choice.”

NFU: 'Mad house economics'

NFU deputy president Guy Smith said: "Over the last few years as we've lobbied for the use of neonics we've frequently been accused by the anti-pesticide lobby of exaggeration when it comes to flea beetle damage.

"Judging by the reports we are getting in from many members about damage to emerging rape crops, with growers already writing crops off, it looks like 2018 could turn into a bad year for flea beetle damage.

"This really brings home the importance of insecticides when it comes to growing healthy crops, but what it also reminds us that one key result of the EU/UK neonicotinoid ban is that it simply sucks in more protein imports from parts of the world such as North and South America where there is no political appetite to ban neonics. It's the economics of the mad-house."

JOURNAL : Farmers Weekly

Farmers and other industry representatives are being asked to give their views on the future of the Agriculture and Horticulture Development Board (AHDB).

The AHDB is a statutory levy board funded by farmers, growers and others in the supply chain.

Its purpose is to make agriculture and horticulture industries more competitive and sustainable through factual, evidence-based advice, information and activity.

See also: AHDB campaign draws millennials back to dairy

The AHDB collects around £60m a year in statutory levy from farmers and growers and currently uses that money for a range of purposes to support these sectors.

Defra says after the UK leaves the EU, there is an opportunity to ensure that the sectors that the AHDB covers – AHDB Horticulture, AHDB Beef and Lamb, AHDB Cereals and Oilseeds, AHDB Dairy and AHDB Pork – are as competitive as possible.

The review will look at the AHDB's purpose and priorities, its strengths and where improvements need to be made.

10-week consultation

This is a joint 10-week exercise covering England, Scotland, Wales and Northern Ireland. The request for views will close on 9 November.

Farm minister George Eustice said: "At a time when we are designing a new agriculture policy from first principles, now is also a good time to review the role and function of this agricultural and horticultural levy body.

This request for views is an opportunity for levy payers to have their say about the role and function of the various components of the AHDB in the future.

AHDB welcomes views

Jane King, chief executive of the AHDB, said: "We welcome this opportunity to gain feedback from farmers and growers, and to help the industry compete in a global marketplace as the country prepares to leave the EU.

"We'd encourage views to shape where we can have the biggest impact and drive value as an independent, evidence-based organisation, which carries out marketing at home and abroad, while sharing best practice and innovation with farmers, growers and the wider industry at this crucial time."

To submit your views please complete the online survey by 9 November. Defra will also be running a number of workshops in the coming weeks.

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## JOURNAL : Farmers Weekly

A keen eye for detail was the standout feature of this year's three very different contracting finalists, which ranged from a professional herd care service specialising in animal husbandry to big-fleet businesses offering more traditional ag contracting work.

While Mornios Contract Herdcare works on a low-cost, high-profit model in providing relief herdspeople across the country, our other two finalists – Westover Farm Contractors and Sinclair Contracting – run farm services that involve large machinery fleets, specialist kit and high horsepower.

See also: Meet the 2018 Farmers Weekly Awards finalists

The 2018 Farmers Weekly Contractor of the Year finalists

Robert Chapman, Westover Farm Contractors, Westover Farm, Calbourne, Isle of Wight

Carl and Natalie Martins, Mornios Contract Herdcare, Melton Mowbray, Leicestershire

Magnus Sinclair, Sinclair Contractors, Kinknockie Farm, Udney, Ellon, Aberdeenshire

The judges

Russell Price, last year's winner

Oliver Mark, Farmers Weekly machinery editor

Jill Hewitt, independent judge

Robert Chapman

Westover Farm Contractors, Westover Farm, Calbourne, Isle of Wight

In just eight years, Robert Chapman has built an agricultural contracting empire that covers huge swathes of the Isle of Wight.

The bare bones of his business were assembled when he took on a 400ha foraging round from a local contractor and – through years of hard work, challenges and shrewd investments – it has blossomed into a 2,800ha diverse contracting operation.

His success stems from delivering the sort of quality **job** he would expect on his own farm, which has been rewarded with long contracts and lots of returning customers.

At times, that means offering flexibility to those that have lumpy incomes to suit the cashflow needs of both businesses, which he organises during annual review meetings.

Farm facts

Offers a contracting service across the whole of the Isle of Wight

Main customer base is arable, dairy and AD plants

Services provided include combining, forage harvesting, spraying, baling, drilling and cultivations

## En route to World Routes

## Machinery

Robert's love for all things farm machinery means he takes a particularly keen interest in the business' growing fleet and he is determined to get the most of every new piece of kit that rolls into the yard.

He's grown from two to 12 tractors in eight years and most are kept for 5,000 hours or three years, with purchasing decisions often based on the experience of other farmers.

Rather than restricting his options to dealers based on the island, Robert has established a close relationship with Compass Tractors in Bridgwater, Somerset.

It provides most of the frontline machines and Robert is often tipped off about good deals that might mean tractors are shipped off from the business after just six months.

Comparatively, most implements come second-hand, leaving someone else to take the biggest hit on depreciation.

Westover's arsenal now includes kit to cover almost every arable and grassland operation on the island, but machines are also hired in where necessary to make sure jobs are completed promptly.

A full-time mechanic and purpose-built workshop also helps cut the reliance on dealers and mean problems can be sorted quickly with minimal disruption to customers.

## Staff

Robert's business is based around his family and staff are treated in just the same way.

Team members have their own responsibilities, kit and operations, but are multiskilled and can fill in wherever they are needed. It gives them a sense of responsibility and belonging, and means they can get to know customers and help build relationships that might benefit the business in the long term.

They also take great pride in the machinery, which is always looking at its best and reflects the company's professional approach to work.

Westover is in the unusual position of having a waiting list of potential staff, and a network of local farmers and workers means Robert can quickly bolster his ranks during busy periods.

Seasonal staff come from all over the world and the family farm house becomes their home for the summer, including home-cooked meals every evening and the use of a car on days off. Robert has also helped staff with other accommodation, purchasing vehicles and organising work abroad, based on the mantra that happy staff and their families benefit the business.

## Customer relationships

With up to 20 tractors buzzing around during silage season, Robert works hard to minimise disruption to the local community. He maps out one-way systems for the gang to reduce congestion and tries to keep out of towns and heavily trafficked areas where possible.

The company takes a stand at the local ploughing match – a major event in the island's farming calendar – which gives the team the chance to meet existing and new customers, as well as supporting agriculture in the area.

Robert is also keen to encourage the next generation to take an interest in agriculture. He invites visits from schools, scouts and Young Farmers groups, and takes an active role with the grain co-operative, which has a strong farming voice on the island.

## The judges liked

Keen eye for second-hand bargains keeps costs down

## En route to World Routes

Kit kept in great condition and well looked after by staff

Rapidly growing business that shows little sign of slowing down

Can-do attitude to work keeps customers happy

The judges say

“Robert’s fast-growing business is built on a can-do attitude to meet his customers’ needs. He takes a close interest in machinery purchases, which has helped him get the most from his investments.”

Carl and Natalie Martins

Mornios Contract Herdcare, Melton Mowbray, Leicestershire

There can be few greater responsibilities in farming than to be left with an unfamiliar herd of dairy cows while the manager or owner takes time off for holidays.

But for Carl and Natalie Martins, this is now a regular occurrence, and the husband-and-wife team have more than 130 customers from the top of Scotland to the tip of Cornwall, Jersey, Northern Ireland and everywhere in between.

In doing so, they have developed their skills to the point where they can slot into any dairy system, whether it be abreast parlours, rotaries or robots.

Their 36 years of herd management experience also means they’re employed by farms to train new staff in the different systems, as well as helping larger block-calving herds at peak times and providing relief herdcare for robotic units.

Farm facts

Dairy herdcare service provided across the UK

Can be employed for a week’s holiday cover or long-term leave

Offers a training service for farms employing new staff members

Low-cost system

The Mornios business is based on very low operational costs. Farms usually provide Carl and Natalie with accommodation and they do without a permanent office, instead managing their work on the road and from the different sites they work at.

Laptops, smartphones and cloud-based software allow them to access clients’ data from the boot of a car and helps them to seamlessly slot in once they arrive on the farm, embracing the roles and responsibilities of the regular herdsman.

The low-cost, high-profit system relies on a serious dose of hard work and a willingness to spend extended periods of time away from home, but costs are also kept in check by price checking, bulk buying, negotiating and avoiding carrying too much stock.

Invoicing is prompt – twice a month – and deposits are taken from customers prior to work commencing. Work is charged by the hour and self-employed contractors are called in at peak time to avoid carrying excess labour when it’s not needed.

Customer relationships

Mornios’ customer base is particularly diverse and all have different needs, from small, family-run herds to huge commercial enterprises.



## En route to World Routes

The company's aim is to provide work priced to compete with a relief milking agency, yet offer extra services such as foot-trimming and artificial insemination. Given their qualifications and skills, Carl and Natalie are also able to spot sick, lame or bulling cows, which are often missed by relief staff.

It's unusual in that the partners in the business actually do the work on farms and know their clients well, which helps develop particularly strong relationship.

They take the time to note important events for each of their customers – such as birthdays or school holidays – and can make sure they're on hand to fill gaps when herdspeople are to take time off.

Staff training is particularly high on the agenda. Knowledge of first aid, personal protective equipment and manual handling, as well as ATV and telehandler licenses, are a necessity, and a clause in the terms and conditions of each contract states that if any procedure breaches health and safety rules then it won't be performed.

### Farming champions

Carl and Natalie are keen to take on ambassadorial roles for farming. They document their work through social media, showing different milking methods, robotics and farming systems employed across the variety of farms they work on.

They undertake milking demonstrations at local shows and take time to explain the intricacies of dairy farming to interested visitors.

They also provide training on different aspects of dairy cow husbandry to farms and are looking to expand their service to colleges, universities and Young Farmers clubs. Carl is also an alumni mentor at Nottingham Trent University, where he shares his passion for UK agriculture.

### The judges liked

High standards of work have earned a huge amount of trust from customers

Offers training support to new employees on farms across the country

Heavily involved in mentoring young people

Willingness to learn more and develop skills wherever possible

### What the judges say

"Carl and Natalie Martins are comfortable working in any dairy system and set exceptionally high standards in the herdcare of cows, which has helped them secure work across the length and breadth of the UK."

### Magnus Sinclair

Sinclair Contractors, Kinknockie Farm, Udney, Ellon, Aberdeenshire

Constantly adding to a varied list of services has helped Magnus Sinclair's Aberdeen-based contracting business overcome the challenge of rising machinery costs and competition from one-man bands.

As well as starting one of the first AD plants in the area, he runs a waste haulage operation – a gang of eight wagons deal with the permits, stockpiling and spreading of 190,000t of liquid waste a year – plus Christmas tree harvesting and farm machinery sales alongside the mainstream agricultural contracting outfit.

This helps spread the risk, but also keeps his machinery and team of 27 full-time staff – and up to 40 part-time during peak periods – busy year-round.

### Farm facts

## En route to World Routes

Offers agricultural contracting, waste haulage and renewable energy services across northern Scotland

Main customer base is arable, dairy and AD plants

Work includes forage harvesting, mowing, baling, muck/slurry/digestate spreading

Recordkeeping

At the heart of his business is John Deere's MyJobs documentation system, which helps track the exact cost of each job completed, including fuel used, time, tonnage or bale count.

Employing such a system means every job can be costed accurately and information can be recorded quickly and easily in the office and sent to customers.

It also ensures staff members make notes about a job's key details, which speeds up the process, from assigning the work to sending out the invoice.

Coupled to JD Link, it allows Magnus to monitor different jobs on his iPad, including up-to-date yield maps, engine speeds and data from the manure-sensing system fitted to the tankers.

Machinery

Prior to 2004, Sinclair Contracting ran a mixed-brand fleet. However, the switch to a John Deere-only outfit has brought stacks of benefits, making life easier for operators that need only to be familiar with a single system, speeding up servicing and workshop jobs, simplifying spare parts storage and building a very close relationship with the local dealer.

The other big perk is staff only have to be trained once on the various Deere computer systems, which is a major time saver for Magnus. The local dealer provides training on the use of guidance, as well as Deere's other software programmes, including Harvest Lab, Manure Sensing and the MyJobs documentation system.

The close relationship with JD naturally delivers reliable back-up, but Magnus also gets involved in trialling new equipment prior to its global releases.

Unusually, the business runs its tractors to well beyond 15,000 hours before trading them in, despite only taking a one-year warranty. The secret to their longevity is monthly health checks and in-house servicing.

It also helps manage the rising capital costs of machinery that are affecting contractors across the country. By buying new, maintaining tractors well, keeping them for longer and putting more hours on them, their costs are reduced and the business can stay profitable.

Sharing knowledge

Magnus has built a reputation for providing a quality service and sets himself apart from others by offering specialised knowledge and technology to provide the best service for specific jobs.

He also attends local school presentations on machinery development for young children to demonstrate the changes in farm equipment and the new technology that is influencing modern farming methods. He has also been director of the Royal Northern Agricultural Society, where he helped organise shows introducing the general public to farming.

He hosts farm tours on a regular basis, where he takes Young Farmers' Clubs and agricultural discussion groups around the site to talk about farming and his AD plant.

The judges liked

Takes an interest in the contracting sector and open to new business opportunities to spread risk

## En route to World Routes

Keeps close eye on costs and excellent record management

Long machinery replacement policy and monthly servicing

Involved with the local YFC and invites schools to visit

What the judges say

"A diverse range of services is central to the success of Sinclair Contractors and Magnus' willingness to embrace new technology and explore new opportunities sets him above many of his rivals."

Sponsor's message

"All three finalists demonstrated a tremendous focus for delivering a first-class service to their customers, which has become central to the success of their flourishing contracting businesses."

Richard Miller, Fendt business support manager

JOURNAL : Farmers Weekly

First Milk is raising its milk price from 1 September by 0.5p/litre, taking its standard litre liquid price to 28.5p/litre (4% butterfat, 3.3% protein).

The increase takes the co-op's manufacturing standard litre (4.2% butterfat and 3.4% protein) to 29.47p/litre.

"We appreciate the additional costs that members are experiencing due to the adverse weather conditions," said Jim Baird, farmer director and vice chairman.

See also: Free range poultry meat growth offers diversification opportunity

"Whilst there continues to be conflicting messages on the overall market direction, we remain focused on growing our business and passing the benefits of this back to members," added Mr Baird.

The market is very difficult to read – UK production is growing slowly but on the back of much winter feed already being fed. It remains to be seen whether the rise can be sustained at current higher feed prices and into the winter.

The next price announcement will be from Muller by the end of tomorrow (31 August), giving one month's notice of its October price.

Dairy market analysis from Peter Meehan, INTL FCStone

Volatility remained high in global dairy markets over the past week.

While European spot skim milk powder (SMP) and butter prices edged higher again last week, futures price activity was more mixed on favourable weather across much of Europe, easing concerns over milk supplies.

On the spot market, European SMP gained a further 4% last week, climbing to £1,457/t. European spot butter prices saw more moderate gains, increasing by 0.5% to £4,990/t.

Futures markets have been more mixed, with EEX butter futures' September to March contracts down sharply, falling by 5.6%. SMP futures meanwhile saw prices for October to December move down by 1% and January-March 2019 up 0.9%.

Despite the modest milk production numbers for July coming out of the Netherlands (-1.2%) and the US (+0.4%) over the past week and very strong export numbers out of New Zealand for July, futures prices struggled to find support.

Last week's GDT auction also did little to support market prices as it saw its fifth move lower in six events and 10th move lower in the last 13, events with the overall index dropping by 3.6%. Fats, in the form of butter and anhydrous milk fat, drove the decline.

#### JOURNAL : Farmers Weekly

The 3m Terradisc must have wondered what on earth was going on. After many years in the undergrowth, with only rabbits, mice and the odd confused Japanese infantryman for company, it found itself being hauled out into the light.

When it first arrived here in the 1980s, it was the star of the farmyard. I seem to remember straw burning had just finished, and it was hailed as the wonder-tool of the day for incorporating thick mats of straw.

"The secret is speed – more speed" cried the salesman. This clashed somewhat with Dad's favourite saying: "More haste, less speed."

See also: Read more from Charlie Flindt

Anyway, over the years, it fell into disuse. Some people still swear by them, and the design is now available on a dozen different marques, but we found a simple set of mounted 3m discs is better preparation for today's drills.

Out from the saplings it came, rear roller spinning freely as if it had been greased yesterday, and with enough metalwork to cover a good few acres before we'd have to find new wings or feet.

As it happened, we've got a healthy pile of spares. They've been sitting in a heap waiting to go back to the dealer; some bright spark had hard-faced the underside, which is a fat lot of good. Unfortunately, I've forgotten which dealer I got them from.

#### Recreational cultivation

The little Lemken must have thought Christmas had come as we set off to White Hill to hit the wheat stubbles. But after a turn or two, it got confusing again.

Initially, the job had been perfect – nice and smooth and regular. But I kept jumping out and dropping the rear levelling discs lower and lower, and only once I'd ended up with nice loose ground interspersed with quite deep trenches did I feel satisfied.

So what has caused this outbreak of deliberately poor soil preparation? And, bearing in mind that White Hill is pencilled in for spring barley, why am I suddenly so keen on what might be described as "recreational cultivation"?

After all, my soil guru at university was the legendary Professor Alan Reece. "Tractors are brilliant things," he would explain, bouncing round the lecture room in a dull redbrick block in Newcastle upon Tyne. "But the worst thing you can do with one is drive it across a field."

(I once accidentally handed in some work to the mad Prof with a betting slip left between the pages. It came back with a note scribbled on it: "I've checked – you didn't win. Otherwise I'd have cashed it.")

The depressing truth is that all that diesel, time and wrongly hard-faced metal is being used up on a completely non-agricultural mission.

#### My last resort

The hare coursing season has started, and among the half dozen or so cars that paused to watch my masterclass in deliberately incompetent seed-bed preparation was a Transit, convincingly decked out with orange beacon and tipper bed. Yes, it was the "rural criminals", checking out one of their favourite coursing sites.

And there is nothing that stops these "rural criminals" (and was there ever a more lame euphemism for these people? Greengrass from Heartbeat they ain't) exercising their self-declared right to drive all over our fields. Locks? Smashed. Chains? Cut. Gates? Nicked. Old farm implements? Ditto.

So, it's last resort time: the mission is to leave the ground too rough for the inevitable midnight Subaru and its long-legged canine contents. Will it work? I'll know within a couple of weekends.

I might win that battle, but the war against "rural criminals" is being lost – and we (unlike the Japanese infantryman) all know it.

JOURNAL : Farmers Weekly

Landowners fear proposals to close and cut the opening hours of recycling centres in Buckinghamshire may lead to an increase in fly-tipping on farms in the Thames Valley.

Buckinghamshire County Council has launched a public consultation, which includes the potential to permanently close at least one of its 10 sites in the county, with the preferred option at Bledlow, in a bid to cut costs.

The council is also considering cutting the opening hours at other centres and proposing new charges for handling certain items.

See also: Revealed – the burden of fly-tipping on farms

More than 650 fly-tippers have been prosecuted in Buckinghamshire in the last 15 years – and the council has one of the highest prosecution rates for waste crime in England.

But the CLA believes much of the good work could be undone if the authority gives the green light to reduce its recycling centre services.

CLA regional director Robin Edwards said: "More than 11,000 fly-tipping cases – six a day, on average – have blighted the countryside in the last five years alone, costing taxpayers £500,000 a year in clean-up costs, and it would be a huge shame if these numbers were to grow even bigger as a result of cuts to recycling centre services.

"Closing or partially closing recycling centres will not help. Each incident of fly-tipping on private land costs the owner £844 on average to clean up. But why should innocent landowners bear the burden of this disgraceful crime?"

On the contrary, Walsall Council is considering extending its opening hours at its tips and introducing a free skip collection service every Saturday for bulky household items, in a bid to tackle fly-tipping, which cost its taxpayers in excess of £426,000 last year.

Defra view

In April, Defra environment minister Dr Thérèse Coffey said that any evidence linking councils charging to receive certain types of waste with an increase in fly-tipping was "inconclusive".

Last year, a Farmers Weekly campaign to raise awareness of fly-tipping in the countryside, in association with the CLA, urged the government to change current legislation, which places the responsibility of clearing fly-tipped waste on farmland on private landowners.

But Dr Coffey said allowing fly-tipped waste dumped on private land to be cleared without charge at household waste recycling centres would "not provide the right incentive to deter fly-tipping" or encourage people to "secure their land more".

Council aids prosecutions for fly-tipping on private land

## En route to World Routes

Dumping of waste on private land in Buckinghamshire must still be cleaned up by the landowner, but council officers do investigate private land fly-tip cases

Where the evidence allows prosecution, Buckinghamshire County Council (representing the Waste Partnership), seeks clean-up compensation on behalf of the landowner at court

More than 10% of cases – 71 out of 672 between 2004 and 2018 – have been where the waste was fly-tipped on privately owned land

There is no charge to the landowner for investigation work or for legal fees in these cases; the costs are recovered at court from the defendant

Investigators cherry-pick reports, however, and only pursue cases where there is a strong likelihood of prosecution

JOURNAL : Farmers Weekly

Testing has found that a significant number of supermarket products contain DNA from animals not on the labelling, with lamb the most likely meat to be “imitated”, according to a BBC investigation.

In the first eight months of 2017 it was discovered that out of 665 results from England, Wales and Northern Ireland collected by the Food Standards Agency (FSA), 145 were partly or wholly made up of unspecified meat, often a composite of multiple species.

In 37 cases, the meat specified on the label was not found in the product at all, and some samples contained DNA from as many as four different animals.

See also: Lamb watch: Which are the best retailers for backing British?

The samples came from 487 businesses, including restaurants and supermarkets, and the testing targeted businesses suspected of “compliance issues”.

A BBC Freedom of Information (Fol) request to the FSA found that 73 of the contaminated samples came from retailers, including three supermarkets.

A further 50 came from restaurants, and 22 originated from manufacturing or food processing plants.

Food labelling issues

Meat labelled as lamb was most likely to contain traces of other animals’ DNA, followed by beef and goat, the investigation found.

One inspector found a “ham and cheese” pizza that did not contain either ham or cheese.

In Coventry, inspectors discovered a supermarket and a kebab shop selling meat which showed signs of decomposition.

<https://infogram.com/meat-contamination-1hxj48871gog4vg?live>

A restaurant was found to be selling a product specifically labelled as “lamb korma – no peanuts” which contained no lamb, but did contain measurable amounts of peanuts, a danger to anyone with an allergy.

Cow DNA was the most commonly-found contaminant, followed by pig, chicken, sheep and turkey.

The most commonly mislabelled product was mince meat, followed by kebabs, curry, sausages, goat meat and burgers.

## En route to World Routes

Mislabelling was discovered at all stages of the production process, including farms, slaughterhouses, retailers and restaurants.

## Unidentified DNA

The FSA explained the “majority” of samples were tested for cow, pig, sheep, goat, horse, chicken and turkey DNA.

Other animals’ DNA could have been present in some samples, but may not have been identified as testers were not specifically looking for it.

An FSA spokesman said it was up to the relevant local authorities – which procured the samples before sending the results to the FSA – to lead individual investigations and take “appropriate action”, such as prosecutions.

He added that the results were “not representative of the wider food industry”, and less than half of local authorities submitted meat sampling data in 2017.

This latest data comes five years after the horsemeat scandal, when processed beef products sold by a number of UK supermarket chains were found to contain significant amounts of horse DNA.

## JOURNAL : Farmers Weekly

The end is in sight for the Scottish harvest, with spring barley continuing to disappoint in terms of yield, although quality remains strong.

In East Anglia harvest has restarted for some farmers near the coast, as their crops finally ripened, delivering good yields.

See also: [Job](#) profile: What’s it like to be a field trials manager?

## Scotland

The Scottish harvest is 80-90% finished, according to Robin Barron, general manager at East of Scotland Farmers. “It’s amazingly easy when the weather is good,” he said.

Yields have been disappointing, particularly on spring barley. “Concerto seems to have yielded lower than Laureate,” Mr Barron said.

The weather had also created a problem with nitrogen. “We have seen much higher nitrogen than usual which is problematic – we won’t know the full extent until the harvest has finished.”

There were also concerns that the dry weather would cause other quality problems, such as thin grains, Mr Baron added. “However, the screenings have been fine.”

## Tyne and Wear

Wheat harvest is at least 90% complete around Tyne and Wear, according to Gary Bright, managing director at Grainco. Yields have averaged 8.6t/ha, with feed wheat specific weights between 74kg/hl and 80kg/hl and moistures no higher than 17.5%. “Everything has been unseasonably dry,” he said.

“It’s been interesting to see how well things have generally done in terms of yields,” he said. Although crops had been about 10-15% down on the average, this was better than had been expected earlier in the summer.

“The worst crop regardless of land type has been oilseed rape,” he said.

Spring barley, oats and bean harvesting had mostly begun, with crops beginning to come into store.

He said oats had been a bit disappointing in terms of yield, “but it’s not the Armageddon we expected”.

## En route to World Routes

## East Anglia

In Norfolk, harvest had a second coming as the coastal strip of crops ripened after most inland fields had been combined, said Andrew Dewing, chief executive at Dewing Grain.

"Harvest had finished inland, as the weather had been fantastic and dry, but then it rained on and off. Then as of Saturday (1 September), it dried off and people were able to get into their coastal crops."

Although quality had been good, yields were disappointing on the inland crops, but the coastal strip had benefited from light winds and sea fret, Mr Dewing explained.

This meant that while temperatures soared into the 30s inland, it remained a balmy 18C on the coast, with crops getting moisture from the sea mist.

"This has meant very pleasing yields in the crop," he said. Yields of wheat inland were 10-20% down on the average, but were about 5% up on the coastal strip. "It's been very pleasing on the East coast."

## Kelso

Harvest has finished for John Jeffrey at Caverton Mill Farm near Kelso. "The great thing is almost everything came in dry," he said. "The drying costs were minimal."

However, yields are down and the straw is minimal, which is frustrating for Mr Jeffrey. "Everyone is desperate for straw this year."

His 141ha of Lili, Barrel, Skyfall and Revelation wheat averaged 7.4t/ha, performing better on heavier land in comparison with the light land, which suffered in the dry weather, said Mr Jeffrey.

He was pleasantly surprised by his 90ha of Palmedor high erucic acid (Hear) oilseed rape which achieved 4.2t/ha.

However, the Talisman and Pearl winter barley yields are slightly back on last year, averaging 6.6t/ha.

## Harvest progress

Scottish harvest is 80-90% finished

Wheat harvest was at least 90% complete around Tyne and Wear

Cutting restarted in East Anglia in coastal areas

Coastal crops yielding well

Still deciding which winter wheat and barley varieties to grow based on this season performance? Check out our yield maps and see which varieties have performed in the Recommended List trials at your local site this summer.

## JOURNAL : Farmers Weekly

We've had a bumper crop of entries for this year's harvest photo competition – almost 1,000 reader snaps were uploaded to our gallery.

We were impressed by the creativity of the shots entered this year and the huge variety in subject, from the traditional combining scene to stunning wildlife, dramatic weather and cute kids and pets.

## Winner

Congratulations to this year's winner Charlie Chambers, whose arresting aerial view of harvest in Northamptonshire won us over.



## En route to World Routes

This has been Charlie's first year working a harvest and he has been carting with Brixworth Farming Company this season.

"This image was taken one evening over one of our two combines as it was unloading into our other chaser," he says.

"I always carried the drone with me in the tractor and tried to time my flights when the bins were empty to give me the best chance of having good light, getting the drone up, getting the shot and most importantly not holding up the combines."

Picking a winner to feature on the front cover of the 7 September magazine was no easy task, so here are some of the runners-up, along with the photos that make harvest such a special time of year.

You can check out all of the amazing entries by heading to our 2018 harvest photo competition gallery.

See also: The latest harvest news and analysis

#### Runner up

A scenic backdrop really makes this picture of cutting oilseed rape in County Down, Northern Ireland. It was submitted by Peter Niblock and came a very close second in this year's competition.

#### Best of the rest

Alexander Winslade seized the moment of harvesting oats while chilling in the back of his Unimog.

A dramatic sky underlined with round bales at Sunk Island, East Yorkshire, captured by Carl Grundy.

Contributing this haunting image of harvest versus fire this summer is Richard James.

Charlotte Watlow grabbed a shot of her handsome border collie Moss keeping guard in Norfolk.

A Claas Lexion 770 Terra Trac in action before those skies open up in Shrewsbury, Shropshire. Taken by James Pugh.

A powerful reminder of how dry this harvest has been. Andrew Greenwood used his eye-in-the-sky to look down on a John Deere and Bailey trailer full of wheat in arid conditions in Lincolnshire.

A Claas Dominator presses on under an epic summer sunset in East Hardwick, West Yorkshire by Jon Barker.

Kevin Thomas captures this moment of a summer day in North Wales with contractors fetching in grass.

Leiston Abbey provides a scenic backdrop for harvesting wheat in Suffolk, taken by Steven Geater.

Combining with a golden heavenly glow grabbed by Micheal Szollosi.

Natalie Northway shares this photo of little farmer Hugo King at the helm of the combine (with some help from dad Sam), taken at their farm in Newbury.

Little and large – a snapshot sent in by Nick Combes. It features a Massey MF8 4m combine in front of a New Holland CR 10.90 with a 41ft header.

#### JOURNAL : Farmers Weekly

The US Farm Progress Show is a staple part of the North American machinery calendar and welcomes punters from across the globe.

But no sooner had it opened its doors for 2018 than a biblical storm swept across the Midwest, giving the event organisers no option but to shut down for the day and start a scramble for punters to get off the field car park quickly.

Fortunately, the show reopened for the following two days in much better weather, although field demonstrations were cancelled. Apart from the size, the biggest difference to UK shows is having to dodge the UTVs tearing around the showground, ferrying people from stand to stand or to the demo areas.

We've picked out a few of the best bits from the huge event.

### Precision Planting

'Helping farmers to produce more' is the drive for Precision Planting, which supplies a range of high tech equipment to farmers and manufacturers to improve the uniformity of drilling.

The jewel in the crown of the firm's offering is the Smart Firmer, which is a small, angled leg – similar to a hockey stick – that attaches behind the drill coulter to apply light pressure. This forces the seed into the furrow, helping to achieve better seed-to-soil contact and consistent emergence.

It also has a bank of sensors on its foot, relaying information directly to the 20/20 monitor in the cab for the operator to make on-the-go decisions.

In front of the coulter and disc unit is the Clean Sweep, which clears trash and debris to prevent it contaminating the drilling area. The sensors on the foot can detect if there are unwanted objects or plants getting into the furrow and will notify the operator as a percentage readout.

Along with keeping the seed trench clean, another sensor measures soil moisture and provides a second percentage reading. This creates a map indicating how even it is across the field, highlighting areas that may be slower to emerge due to moisture deficiency before the seed has even had the chance to chit.

Soil temperature is also fed back to the operator, along with a fourth sensor located in the same leg, which measures the organic matter in the soil by relating the shade of brown back to the temperature. This allows the operator to raise or lower the seed population depending on the organic matter present in certain areas.

Using this information means more seed is drilled in the areas when the soil has the potential for greater yield. Conversely, seed isn't wasted in low-yielding parts of the field. The sensors send over 1,000 measurements per second back to the operator and map the field constantly.

Along with the Smart Firmer, the company has technology for liquid fertiliser application around corners and seed depth control linked to the depth wheel – rather than using a constant pressure – which can drop seeds to different depths if soils are wetter.

Precision Planting sells into America, Canada, Brazil and most recently France, so don't be surprised to see this technology creeping into the UK soon. However, its preferred route to market would be to allow customers to spec its technology onto drills at manufacturing stage, without invalidating warranties and avoiding retrofit complications.

### Ag Synergy

Just like the UK, farmers in the US are realising that not all soils appreciate cultivation activity and zero till is becoming an ***increasingly*** popular establishment technique.

Kansas-based Ag Synergy has been making drills and related products since 2010 and on its stand in Iowa this year was a mini tracked coulter unit. Designed for use in light, low-moisture soils or drilling straight into heavy cover crops, the track units lift up and down in the same way a standard toolbar would.

## En route to World Routes

The tracks are made up of two separate rubbers with space in the middle for the disc and coulter. The tracks are unpowered and are driven by friction so require a minimum of 20hp per unit to pull.

Once lowered, the Genesis TRX can apply a huge 540kg of pressure to keep the coulter in the ground, which the firm says is the biggest challenge to stop the units bouncing around as they are individual and free to roam over ground contours.

These units are specifically for unmoved soil as cultivated land would bung up the track units and create a smearing effect. The straight disc helps to move minimal soil when drilling and the units have lateral movement of 5° to help with headland bends.

A 9m drill with track coulters costs around \$86,566 (£67,200).

### 360 Yield Centre

With its own demo area, 360 Yield Centre was showing growers how they can maximise returns from crops with nifty machine modifications.

Along with a large John Deere R4050i self-propelled sprayer with dribble bars capable of accurately applying nitrogen to the base of a maize plant by dropping it through the canopy, there was a JD Gator with a long rod sticking out from its nose.

On the rear sits a 1,100-litre tank on the 360 Sprint Gator that was ***filled*** with liquid fertiliser and acts as a refuelling vessel to keep the maize drill running in the field.

Driving up to the rear coupling on one side of the drill, the 360 Sprint has powerful electromagnets that snap into action and lock the hose to the drill. The 2in supply can unload the 1,100 litres in under 2 minutes, with the power coming from an onboard Honda engine on the Gator.

The Gator has received an extra axle and some beefed-up supports to accommodate the large tank, but it can still be returned to its original mode as there are no mods to the chassis.

This helps to keep the drill in the field and can also reduce weight as it doesn't have to run brim-full with fertiliser, thus reducing compaction and offering up to 30% increase in output.

### Salford fertiliser spreader

Spreading granular fertiliser accurately to 36m is as much dependent on the quality of fertiliser as the machine that is scattering it.

But Ontario-based Salford says it has done extensive testing with a variety of different granules from across the US prior to the launch of its new trailed spreader and is confident that most grades of fertiliser will be hurled to a 36m width.

Cleverly, it has 12 sections for auto shut-off managed through a TeeJet rate controller, which monitors the weight in the hopper against the material spread and adjusts the rate as speed varies.

A pan test kit is sold with every machine for farmers to calibrate their own equipment and the spreader is capable of spinning to reduced widths of 24m, with the 12 sections proportionally scaled down to fit the smaller spread.

There is only a PTO connection needed from the tractor because an inbuilt 132-litre hydraulic system powers the spreader, so a tug of 150hp could easily power the spreader on flat ground.

The new spreader starts at around \$70,000 (£53,000).

### Unverferth Equalizer track

## En route to World Routes

It was hard to miss the enormous Unverferth Equalizer tracks, which provide the footwear for the firm's monster chaser bin capable of holding 54m cu.

Measuring a whopping 42in wide and 148in long, the new tracks are claimed to be the biggest in North America and each one provides 4,410sq inches in touch with the ground.

The new Equalizer system offers the standard front-to-back pivot of 20° but also has a camber oscillation of 8°, so there is still full contact from the track and minimal digging in from one edge when working on sloped ground or driving along humped roads.

The tracks, in a slightly smaller format, were also on a trailed sprayer unit, with the firm saying these are gaining increased popularity with farmers wishing to tread more lightly – the track replacements can apparently halve the compaction compared with a wheel.

One of the smallest machines on the Unverferth stand was an ATV-towed twin-axle sprayer with 18m booms and a 750-litre tank that had no connection to the quad – instead it uses a static Honda GX 160 engine to power the TeeJet plumbing system.

## Crary Draper header

Draper belt headers might be a rare sight in the UK, but they are still hugely popular in the US. Still, they suffer similar issue with losses along the knife sections as the reel shatters grains from pods before the table catches them.

US manufacturer Crary has developed an air system that has angled tubes that hug the outside of the reel to force wind onto the knife section, thus blowing loose seed onto the belts behind to be ferried into the combine.

The 8in fan runs from a PTO drive on the opposite side of the feeder house to where a normal header connection attaches.

It was being shown on a 30ft John Deere header and the system, along with air supply tubes, lifts up and down with the reel and doesn't impact on the workings of the header. The company claims it can offer a saving of up to 0.1t/ac.

## Vermeer ZR5 1200

Farmers Weekly first covered the self-propelled round baler from Vermeer back in October 2017 when it was in the prototype stage, but it seems the firm's dreams are now reality and the SP baler has made it into full scale production.

The first five units are due on farms this August, with further models planned for next harvest. Many features remain unchanged from the prototype including the front axle suspension, Claas cab and the Cummins powerplant.

Cleverly, the baler unit can be removed in around 10 minutes for essential maintenance, with the pickup reel remaining in place for fingers to be changed easily, rather than crawling around on the floor. This also means the baler unit can be replaced and a new one can slot into the space without changing the tractor unit as well.

However, the likelihood of it ever coming to the UK or even Europe is a long way off due to the 3.6m road width and 5ft bale chamber. The company says it would be a hefty redesign in order to fit the European systems, and with no UK Vermeer dealers, it seems distribution would be an issue too.

## Mahindra buggy

Indian giant Mahindra is slowly adding to its repertoire of products destined for the ag market and the latest item to hit the US dealers is a 1-litre farm buggy.

## En route to World Routes

Mahindra has been selling its UTVs in the States for three years and the new model comes in either petrol or diesel variants and can have a second row of seats if required.

The buggy has some standard features that its competitors charge for, including an electric tipping body and tilting steering wheel.

Pumping out 83hp from the TGB engine, the 1000 model can reach 60mph and tow 1,100kg, with a payload of 544kg.

A carrot for any potential buyer will be the standard three-year warranty, which knocks spots off the competition and is unheard of on the buggy market.

The 1000 retails in the US for 17,210 USD (£13,370).

JOURNAL : Farmers Weekly

Farmer and entrepreneur David Shelton is nearing the end of building an entire beef and arable unit from scratch on a greenfield site in Leicestershire.

The site at Saxelbye Top Farm extends to about 283ha of pasture and arable land and Mr Shelton aims to grow crops and finish about 900-1,000 continental crosses once the mammoth engineering project has been completed.

The farmland had been sitting idle after the National Coal Board ceased operations there a few years ago, explains Mr Shelton.

See also: What's In Your Livestock Shed visits high-tech beef and sheep business

Now though, it has undergone a transformation, with three roundhouse buildings, almost four miles of concrete track installed, 2.4ha of concrete laid, huge silage and feed clamps constructed and a range of other storage bins and buildings put in place.

The project

One 45m roundhouse

Two 30m roundhouses

2.4ha (6 acres) of concrete hard standing

Almost four miles of concrete track

Machinery store

5,000t grain store

3m deep reception pits

Attenuation storage tanks

Two balancing ponds

Middens

Feed bunkers

Office

Control room

## Straw barn

### The beef housing

At the heart of the operation are three enormous circular beef sheds in what is the largest single installation ever undertaken by framed building designer Simpson and Allison (S&A), which produces the roundhouse.

Two 30m and one 45m diameter roundhouse cattle sheds are nearing completion and dominate the central area of the farmstead.

The first beef cattle will be brought in from grazing in early October, says Mr Shelton, who is from a farming family but amassed a fortune selling cars.

After a career building up the Motorpoint Group, Mr Shelton was able to come back to agriculture and bought a farm adjoining the new site in 2012.

It was here that he first used a 30m roundhouse to finish continental cross cattle bought in at about 12 months old.

The conventional pole buildings were run down and a roundhouse offered a ready solution to the problem, he explains.

“We moved cattle into the roundhouse and straight away started to see benefits – the cattle were calmer, disease levels were minimal and growth rates rose above 1.5kg a day.

“We were selling the cattle within 12 months over 700kg, killing out at 380-400kg and hitting R4 to U grades.”

### Stocking capacity

The improved performance in the cattle is the reason why Mr Shelton has opted for three of the circular houses at Saxelbye Top Farm, which he bought after the Motorpoint Group was floated on the stock exchange.

The aim is to increase the herd from 750 to 900 head grazed on about 500 acres.

The farm's arable area will produce some of the feed, while newly-constructed storage bins will hold maize, waste potatoes, brewers' grains, sugar beet and wheat straw. This will be put through a Keenan mixer wagon and fed through the winter after housing.

Each 30m roundhouse will hold 120-150 cattle, while the 45m version will take 240 to 300 animals.

This allows 4.7 sq m for each animal and provides a 60cm of feed space/head at the troughs, which run around the circumference of the circle.

### Building design

Even at the higher stocking rates, the air in a roundhouse is fresher than the conventional building, even on still, mild foggy autumn days, Mr Shelton says.

Company founder and managing director of S&A, Geoff Simpson explains that this is due to the shape of the roundhouse, which aids natural ventilation.

The design means the whole building acts like a chimney.

As the cattle's body heat warms the air in the open space under the roof, it rises, travelling, uninterrupted along the underside of the curved inner surface.

The warmed air exits the building through the hole around the centre pole at the top of the dome. The air exiting at the top is then replaced by cooler, fresh air drawn in through the open sides and this helps to reduce respiratory disease levels and boosting production.

## En route to World Routes

The improved performance seen on Mr Shelton's existing unit is in-line with expectations of a 15% uplift, Mr Simpson says.

A further reason for the improvement in performance could be due to the design's effect on stress levels.

Farmers who bought units have noted that stock were calmer and that new stock quickly settled down.

Mr Simpson suggests this is due to the high-visibility open span and visual contact with the rest of the animals under the roof.

"It is also due to the wide open space around the whole circumference of the construction. Cattle can see all around them, mimicking a situation where a herd rests at grass," he says.

### Construction and cost

#### Construction

In summary, this is a 15-month build project inspired by the client David Shelton together with S&A, and grain drying specialist JW Installations, explains Mr Simpson.

Despite the long timespan for the project, the roundhouses have taken the least amount of time to construct and can typically be erected in as little as four days, he adds.

The 1t PVC-coated polyester roof is constructed on the ground and attached to the lattice rafters. The steel columns, located on the outer edge, are also attached during this phase.

Then the roof is slowly raised up on hydraulic rams and the outer supports swing in underneath it as the roof reaches the final height.

The sheer amount of concrete at the unit has caused additional hurdles. The Environment Agency has insisted that two large balancing ponds and attenuated storage were installed to ensure run-off from the large concrete areas is contained.

In all there is around 2.4ha of concrete under the roundhouses, clamps and storage bins along with an additional four miles of newly-laid concrete farm tracks.

#### Cost

With the excavation bill to create drainage, balancing ponds and storage tanks for run-off higher than originally envisaged, the projected final total cost will be more than £3m, says Mr Shelton.

The bill for concrete is about £100,000/acre, while the total for feed clamps, grain drying and grain storage facility will break the £1m mark.

The above-ground cost of the roundhouse is £60,000 for the 30m units and £130,000 for the larger 45m set-up.

Timeline: from bare land to fully-functioning farm

2017

June Planning application lodged

November Site clearance starts

December Foundations and steel erection for machinery store

2018

## En route to World Routes

March Machinery store complete

January Foundations laid for 5,000 tonne grain store

April Major construction of 3m deep reception pit begins

May Steel erection of the plant tower and grain store starts

June Roundhouse construction underway

Balancing pond and attenuation storage created

Middens and feed bunkers begun.

August Office and control room begins with September completion date

Straw shed work starts with September target for completion.

September Drying equipment installation starts

Grain store floor concreting

Final Roundhouse nearing completion

October First cattle to be housed

JOURNAL : Farmers Weekly

Agricultural trials play a crucial role in testing a huge range of farm inputs or practices, including seeds, fertilisers and pesticides.

These products or practices need to be tested in a variety of locations and conditions to tease out the merits of each and provide farmers with the best knowledge and advice on which to use and how to maximise performance.

Farmers Weekly asked Sarah-Jane Osborne to give readers an insight into her role as field trials manager at AHDB, which plays a key role in assessing crop varieties for the UK's arable growers.

See also: **Job** profile: What it's like to be a plant breeder

Name: Sarah-Jane Osborne

**Job** title: Field trials manager

Company: AHDB

Age: 28

How would you sum up your **job**?

I'm part of the team that organises the trials behind the AHDB Recommended Lists for cereals and oilseeds.

The lists help farmers decide what to grow by providing information on yield and quality performance, agronomic features and the market options open to different varieties.

What does this involve day-to-day?

Everything from planning the "protocols" (we have to plan and record exactly how a crop is grown and treated so we can draw the most informative conclusions) and sourcing the seed to managing the initial tender process for trials which are carried out by external contractors, and inspecting the sites during the year.



What do you enjoy most?

In academia, some of the data that's produced ends up sitting on a computer and never really gets used. This is a really practical role and you feel like you're making a real difference.

The results and conclusions we come up with are relevant to farmers and it's exciting to see the potential of new varieties and breeding methods that are boosting agricultural productivity and increasing choice for different end-uses.

What's the downside?

The **job** is very **seasonal** and involves long hours in the summer, with a lot of travel. We need to inspect about 500 trials across the whole of the UK – so that means a lot of overnight stays away from home.

What percentage of your **job** is office-based?

I spend roughly 60% of my time in the office, the rest I am out in the field inspecting trials and demonstrating at variety open days.

What skills and qualifications are essential to do the **job**?

Ultimately, you don't need to be a maths genius or a statistician to do this – but you do need to be able to analyse data and interpret results. Attention to detail is important as there is a lot of information – you need to keep detailed and accurate records.

Good communication skills are also useful in my role as I'm interacting with lots of different people – whether that's farmers, external trial operators or plant breeders.

A driving licence is essential and agronomy qualifications, such as the Basis certificate in Crop Protection and pesticide application qualifications, can be extremely helpful for more practical roles.

What experience did you have before you started?

Some people come to **jobs** like this from a science background; others from a straight agriculture background. I studied Biology at the University of Nottingham, focusing on Plant Science for my Masters.

I then went on to study a PhD in Crop Pathology at Rothamsted Research, where I managed field trials. I loved the applied aspect of my research and I wanted to move into a role where I could help provide growers with practical, technical information.

What advice would you give to someone wanting a similar role?

It's a very enjoyable **job**. You need to be able to multi-task and prioritise, though, as you'll have a number of projects on the go. It is also important to stay independent as we deliver objective recommendations to AHDB's levy payers. Work such as this has to be thorough and rigorous, so farmers can rely on the information we generate.

Give us an idea of salaries

They vary – but manager level roles could be between £28,000 and £35,000 depending on experience and can include benefits such as private healthcare and a car.

JOURNAL : Farmers Weekly

John Deere has unveiled a new track system for its big S700 combines and T550, T560 and T570 straw walker machines.

## En route to World Routes

The company first launched a rubber belt option for its flagship S-series back in 2011 when it built the units in-house at a Hungarian factory and they have proved popular, with up to 60% of S-badged machines sold in the UK now fitted with them.

However, that operation has since been sidelined, with Deere instead choosing to partner with Canadian track specialist Soucy, which also supplies units for the likes of New Holland and Case-IH.

The change has added an extra width option – 30-inchers join the existing 24in design – and all new tracked machines can be ordered with either a 30kph or 40kph speed limit. Opting for the faster set-up, which requires minor tweaks to the hydrostatic transmission software, costs £2,493.

There are also 36in tracks, but they take machine width out to 4.55m, which rules them out on UK roads.

See also: Laverda dealer finds exotic homes for old combines

### Design

The company has stuck with the same triangular layout that uses a positive drive through a central spoked wheel and internal track lugs.

Central to the combine-only design is a five-pivot-point arrangement that should avoid the peak loads associated with more rigid track layouts. Two of the pivot pins allow the rollers to split, helping to climb out of dips.

Idler rollers have up to 180mm of vertical movement – an improvement of 50mm over old models – which has seen a 20% reduction in vibrations at the driver's seat and, says Deere, a 50% improvement in durability.

The new tracks are particularly long, which helps provide a footprint roughly a third larger than what went before, while still keeping under 3.5m wide on the road (on 24in tracks). There's also a deeper tread profile and an extra layer of steel cord in the rubber, which should make them last a bit longer.

Other details to note include enclosed gearboxes and bearings don't need regular greasing, self-lubricating rollers and a 500-hour oil service interval.

The track option costs £56,858, on top of the track-ready price of a T560 combine (£300,376) or S770 (£343,028).

### W-series

Deere has also announced a few small changes to the W-series, which is made in Finland by Sampo.

The firm's smallest machines now have a bigger cab, increased unloading speeds and a new control layout with a colour touchscreen, which stores basic threshing settings.

The W330 PTC, which will carry a maximum of a 16ft header, now has the option of lateral tilt on the header to help follow ground contours and a quick coupling system for hooking up the header.

W- and T-series straw walker machines have also been given a few internal tweaks to the cleaning shoe and separator drum that have improved throughput in most crops.

### Tractors

On the tractor front, Deere has rolled out its CommandPro joystick to the full range of 6R machines, after originally launching it on the 6230R and 6250R at the end of 2016.

It works in similar fashion to a Fendt joystick to control forward speed and includes 11 programmable buttons for the likes of the linkage, pto, spools and guidance.

## En route to World Routes

The tractors also get JD's 8.4in Command Centre 4200 display, which is 20% bigger than the 4100 and can be used to control guidance, section control, data documentation and Isobus-ready machines.

Lower down the horsepower ranks, the 90-125hp 5R range can now be specced AutoTrac-ready from the factory, rather than fitting a steering wheel motor.

Other new features include an extendable pickup hitch with hydraulic push-back via one of the spools and variable-ratio steering, which reduces the number of turns of the wheel from lock to lock.

JOURNAL : Farmers Weekly

Kramer has continued the expansion of its telehandler range in the UK with two new machines.

Since exiting from a manufacturing agreement with Claas, the German company has reached an agreement for its machines to be sold through John Deere dealers. There are no immediate plans to paint the loaders in Deere's livery, however.

The KT407, one of two new ag-spec machines, is powered by a 136hp Deutz four-cylinder engine running through a three-speed hydrostatic transmission.

The only significant changes from the older KT357 are in the lifting department – it is specced to lift 4t and reach to 7m, which has been achieved by bolting a bigger counterweight to the back end.

The second new model is the 4.2t lift, 9m reach KT429, designed for straw contractors. In simple terms, it's a tuned-down version of the firm's 5.5t telehandler, carrying a smaller engine, lighter transmission and axles, and no counterweight.

See also: Video: On test – Kramer's KT357 telehandler

JOURNAL : Farmers Weekly

The UK government should be actively encouraged to invest in lab-grown meat to secure a more sustainable food source for the nation, according to a report from the Adam Smith Institute.

Researcher Jamie Hollywood and Adam Smith Institute president Madsen Pirie argue that lab-grown meat offers a "cleaner, healthier, cheaper" alternative to traditional meat, and is also less harmful to the environment.

Their report, Don't Have a Cow Man: The Prospects for Lab Grown Meat, predicts that the commercialisation of lab-grown meat is likely to happen within five years as the cost of producing a "cultured meat" burger has fallen to around £8 per piece.

See also: 3 high-tech solutions coming to improve UK farm productivity

"With an ever-growing global demand for meat and the mounting environmental concerns around sustaining agricultural practices, cultured meat is a welcome and positive innovation that can (and no doubt will) revolutionise the food industry," says the report.

It explains that lab-grown meat is produced by extracting stem cells from animals, such as a cow, and then growing and multiplying them in a lab to create an edible meat.

The report concedes that scientists have not yet fully mastered how to grow lab-grown cells to form the same texture as "actual" meat. But once these obstacles are overcome, cultured meat production "could create meat which is identical to traditionally grown meat".

Take our poll: Is lab-based meat the next food revolution?

Green opposition

## En route to World Routes

But researchers say that the production and consumption of lab-grown meat will be opposed by farmers and some environmental campaigners “on the grounds that it is not natural”.

Indeed, on Tuesday (28 August) Missouri became the first US state to pass a bill banning the use of the word “meat” to describe “lab-grown meat”. Under the ruling, food manufacturers in the state are now banned from marketing products from lab-grown meat or meat substitutes as “meat”.

The bill was passed following a petition filed to the US government by the US Cattlemen’s Association, over the legal definition of terms such as “meat” and “beef”. The association argues that the legal definition of meat must be reserved for foods produced only from a living, reared and exercised animal.

## AHDB report

In the UK, the Agriculture and Horticulture Development Board (AHDB) published a report in July exploring the rise of plant-based products and the implications for meat and dairy. This includes a section on cultured meat (grown from cells).

The AHDB report says: “Proponents argue it is a largely cruelty-free and more environmentally sustainable method of producing proteins.

“Thus far, the process has been successful in growing a mince-type substance that could limit the applications. However, plans are in place to develop this more widely.”

The report explains that Tyson Foods, one of the largest food processors in the US, has funded Future Meat Technologies to invest in research in cultured meat. But the AHDB says the “bigger limitation” is that “it is not yet economic to produce, with costs per kilo in the thousands of dollars”.

“Future Meat Technologies has claimed it can bring prices down from around \$800/kg to as little as \$8/kg for its cell-cultured meat in six to eight months,” adds the AHDB report.

## Seven key claims from the Adam Smith Institute report

1. By the end of 2050, it is estimated that the demand for meat and drink will increase by 70%
2. Lab-grown (or cultured) meat could mean a cut in agricultural greenhouse gas emissions of 78-96% while using 99% less land
3. Five years ago the cost of a burger made with meat grown in a lab stood at \$250,000, but now the price tag has dropped to just £8
4. With farming using up to 70% of antibiotics critical to medical use in humans, cultured meat has the potential to solve the looming antibiotic resistance crisis
5. Cultured meat also will reduce cases of food poisoning, such as campylobacter from chicken, as unlike on farms, growth takes place under controlled conditions
6. Cultured meat would help lower the risk of zoonotic infection (infection transmitted to humans via animals)
7. Some animals currently endangered or deemed “at risk” could have meat generated from their cells to provide up-market diners with more exotic dishes

Vote in our poll

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## JOURNAL : Farmers Weekly

The US Farm Progress Show is the place to see all the latest in farm machinery developments, including GPS kits.

These range from top-grade, super-accurate RTK setups to those designed as a cheap way to get into farm guidance equipment.

### Farmer Edge

Hiding away in a yellow tent was tech company Farmer Edge, displaying its range of telematics and satellite imagery options.

The latter use the company's Dove satellites to take photos of a farmer's field, with a resolution down to 3.1m, every 2.7 days during the growing season, sending normalised difference vegetation index (NDVI) images back to the farmer.

These colour-coded maps can show the early onset of a disease outbreak or the beginning of a pest attack for a cost of \$1.50/ac. Catching outbreaks early means that rather than a blanket approach, pesticides can be used only on the affected areas.

Employing a team of 75 developers has also allowed Farmer Edge to build a Canbus hack for any colour of machine, allowing yield maps to be shared from one machine to another.

See also: High-tech drilling kit unveiled at US Farm Progress Show

The company openly admits that it probably isn't popular with the mainstream tractor makers, as its tech allows growers who run multiple-branded fleets to be able to process information from the machine.

The option for a Fendt sprayer to take yield data and guidance lines from a John Deere combine and use it to apply variable-rate chemical, without the need for an unlock code, is something farmers are very keen to have, the company says.

Once the system is fitted – which takes less than an hour – the farmer can see exactly where each machine is via the company's web-based Farm Command platform.

Here, each machine displays everything from live fuel levels and current rpm to combine yield data, viewable from anywhere with an internet connection.

The option to see live locations and previous paths is also possible – ideal if you need to check how the harvest team is getting on.

The company has equipped most major machines but says adding new ones is not an issue, as the device will listen to the new machine and send data back to the engineers, so they can interpret the signals and write this into the code for future installs.

This costs about \$3/ac but quickly gets around the headache of not having machines talking to one another.

### Wheelman offers GPS for any machine

Self-steering GPS might seem a pipedream for many small farmers, but for \$3,495 (£2,700) you can have a bolt-on kit that offers accuracy to about 10cm and can be fitted to a combine, sprayer or tractor.

Developed by AgJunction, the kit can be ordered online, then fitted and calibrated by the farmer in less than an hour, with the main job being to remove the steering wheel to mount the new one.

## En route to World Routes

Once the device is fitted and connected to a live power source, a smartphone or tablet is used to calibrate the steering. The app is available on both iOS and Android platforms and the three-step process needs to be done only once, on the initial install.

The only other installation ***job*** is mounting a small antenna dome on the vehicle's roof and running the wire back to the steering wheel unit.

Crucially this needs to be sited on the centre line of the machine to achieve the necessary accuracy. On a combine it would be mounted at the front of the cab, whereas on a tractor it would need to be closer to the rear.

AgJunction gave farmers visiting FPS the chance to try fitting the unit to a 45-year old John Deere 4230, proving that it can be used on any tractor.

Crucially, the unit can run without the need to be within range of a phone signal. There is also no dealer costs or ongoing subscriptions and there is a 24-hour call centre to sort any issues, which can connect straight to the device.

The company says that payback should be around 90ha and the software allows various implements and machine widths to be stored in memory, so switching between a sprayer and cultivator can be done at the touch of a button.

Currently, there is only the option of straight-line guidance but future developments will include contours and curved line steering.

These will be updated on to existing units automatically, along with Wheelman Flex, which will allow easily switching of the unit between machines.

### Outback Guidance

Some UK users will be familiar with Outback's GPS products, which include a range of auto-steer units from replacement steering wheels to full RTK systems.

In particular, the American company has been supplying Claas with all its steering software for the past 15 years, although the German giant rebrands every unit with its own logo.

Pride of place on the stand was the Claas S10 equivalent screen, which retails for \$11,995 (£9,314) and offers accuracy to 2.5cm.

It uses proportional controls, rather than the hydraulic ram versions on less accurate models.

The S7 screen has about 15-20cm accuracy and costs an appealing \$5,995 (£4,655), with the system able to be installed by the farmer. All the hydraulic hoses are colour coded for plug-and-play set-up, too.

Outback GPS has 150 dealers in North America and is direct competitor for Trimble, GreenStar and Topcon. However, due to the Claas tie-up we are unlikely to see Outback-branded GPS gear in the UK.

### Digi Farm

DigiFarm reckons it can offer a cheaper route to an RTK-accurate GPS signal using its multiple base stations across the United States.

Once online, the system uses its real base stations to create a virtual base station close to where you are working, so the signal is strong and lines are repeatable year on year.

The signal can work through any RTK system available on the market today, including GreenStar, Trimble and Topcon, for an annual cost of \$900 (£698) per unit.

JOURNAL : Farmers Weekly

## En route to World Routes

Martin Button cut all his winter barley in June this year, which was the earliest in living memory, even for him, on light sandy soils on the edge of the New Forest.

Cereal crops mature early in this southwestern corner of Hampshire and he has a strategy of early drilling and high seed rates to prepare for the dry spring which he knows will come.

Add in early nitrogen fertiliser in February and direct drilling, then it is clear that all his focus is on getting crops well established before the spring winds funnel up the River Avon valley and dry out his soils.

Many growers have suffered in this summer's heatwave with crops wilting, but he is used to droughts and focuses on crops suited to light land, such as rye, soya and millet, as well as wheat and barley.

"Everything is aimed at getting crops growing quickly and conserving moisture before dry weather comes to stress the plants from May onwards," he tells Farmers Weekly.

See also: Cover crops help give structure to light Norfolk soils

Too light to grow wheat

He has spent the past 32 years on the 1,600ha Bisterne Farms estate, latterly as arable and environmental manager, covering a range of soil types from land too light to grow wheat down to rich river meadows in environmental schemes.

Cereal crops are all autumn-sown so they can get well established to cope with the spring drought, while break crops of maize, fodder beet, linseed and soya are spring-sown, with the emphasis always on quality rather than quantity.

"We are never going to get barn-busting yields on these light soils so we look to win premiums for the crops we grow," he says.

That means Skyfall milling wheat, winter rye grown for Ryvita and winter barley for seed, and all are drilled early to get good establishment and good rooting before the winter months.

Winter barley drilling starts in the second week of September on the estate where he is in charge of managing 320ha of arable land just south of Ringwood, and some six miles from the coast at Christchurch where the River Avon enters the sea.

No blackgrass

All winter cereals are drilled by the end of the September, and he readily admits that the early drilling regime requires the absence of blackgrass on his light well-drained land, but he still needs to hand rogue any wild oats which creep into his fields.

Drilling seed rates are pushed up to encourage more tillering and improve their survival rate, with winter wheat drilled at 188kg/ha and winter barley at 150kg/ha.

The next move in the strategy to lessen the effects of drought came three years ago with a switch to direct drilling, and a 4m-wide John Deere 750a drill was bought as part of the farm's conservation tillage approach to retain moisture in the soil.

"Crops look better in the winter as they establish quicker and show better rooting, and we have not seen any yield dip from the changeover," he says.

Only plough when absolutely necessary

Ploughing is now used only when absolutely necessary to correct severe problems, as he has seen the no-tillage approach adding organic matter to the top 10cm of the farm's soil.

## En route to World Routes

The one downside of no-tillage is that slugs have become a problem, and a stubble rake has to be employed before drilling and slug pellets after drilling.

"But the soils have improved as they are more friable, with more organic matter and more earthworms," he says.

Nitrogen rates are a conservative 200kg/ha on winter wheat and 170-180kg/ha on barley, and he is keen to get on as early as possible in February with a 30-40kg/ha dose to get crops growing.

He started cutting his 44ha of Tower winter barley on 27 June this summer, about two weeks earlier than normal for the farm, with a respectable yield of 6-7t/ha for such a dry year. The farm's medium-term average is just over 8t/ha.

"The start to harvest was the earliest in my time on the estate, whereas we would normally start around my birthday on the 12 July," he says.

## Good specific weight

The barley was harvested very dry at 12% moisture, but despite the dry weather and the barley grain appearing a bit pinched it produced a good specific weight of 70kg/hl.

Some 60ha of Skyfall wheat yielded 6.9t/ha when the farm's average is a touch under 8.5t/ha, and the 60ha of winter rye was a bit lower than the farm's five-year average of 7.5t/ha.

Looking back, it was tough growing year with waterlogging in the early spring and then nine weeks without rain which saw small patches of crops became very dry and dying off, he says.

With little moisture around at the grain filling stage, he saw a lot of blank grain sites in the wheat at harvest and generally small heads in the barley.

For the future, the estate is looking to rotate grassland which is used for a 520-strong dairy herd across the arable area to improve soil fertility, and this will start soon with new leys planned and old leys ploughed up for growing winter wheat.

All the cows are cross-bred and include Friesian, Jersey and Norwegian Red blood. They can be kept outside for most of the year which fits in with the estate's philosophy of improving its light soils with grazing livestock.

"We are looking after the soil for the future, and we are also using plenty of compost and farmyard manure where we can," he adds.

Half the straw from the estate is usually chopped each year, but this harvest virtually all was baled and sold due to the high prices and demand from livestock farmers further west.

## Winter barley at Bisterne Farms

Variety

Tower

Drilling date

Second week of September

Seed rate

150kg/ha

Spring nitrogen

170-180kg/ha



Harvest date

27 July 2018

Yield

6-7t/ha

JOURNAL : Farmers Weekly

With maize being cut or close to harvest in many parts of the country, growers need to focus on the clamp, believes Neil Groom, technical director at Grainseed.

Minimising clamp losses will be even more important this year, with low forage stocks due to the summer drought.

"We have foragers with high chopping capacities enabling large areas to be quickly cleared but it's important to load the clamp well to get efficient fermentation and reduce losses," said Mr Groom.

See also: Poor growing conditions could see reduced maize starch yield and lodging

Clamping best practice

"The MGA [Maize Growers Association] rule of thumb is that you need 25% of the crop weight arriving in the clamp every hour in steel weight rolling the clamp.

"So, if every 10 minutes there is a 15-tonne trailer arriving, that's 90 tonnes of maize an hour and so you need around 25 tonnes of tractors rolling the clamp – that's a buckrake and an extra rolling tractor," Mr Groom advised.

"With larger clamps we have seen the use of compactor rings, piste bashers and even vibrating rollers consolidating the silage. All of these require shallow layers of maize to be pushed up by the buckrake because you cannot compact deeper than 6in per layer."

Mr Groom has advised farmers to:

Pay particular attention to the shoulders of the clamp and the clamp walls, which should always be lined with a plastic sheet to prevent clamp acids eating into the concrete

Keep rolling the top of the clamp once it is ***filled*** to get really good consolidation in the top metre of the clamp where heating can occur

Sheet with an oxygen barrier film, a bird net and weight down with gravel bags or mats to keep the sheet in close contact with the silage

Keep the clamp sealed for four-six weeks to ensure perfect fermentation and allow time for the starch grains to soften ensuring cows can digest all the starch in the rumen during feeding

If you wish to open the clamp sooner, consider making a small clamp for feeding first or using a modern silage additive which can remove oxygen from the clamp and ensure a faster fermentation

Farmers Weekly sampling sites

Sampling for Farmers Weekly in Harleston, Norfolk, Toby Tibbenham has predicted he will be harvesting next week.

"Last week's dry matter surprised us and we have had a careful look around all our crops this week," said Mr Tibbenham.

## En route to World Routes

"I want some really high energy maize for next winter's ration and so I think cutting next week will be perfect and this will allow us to get the fields cultivated and drilled into wheat in good conditions."

The crops on Farmers Weekly sampling sites in Devon, Carmarthenshire and Derbyshire are also maturing nicely (see below).

If good weather continues, maize will be ready to chop in September in most areas of the country, predicted Mr Groom.

## Maturity on six sampling sites

Site

Drill date

Height above sea level (m)

Crop dry matter 29 August

Increase from last week

Petworth, Sussex

2 May

50

Harvested

Harleston, Norfolk

6 May

30

31.5

+0.6

Crediton, Devon

1 May

118

29.4

+3.3

Ticknall, Derbyshire

4 May

67

28.7

+2.0

Llandeilo, Carmarthenshire\*

6 May

32

26.3

+3.6

SRUC, Dumfries, Scotland PLASTIC

30 April

45

21.2

+0.9

\* Variety Es Picker, all other sites are Es Ballade. Variety under plastic Es Marco

JOURNAL : Farmers Weekly

Two leading UK dairy processors have held milk prices for October as uncertainty surrounding winter milk production volumes overhangs the market.

Muller has held its liquid standard litre with a constituent content of 4% butterfat and 3.3% protein at 29.5p/litre for next month.

See also: Cross-bred cows v Holstein: How they compare

The processor, which does not announce price holds publicly, will pay its 650 direct suppliers the same price as for September, following a 1.5p/litre price rise for that month.

<https://infogram.com/muller-october-milk-price-1h984wnovodd4p3?live>

Meanwhile, cheese processor Barber's has held its manufacturing litre with a constituent content of 4.2% butterfat and 3.4% protein for its 150 producers at 30.68p/litre for the same month.

The cheese manufacturer said that the price hold came after some of its producers had been severely affected by the drought, which had added 2-3p/litre to costs of production.

<https://infogram.com/barbers-milk-price-1h0r6r80lqlw4ek?live>

"People look at national production and think it is business as usual," said Barber's milk supply manager, Michael Masters.

"But the reality is production changes are localised and our producers are located in a geographically small area and will likely be below forecast come the winter.

"Farmers have supported national production by feeding extra silage, whole crop and concentrates, which have pushed their costs up."

Mr Masters added that one Barber's producer had doubled the amount of cake he fed each cow from one to two tonnes a year – highlighting the pressure on producers' bottom lines.

## En route to World Routes

However, the current customer and retail market was extremely challenging, with imported cheese and butter as competitive as ever, said Mr Masters.

## Dairy markets

The latest UK dairy wholesale prices saw average values for butter, cheese and cream all climb in August off the back of slow trade across the continent.

<https://infogram.com/uk-wholesale-prices-table-1h984w8vnzrd4p3?live>

UK milk production dropped by 0.4% for the week ending 25 August – equal to 100,000 litres of milk, according to AHDB Dairy.

The levy board said that if production continued in this vein until the end of the month, it would be 1% ahead of forecast at 1,011m litres, and 8m litres behind its level for August last year.

## JOURNAL : Farmers Weekly

The poultry industry must renew efforts to market entire chickens to British consumers, as opposed to breast meat alone, if it is to make the most of an ***increasingly*** likely “no-deal” Brexit.

In the UK chicken breast is by far the preference for shoppers, with thighs and wings largely exported to European and third countries.

The value in a whole chicken is made up of the breast meat sold at a premium to the domestic market, plus additional revenue from exporting unwanted parts.

See also: How to review your farm business to prepare for Brexit

But if Britain leaves Europe with no trading agreement in place this setup will be fundamentally disrupted, a new report has found.

A paper written by the think tank ResPublica and funded by the British Poultry Council warns that crashing out of the European single market is the worst possible outcome for the British poultrymeat sector, which has an annual turnover of £7.2bn and employs nearly 90,000 people.

It suggests the price of chicken – which accounts for nearly half of the meat eaten in the UK each year by volume – will rise, and the door to cheaper imports produced to a lower standard may open.

As a result, a “two-tier” market could emerge, with poorer consumers forced to buy imported chicken while more affluent shoppers enjoy fresh British poultry that “has some of the highest health, environmental and welfare standards in the world”.

## Labour compromised

In addition, the report found that labour availability within the sector had already been compromised by the vote to leave Europe.

With 60% of the workforce coming from Europe, its cost had already risen by 25%, it suggested.

Finally, the standards of production could slip if the EU’s framework for environmental controls, such as ammonia regulation, are not adopted rapidly by an independent British government.

But it argues against pushing for 100% self-sufficiency in poultry production, saying: “Genuine food security is achieved through diversifying supply and diversifying the transport network through which food is brought to the UK”.

## JOURNAL : Farmers Weekly

An investigation has been launched by the Health and Safety Executive for Northern Ireland after a man died while baling silage.

Caldwell Moore, a 67-year-old grandfather, is believed to have fallen between the bales while he was working at the farm in Ardstraw, near Omagh in County Tyrone.

Police were called to the farm on Sunday (2 September) morning where Mr Moore had died suddenly.

See also: Let's work together to improve farm safety record

The Police Service of Northern Ireland said a post-mortem examination was due to take place to determine the cause of death, which is not being treated as suspicious.

A spokesman for the Health and Safety Executive said: "HSENI is aware of a fatality on a farm in the Ardstraw area and is investigating the circumstances.

"Our sympathy is with the man's family at this most difficult time."

## JOURNAL : Farmers Weekly

As agricultural vehicles go, the Ariel Nomad might seem like a pretty extreme choice. OK, so it's not a proper workhorse, but it could be the perfect way to unwind, and with genuine off-road ability, sharp handling and explosive performance, it promises to be as much fun on a dirt track as it is on the race track.

It comes from Ariel Motor Company, a family-run business based in Somerset that's backed up by some seriously heavyweight engineering talent.

Boss Simon Saunders worked for Porsche and Aston Martin before setting up his own business and reviving the historic Ariel name in 1999. Since then, Ariel cars have gained a reputation for top-notch build quality and supercar-slaying pace.

The Nomad draws heavily from the track-focused Ariel Atom, with the same mid-engined rear-wheel drive layout and exoskeleton construction.

However, there's far more to it than simply an Atom with raised suspension – every single piece of the chassis is different and there are only a handful of components shared between the two cars.

See also: Land Rover Defender gets £80,000 Twisted treatment

## Design

The heart of the Nomad is a 2.4-litre four-cylinder engine taken from the US-market Honda Civic Type S.

Even in regular form it produces a very healthy 235bhp, but this example has been fitted with the optional supercharger kit, which takes it up to 300bhp and 300Nm of torque.

Combined with a kerb weight of just 680kg, this gives the Nomad a better power-to-weight ratio than a Ferrari 458. It's quicker off the line too, with a 0-60mph time of just 3.2 seconds.

Ariel builds each car to order and there is a faintly bewildering array of options.

Chief among these are three different suspension packages (loosely equating to road, off-road and track) plus a choice of six different wheel and tyre combinations.

There's also an on-road pack that includes lights, switch gear and an IVA test.

## En route to World Routes

Further down the list you'll find a variety of performance upgrades, including a big brake kit, a lowered final drive ratio and, of course, that supercharger.

## On road

It goes without saying that the Nomad is seriously fast, but what's more impressive is the way the performance is delivered.

It's an intensely visceral experience, with the road close enough to touch through exposed chassis tubes and the spine-tingling howl of the supercharger just behind.

But it's also surprisingly well-mannered. On dry tarmac there's loads of traction, while the unassisted steering chatters with feedback and the chassis seems to pivot directly around the driver's hips.

The Nomad is quite unlike anything else on the road. Despite its generous ground clearance, the seat is mounted so low and the suspension is so well controlled that you're never really aware of being in an off-roader.

It's closer in character to lightweight sports cars such as the Caterham Seven or the Ariel Atom, but it feels different to those as well. The sense of occasion as you thread yourself – Dukes of Hazzard style – through the roll cage is priceless.

The details are brilliantly engineered too. Somehow the Honda gearbox feels even better in the Nomad than it does in the Civic Type R, while the pedals are perfectly set up for heel-and-toe.

Likewise, the unservoed brakes offer plenty of stopping power and good pedal feel. The only real downsides are limited rear visibility and the fact that it's difficult to lean forward at junctions when you're strapped into the four-point harness.

## Off road

The quality that most defines the Nomad is its versatility. It's an immensely rewarding car to drive on the road; capable of keeping up with just about anything on four wheels, but you can also drive it straight on to a field or a farm track. And that's where the real fun begins.

It's predictably easy to overwhelm the road-biased all-terrain tyres when you've got 300bhp at your disposal, but there is a reasonable amount of grip, aided by the standard-equipment limited-slip differential.

The options list includes proper mud terrain tyres, which would obviously improve things further. What's more, you can specify features such as a raised air intake, Fox dampers with hydraulic bump stops and even a winch.

With the adjustable suspension in its off-road configuration, the Nomad has 300mm of ground clearance – comfortably more than a Land Rover Discovery – not to mention an approach angle of 71 degrees and a departure angle of 82 degrees. And at the end of the day, the cockpit is designed to be hosed out.

## Our verdict

Nothing else matches the Nomad's combination of on- and off-road ability. It's as exciting to drive as supercars costing 10 times as much. And while it's designed primarily for fun, that's not quite the end of the story.

Our test car came with a tow hitch (said to be capable of pulling about 600kg, although it's not officially rated for road use). One Nomad owner apparently uses theirs to tow a mower, while another is said to have hitched up a slug pellet spreader.

And that got us thinking: maybe it does classify as an agricultural vehicle after all

## En route to World Routes

Specs: Ariel Nomad

Engine 2.4-litre, inline four-cylinder petrol (with optional supercharger)

Transmission six-speed manual with limited slip differential

Power 300bhp @7,200rpm

Torque 300Nm @4,300rpm

Top speed 136mph

Fuel consumption 25mpg (est)

Kerb weight 680kg

Payload 1,100kg including fuel and passengers

Towing capacity 600kg (see text)

Ground clearance 300mm

Approach angle 71 degrees

Departure angle 82 degrees

Price £28,330 (basic price excluding road pack, supercharger kit or VAT)

Price (as tested) £37,292 (inc supercharger kit, RFL and registration)

Price (as tested, inc VAT) £44,689

Servicing 4,500 miles or 12 months

JOURNAL : Farmers Weekly

It's a year ago now since I went to bed with the local primary school teacher and woke up the next morning lying next to one of the local sheep farmers.

In some circles, this might sound like one hell of a night out, but it's not the sort of thing that happens very often in rural Wigtownshire.

I should explain that it's been exactly 12 months since Mrs McQ gave up her job as a schoolteacher to become a farmer.

See also: Why we need good health and good role models

I have to be honest and admit that I wasn't sure if she was doing the right thing at the time. I was fairly certain that once she stopped bringing in her regular wage we would still be very happy – but stony broke until the end of time.

However, Mrs McQ was more positive about our future than I was. She was confident that, once she started to devote all of her time to the farm, our income would start to go up. This, in turn, would more than compensate for the loss of her regular pay cheque.

It wasn't long into the experiment before it became obvious that she was right about things on the farm starting to go up, but it wasn't our income.

Our feed bills have been on an amazing upward trend during the past 12 months. Our vet and medicine expenses have also spiralled in an upwards direction.

## En route to World Routes

Mrs McQ had obviously not allowed for 10 months of winter and two months of drought when she did her forward planning last year.

Then there was the misguided notion that we would be able to enjoy more time together now she was working at home. The truth is, I see less of her now than I did when she went to school every day.

She disappears in the morning (with my sheepdog) and I never know when she'll turn up next. You've no idea how annoying it is when she comes in after dark and tells me everything that she's done that day. Even worse, she rarely ever asks me what I think she should be doing next.

With our costs all up on the year and a steady decline in the price of prime lambs, my earlier predictions of a cash flow crisis this autumn seemed almost inevitable.

I was just building myself up to having the "I told you this would never work and if you keep on going this way we'll be ruined" conversation with her, when we took our Beltex rams to the auction mart at Carlisle last month.

Dammit, our rams have never looked better and many people in the auction mart were very quick and kind enough to tell us that.

Our rams just looked as if someone had been taking good care of them every day. They had never been allowed to go lame and they had received all their wormers, vaccines and vitamin drenches when they were supposed to during the previous 12 months.

As a result, we achieved great prices in the market for our rams this year and our income will undoubtedly be up.

Oh, I just hate it when she's right. The expression "every day's a school day" has taken on a whole new meaning for me.

## JOURNAL : Farmers Weekly

For most people, it is far from an easy conversation to have, but with World Suicide Prevention Day approaching this Monday (10 September), it is really important to talk about an issue that has plagued the farming community for many years, and continues to do so today.

Farming consistently has one of the highest rates of suicide amongst all occupations. Despite a greater awareness of mental health within the industry, the sad truth is that more than one farmer a week takes his or her own life in the UK.

See also: Suicide – investigating a farming taboo

In wider society, it is thought that any one suicide has a significant impact on eight other people. Within farming, because of the close-knit nature of our working and social lives, the impact goes far wider, devastating whole communities.

Thankfully, the topic of mental health does not carry the stigma that it once did in the farming community. As awareness is raised, the "stiff upper lip" mentality that has been entrenched in farming for generations is slowly diminishing.

People are beginning to open up and talk about how they are really feeling. But the fact that the number taking their own life is not decreasing shows that much more needs to be done to tackle this issue.

Farmers have to overcome multiple issues on a daily basis, some of which are beyond control: fluctuating market prices, animal disease, the weather, lack of fodder, the potential impact of Brexit and rural crime to name but a few.

Combine these stressors with the isolation and the pressure to make the farm business a success, and it is hardly surprising that so many within the farming community struggle with poor mental health.



### Easy to underestimate

When it comes to farming, it is very easy to underestimate just how important the mind is. Along with the body, it is, without doubt, the most important bit of kit a farmer can have. If the mind is not well maintained, the consequences can be disastrous – not just to the farmer, but to the farm business and the farm household too.

There are several signals which, if seen over a prolonged period, may indicate poor mental health and all within the farming community should look out for. These include eating more or less than normal, mood swings, lack of concentration, feeling tense or useless, poor sleep patterns, fatigue and forgetfulness.

Poor mental health can also lead to physical symptoms such as back pain, indigestion, irritable bowel syndrome, psoriasis and migraines.

### Help is at hand

If you have identified any of these signals and they are not normal behaviour, the next step is to talk to someone. You can talk to your friends and family, other farmers, your neighbour or your GP. Or, if you are worried about talking to those closest to you, for fear of becoming a burden, you can talk to FCN.

Our confidential national helpline is open every day of the year from 7am-11pm and the majority of our volunteers are from a farming background. They can help farmers find the support they need and “walk with them” on their journey to a more positive place in their lives.

On World Suicide Prevention Day, I would encourage all within the farming community to take a step back, look at themselves and those closest to them and think about whether they might need help. Who knows – you may end up saving someone’s life.

See more information on The Farming Community Network website

If you are experiencing suicidal feelings or have been bereaved by suicide, call the FCN helpline on 03000 111999 or email [help@fcn.org.uk](mailto:help@fcn.org.uk)

### JOURNAL : Farmers Weekly

This month, I’ve been honoured with an invitation to speak at the fourth Women in Dairy Conference.

They might regret this, as I’ll have a nine-week-old baby in tow who I’m hoping will sleep during my presentation. Most farmers are used to juggling children with work, so hopefully they will understand.

Women in Dairy was set up by the Royal Association of British Dairy Farmers and AHDB Dairy in 2015. In some ways it is surprising that such an initiative hadn’t been set up sooner. Ladies in Pigs has been around for over 20 years, and Ladies in Beef since 2011.

See also: Fairer sex brings a touch of class to upland sheep farm

However, both organisations focus on promoting the product to consumers. Women in Dairy is different, in that its groups across the country are designed to develop the people rather than the market, with the aim to “connect, share and inspire”.

I have been regularly attending discussion groups since I started farming five years ago, so I was surprised when I went to my first Women in Dairy meeting to find that there were people there who had never been to anything like it.

### Lack of provision

This seemed to be partly an issue of confidence, but also lack of provision. Other events are male-dominated, despite Defra stats which show that the number of women running farms jumped by nearly 10% to more than 25,000 between 2010 and 2013, not including female workers and farmers’ wives/partners.

It's something of a cliché that women are better at jobs like calf rearing because they have better attention to detail and are more nurturing than men. But that does a disservice to the other things they excel at, from driving machinery to managing staff, financial planning and more.

I've reared calves successfully on our farm, but I wouldn't describe myself as a natural (my kitchen would look like a bombsite without my cleaner), and I must admit I'm more comfortable at my laptop.

I'm lucky that farming gives me the opportunity to do both. As farms get bigger, the range of roles required becomes even more diverse, and there is more room than ever before for women to showcase their talents. It's therefore refreshing that Women in Dairy meetings cover a wide range of topics from on-farm practical areas to strategic business skills.

### Breaking down barriers

The theme of this year's conference is "breaking barriers", something that really resonates with me as a new entrant without a farming background. The biggest barrier I have faced is finding opportunities to invest and grow a business rather than just be an employee, but this affects men and women equally.

Ironically, I would probably have faced more barriers in my previous career in publishing, where most of the workforce is female, but a disproportionate number of commissioning editors and directors are men.

I may have been entitled to maternity leave and pay, but I wouldn't have had anywhere near the flexibility my life on the farm gives me to be available for my children whilst retaining an important role in the business – all while living in a beautiful part of the countryside rather than a dingy flat in London.

Despite the masculine image of farming, there are more opportunities than ever for women, which is why Women in Dairy is such an important initiative.

### JOURNAL : Farmers Weekly

A must-attend for the Buckinghamshire farming community, Bucks County Show is a one-day event that attracts thousands of visitors from the area.

This year the sun shone on the show, based just outside Aylesbury, which blends family fun and big main ring attractions with a focus on farming and rural life.

There was music in the main ring from the ever-impressive Royal Artillery Band.

### See also: Top 5 must sees at UK Dairy Day

With around 100 cattle and sheep classes, there was an outstanding display of livestock. 29-month-old Dinmore macaroon won the Limousin breed championship and overall continental title. Sired by Diamant, she is the only Limousin on Andrew and Emma Bishop's farm near Milton Keynes.

One of the special things about local country shows is seeing young people learn more about agriculture. Young handlers George (12) and Gabriella (9) Page were exhibiting alongside dad Frank from Elkington, Northamptonshire, in the commercial beef championship.

Their homebred Limousin-cross steer Gogglebox took the title.

There were plenty of big shiny machines for ogling over and some older classics on display too.

### See also: Flindt on Friday - Here's why I'll miss our old tractor

The hot summer weather didn't seem to have hindered the local gardeners' success. The Home and Garden tent was full of impressive competition entries in flower and vegetable growing, baking, photography and flower arranging, to name a few.

The 2018 award for the best trade stand went to agricultural merchant Denne Engineering, with their feeder tower and trough water feature.

But when it came to staff uniforms, that unofficial award had to go to the Tuckett Farm Services team with third generation Reginald Lewis sporting some rather on-brand dungarees.

The large number of equine classes include qualifiers for the Horse of the Year Show and the Royal international Horse Show.

And horses were jumping through rings of fire in the main ring when the Metropolitan Police Activity Ride took to the stage.

JOURNAL : Farmers Weekly

The National Pig Association (NPA) has called a watchdog's decision to ban a vegan campaigning charity's advert a "fantastic result" for the industry.

The Advertising Standards Authority (ASA) announced its ruling on Wednesday (5 September) after investigating three issues raised about Viva!'s cinema advert.

The ad, aired in December 2017, featured a pig called Hope running around in a field with a voiceover stating: "This is her dance of joy for being outdoors for the first time".

See also: Video: FW columnist Josh Dowbiggin takes on hardcore vegan

Further footage showed individual or small groups of pigs indoors behind the bars of a pen and a number of pigs in a very crowded pen, with the voiceover stating: "It's something most pigs will never know as 90% are factory farmed".

The NPA and several members of the public challenged the advert and reported it to the ASA.

#### Intensive farming

The first issue raised was that the ad featured farming methods that were no longer allowed in the UK, though Viva! said the intensive farming footage shown was all filmed on UK farms.

NPA chief executive Zoe Davies said she complained to the ASA because the British pig industry refuses to ignore groups making misleading and damaging claims about pig production.

This complaint was upheld by the ASA, which concluded the ad was misleading and said: "Consumers would interpret the ad to mean that pigs that were intensively or factory farmed in the UK and would be kept in conditions similar to those shown in the indoor footage that appeared in the ad most of the time".

#### Factory farming

The second issue was about the "misleading and unsubstantiated" claim that 90% of pigs are factory farmed.

Viva! responded: "If anything, the 90% figure was underestimated".

However, the NPA said Viva! appeared to be confused about the figures.

"With 40% of breeding sows kept outdoors, and therefore having piglets outdoors, we simply do not see how anyone can suggest more than 90% of pigs have never been outside," explained Dr Davies.

"Equally importantly, it is wrong to say pigs kept inside for some or all of their lives are 'factory farmed'. That gives a false impression of UK pig production, which is unique among the major pig-producing countries in its diversity of systems."

## En route to World Routes

This complaint was also upheld by the ASA, which said Viva! had not substantiated the claim and the ad was likely to mislead.

## Advert ban

The third issue stated the ad contained content that was likely to cause distress without justifiable reason, but this complaint was not upheld by the ASA.

The authority concluded that the ad must not appear again in the form complained of, and Viva! must ensure its ads do not mislead about, for example, how animals would be accommodated in intensive farming environments.

Dr Davies added: "We hope this ruling will discourage others from attempting this kind of dishonest campaigning in future".

## JOURNAL : Farmers Weekly

The latest estimates put average pig production costs at 150p/kg for April to June, just 1p behind the EU-spec Average Pigs Price for the quarter, according to AHDB Pork.

The rising cost of feed as a result this summer's drought has pushed up production costs by 9p/kg compared with the the same quarter last year, while pig prices have fallen by 12p/kg over the same period.

See also: 5 steps to reduce antibiotics use in your pig herd

Despite prices picking up by 2p/kg compared with the first quarter of 2018, a 5p/kg increase in production costs has more than wiped out any benefit to producers' bottom lines.

<https://infogram.com/cop-pigs-1h9j6qw79gww6gz?live>

Feed accounts for about 60% of pig production costs, with higher finishing feed costs in this quarter making a particular difference.

As a result, many producers have chosen not to use as much finishing feed in the 12 months to June 2018, with the knock-on effect being lower daily liveweight gains, according to the levy board.

<https://infogram.com/contributions-to-narrowing-margins-1h0n259oq8dl4pe?live>

The latest Agrosoft (pig software) data for the 12 months to June this year shows that feeder pigs have been fed more and taken to higher weights, leading to a longer spell in the rearing unit.

These longer times have led to a reduction in the number of pigs that can pass through a unit in a year, further increasing costs per pig.

As a consequence, the average daily liveweight gain and feed conversion ratio for the UK rearing herd have both worsened.

These factors, combined with a high post-weaning mortality rate as a result of the prolonged wet winter, have put a further burden on production costs.

## Outlook

Feed prices are expected to continue to rise, making it less likely that the average business will stay in the black.

The levy board did not anticipate any major gains in the pig price as global production levels have marched upwards.

Global markets remained volatile as the Sino-US trade war escalates and African Swine Flu spreads across China.

Producers can expect losses in the coming months as margins are already so narrow, according to AHDB Pork, but it stresses that this comes on the back of almost 60% of operators being profitable over the past decade.

JOURNAL : Farmers Weekly

Rural housing opportunities could expand through some of the measures in the government's National Planning Policy Framework (NPPF), released earlier this summer, says Ros Trotman, associate solicitor at Thrings.

As well as enabling more small and medium-scale housing developments, the NPPF includes a new planning exception for the creation of an isolated new dwelling in [RT1] countryside, where this is created by the subdivision of an existing dwelling, such as a large farmhouse.

See also: How mediation can help resolve farm planning disputes

The document does not specify the number of new dwellings allowed by subdivision. However, conditions could be attached to the permission, for example tying the new dwelling to the farm in planning terms, so that it cannot be sold away from the holding.

Other planning exceptions for new houses on farms under the old national policy persist, including where:

There is an essential need for a rural worker dwelling (including those taking a majority control of a farm business)

The new dwelling can be shown to be the most viable use of a heritage asset or would be appropriate enabling development to secure the future of heritage assets

A redundant or disused building is used for housing and would enhance the immediate setting

The design is of exceptional quality

The NPPF also requires local authorities to ensure that 10% of all their housing allocations are on sites of one hectare or less. One hectare would accommodate around 30 new dwellings.

Planning authorities must also continue to support small affordable housing developments in rural locations where housing would not normally be permitted (usually up to 10 new dwellings), with discretion to include some homes for open-market sale on such sites.

Affordable housing is managed by a local authority or housing association and is available to people eligible for housing assistance and who have a connection to the local area.

The NPPF also introduces new entry-level exception sites, aimed at first-time buyers and tenants. These will be adjacent to existing settlements and must be no larger than one hectare and represent no more than 5% of the size of the existing settlement.

Planning conference

Ros Trotman and other planning experts will be speaking at the British Institute of Agricultural Consultants' rural planning conference on 11 October at the Royal Berkshire Conference Centre, Reading.

For more information and to book for Delivering Rural Development in a Complex and Ever-changing Planning System, visit the British Institute of Agricultural Consultants' website.

JOURNAL : Farmers Weekly

Police officers from across central and eastern England are joining forces to tackle the **seasonal** blight of illegal hare coursing on farms.

## En route to World Routes

With harvest now complete, Suffolk, Norfolk, Cambridgeshire, Bedfordshire, Hertfordshire and Essex police forces are working in partnership with the NFU, Natural England and the CLA to tackle this criminal activity.

Hare coursing, which has been banned for more than a decade, sees greyhounds and other “sight” hounds, such as lurchers, chasing a hare by sight, not scent.

See also: Hare coursing – what you need to know if your farm is targeted

Groups of up to 50 people exchange large bets on the outcome, which is determined by the first dog to catch and “turn” the hare, or kill it.

<https://twitter.com/NaturalEngland/status/1035182505773678593>

Operation Galileo is targeting hare coursing throughout the east of England. This is the first “season” that all six forces in the east are co-operating in relation to hare coursing operations.

Special days of action are planned, which involve wildlife crime officers carrying out proactive patrols along with other officers who will receive special local briefings and pay attention to hotspot areas within their districts, dealing robustly with offenders.

[https://twitter.com/beds\\_s\\_insp1185/status/1035946141643427843](https://twitter.com/beds_s_insp1185/status/1035946141643427843)

The aim of these operations is to make the countryside a no-go area for these criminals.

Rural sergeant for Hertfordshire Jamie Bartlett said: “Those engaged in this illegal act trespass on private land, damaging crops and property, as well as intimidating and showing violence towards those who challenge their presence.

“It can also be very distressing for members of the public to witness hare coursing.

“We also believe that many of those engaged in hare coursing also commit other offences against the rural community, such as theft of farm machinery, diesel, tools and off-road vehicles.”

NFU seeks tougher penalties

Hertfordshire NFU county advisor in Hertfordshire Rosalind David said: “As well as the illegal killing of wildlife, coursers cause damage to crops, hedges and gates and they are prepared to use violence and intimidation against farmers if challenged.

“Incidents of hare coursing can only be reduced where there is concerted action by farmers, the police, prosecutors and the courts. This includes sentences that reflect the seriousness of the crime, with steps such as seizing the dogs used by coursers and crushing vehicles.”

If you think you are witnessing hare coursing in progress call 999 immediately, or report other information via the non-emergency number 101. Alternatively, contact Crimestoppers anonymously on 0800 555 111.

JOURNAL : Farmers Weekly

Free business advice is on offer for up to 300 farmers over the next 12 months.

The Prince’s Resilience Fund, now in its third year, is offering one-to-one business advice and group workshops for dairy, beef and sheep farmers at 15 locations around the UK.

Applications are opening tomorrow (3 September) and are allocated on a first come, first served basis for up to 20 farming families in each of the locations.

See also: £20m farm productivity and sustainability funding announced

## En route to World Routes

The aim is to help farming families make changes that will improve their profitability. The service will include an on-farm business health check.

Where is support available?

Groups are being set up in 15 locations with farms within a 20-mile radius encouraged to apply.

However, farmers working outside that radius who are willing to travel further to attend meetings will not be barred from applying.

Most of the locations are different to those in previous years, but the scheme is returning to some areas, such as Whitby, where there was a waiting list of farmers wishing to participate last year.

The locations are:

England

Louth, Lincolnshire

Whitby, North Yorkshire

St Austell, Cornwall

Isles of Scilly

West Worcestershire

Yorkshire Dales

North Western Devon

Exmoor, Devon

Cumbria

Scotland

Isle of Skye

Cairngorms

Wales

Anglesey

Brecon

Northern Ireland

Bainbridge, Co. Down

Garvagh, Co. Londonderry

Workshops include advice on how to analyse finances, conduct business planning and manage costs.

They will run through the winter between November and March. There will then be a break during the spring, with one-to-one advice sessions taking place over the summer before final workshop sessions in September 2019.

## En route to World Routes

This year there will also be a focus on helping farmers prepare for life after Brexit with workshops on environmental recording and benchmarking.

This is in anticipation of the new British subsidy system, expected to start in 2022, which will reward farmers for good environmental practices, rather than an area-based payment.

The support scheme, which costs £450,000/year to deliver is part of the annual £1.2m in grant funding provided by the Prince's Countryside Fund, which was set up by Prince Charles in 2010.

More information, including details on how to apply for the scheme is available on the Prince's Countryside Fund website. The deadline for applications is 15 October.

## JOURNAL : Farmers Weekly

Rising bean prices are bringing some relief to beleaguered pulse growers after a difficult summer.

Producers have been dealt heavy blows this season with 25% lower yields and increased pest damage.

However, prices have risen by £12/tonne since the beginning of August to around £190/tonne, depending on location, putting them some 22% higher than last year.

The rises come from a combination of reduced crop availability, strong demand from feed compounders and bean prices tracking the wheat futures market upwards.

See also: Winter wheat v spring beans: Costs compared

More bean crops could also qualify for a human-grade premium after overseas purchasers lowered quality standards for human consumption.

Pulse trade organisation Bepa reports that interest is being shown in crops with more than double the normal level of acceptable pest damage.

The summer heatwave, recently confirmed by the Met Office as the hottest on record, also caused substantial increases in discolouration levels.

Bepa president Franek Smith said that with merchants reporting 95% of samples are showing damage levels of over 15%, buyers are showing interest in shipments with as much as 10% bruchid beetle damage, some 5% above normal rejection levels.

But Andrew Little, pulse and oilseed trader with co-operative Openfield, said bruchid damage was so significant that many samples were still unlikely to qualify for human consumption.

## Majority of crop now harvested

Around 80% of the UK crop is now harvested and he said that he anticipates significantly more of the crop being downgraded, meaning there will be very few boatloads being exported this year.

He forecasts a maximum export of 50,000 tonnes this season, traded in individual containers rather than a whole ship.

However, as the total UK crop is smaller, although a greater proportion of the crop than average is likely to fall into the feed market, Bepa forecasts that the total feed bean availability will be approximately the same at 500,000 tonnes.

And prices are likely to remain upbeat thanks to the demand being well supported by feed mills who have seen production levels soar as livestock producers stepped up feeding over the summer to compensate for the drought.



Could prices rise higher?

With many rival feeds available to compounders the market for pulses is difficult to predict as manufacturers stay tight-lipped about where the tipping point is between them taking one commodity over another.

Owen Cligg, United Oilseeds trading manager, said that a large soya crop in the US is overshadowing the market but that limited crushing capacity in Europe will limit its ability to drive down feed prices.

Feed beans generally trade at a £30-40/tonne premium to the wheat futures market so if that goes up it could rise further, he added.

JOURNAL : Farmers Weekly

Burning farm plastics under exemption will no longer be an option on farms in Scotland from next year.

The Scottish Environment Protection Agency (SEPA) said it would remove 2013 environmental exemptions which allow farmers to continue burning plastics.

The move will affect silage wrap, crop covers, fertiliser bags and containers.

See also: Plastic pollution focuses farms on correct treatment of waste

It follows talks between SEPA, Zero Waste Scotland and NFU Scotland and the new rules will feature ongoing dialogue with farmers and crofters over the coming months.

Gary Walker, SEPA waste and landfill tax manager, said: "Ending the exemption for burning farm plastics is an important next step in stemming the plastic tide by reducing the environmental impacts of farm waste.

"By recycling, farmers are once more doing their bit for the environment, supporting their local community and helping ensure that plastic materials are kept in use for as long as possible by maximising the value that can be extracted from them."

NFU Scotland vice-president Martin Kennedy said: "Recognising that the spotlight is focused on plastics, it is incumbent on all stakeholders that we help farmers and crofters do the right thing when dealing with the forthcoming ban on burning farm plastics."

The Waste Management (England and Wales) Regulations 2006 (2005 in Scotland) ended the practice of burning or burying farm plastic, including baler twine, silage film, spray cans, fertiliser and seed bags.

Waste plastic can only be stored on a farm for less than 12 months.

SEPA, NFU Scotland and Zero Waste Scotland have developed a simple set of resources for Scottish farmers, including a list of Scottish recyclers who stand ready to help farmers get plastic waste sorted. Further information is available from the SEPA website.

JOURNAL : Farmers Weekly

Hundreds of landowners and farmers affected by a section of the East West Rail project between Bicester and Oxford have just seven days left to object to the route and proposed works associated with it.

Some owners face compulsory purchase under the scheme, others will have land taken temporarily to accommodate works associated with the project, while others are being asked to grant rights of way across their land.

## En route to World Routes

A further number will see their land and property values fall because of the project, with some also experiencing damage to their business income and profits, say advisors.

The East West Rail project is being built progressively between Cambridge and Oxford, mainly upgrading established lines but also including the reinstatement of some disused sections.

Phase 2 includes the reinstatement of a section between Bletchley and Claydon Junction.

"The land take is not huge because this is [largely] an existing line," said Tim Broomhead of property consultant Knight Frank's Bicester office. "Quite a lot will be for access and temporary uses but landowners can object to this and suggest alternatives."

See also: National planning policy proposals pose risks to farmland

Some of the work involving land take is to replace level crossings with bridges, while other landowners are being asked for access over their land to facilitate work associated with the line.

Separate to any compulsory moves, deals have been done privately to acquire land to mitigate the environmental impact of the line upgrade.

Those whose land and property is not affected by compulsory purchase can also object by the 7 September deadline. However they will have to wait until the rail line has been up and running for a year until they can apply for compensation for what is known as 'injurious affection', covering loss of property value because of the line and its associated works.

If the Transport and Works Act Order (TWAo) is granted then major works could begin next year.

How to respond

Comments on and objections to the TWAo application can be sent until 7 September 2018 to the Department for Transport at [transportandworksact@dft.gov.uk](mailto:transportandworksact@dft.gov.uk)

The Secretary of State may then decide to hold a public inquiry, a hearing or an exchange of written representations between relevant parties. These processes would be led by an independent inspector who will make recommendations to the Secretary of State, who then makes a decision on whether phase 2 can begin.

What is East West Rail?

East West Rail phase 2 is part of the wider East West Rail scheme to connect Cambridge to Oxford.

The Western Section (phase 1), which operates services between Oxford and Bicester, was completed in December 2016.

The Western Section (phase 2) proposes to extend services from Oxford to Bedford and Milton Keynes to Aylesbury.

Network Rail has applied to the Secretary of State for Transport for a TWAo to construct the second phase of the project between Bicester and Bedford.

Documents related to the TWAo are available at [www.networkrail.co.uk/east-west-rail](http://www.networkrail.co.uk/east-west-rail), while paper copies can be viewed at several locations in the affected area, including Bicester, Winslow, Milton Keynes and Bedford libraries, Aylesbury Study Centre and Winslow library

The Central Section (phase 3) will see the full reconnection from Cambridge to Oxford, and the proposal is currently in development.

JOURNAL : Farmers Weekly

## En route to World Routes

A remote controlled tracked logging winch is now available from Spaldings, following the company's appointment as national dealer in the UK and Ireland for Pfanzelt forestry machinery.

It is powered by a 35hp diesel engine, has hydrostatic drive and comes with the logging winch as standard, but it can be switched for a optional 1.2m wide flail mower.

See also: How, when and why to mole drain

Weighing 1,400kg and sitting 1.1m wide means the Fr50 can be towed by 4x4 and a trailer to site, where the track spacing can then be widened hydraulically by up to 400mm for a steadier footprint on steep slopes.

According to Spaldings, it is ideal for woodland vegetation control or to provide tension for controlled direction felling where trees have to be cut down in a confined location.

Pfanzelt is planning a stump grinder attachment in the future, with current retail price for the Moritz Fr50 base vehicle set at £44,500.

JOURNAL : Farmers Weekly

Header maker Kemper has developed a chopping system that fits beneath a regular maize header to cut stubbles tight to the ground.

The Stalkbuster is designed to obliterate the habitat of the corn stalk borer – an insect which can wreck maize yields and makes its home in old cigar-shaped maize stalks – by chopping and mulching in one pass, so there's no need to follow the harvesting job with a mower or mulcher.

Central to the system is a row of rotating flattened knives that spin at 1,700rpm, pulverising the stubble just above the ground so that the remains rot quickly after cutting.

See also: High-hour Horsepower: 26-year-old forager still going strong in Herefordshire

Kemper reckons that up to 40% of all corn stalks are driven over by the chopper and the carting tractors and trailers, so cutting them before that happens makes sure they're destroyed, particularly as the corn borer can still survive in flattened stubbles.

There are extra benefits for crops drilled after maize, says Kemper, as the residues within the stalk rot down better, so a following crop of wheat should have less exposure to diseases such as fusarium.

The rotating blades – each with a 73cm diameter – are suspended independently under the header and smash the stubble to the floor in four to five strokes.

Because all of the stubble is standing upright at the time of cutting, the knives sap surprisingly little power from the central drive shaft of the header. Each row needs about 4hp, so an eight-pronged header draws just 32hp, far less than the 200hp needed for a 6m wide mulching machine.

Cutting height

Pneumatic pressure cylinders help keep a constant cutting height maintained across the field regardless of ground conditions. Kemper says it tried using compression springs, but found that they pressed too deep in sandy soils and were too weak to make an impact on a clay land.

The advantage of pneumatic cylinders is that the pressure can be controlled. And, when the forage harvester goes in reverse, the cylinders collapse and the trailing soil sampling units are lifted so that they don't bury into the ground and get damaged.

Contractors also have the option of raising the Stalkbuster out of work if customers don't want the stubble chopped to save costs.

## Availability

Several customers have been testing the Stalkbuster this year, with production set to start properly for next season. Only an eight-row version is available initially, which is married to the 6m 460 Plus corn head with large drums.

A standard 460 Plus corn header costs about £71,000, and the Stalkbuster adds roughly £20,000.

Although that is a significant investment, Kemper says it avoids the need for a secondary pass with a mulcher after the forager and so cuts out extra diesel and labour costs associated with mulching.

Maize header specs

Make Kemper

Model 460 Plus (8 rows)

Working width 6m

Weight 3,100 kg (incl. 350kg Stalkbuster)

Price £71,000 (approx)

Stalkbuster power requirement 32hp

Stalkbuster price £18,000 to £22,000 (approx)

What is a corn stalk borer?

The corn spear borer or common stalk borer lays its eggs on the maize plant at the end of June. After 10 days the eggs are released and the caterpillars chew their way down the stem, causing the plant to become severely weakened and all but stopping cob production.

The plant can also buckle and cause fungal infestations in the cob. A heavily affected crop can give a yield loss of up to 40%. The caterpillar then overwinters in the chopped stalk pipe just above the ground, after which it pupates into a butterfly in the spring and the cycle repeats itself.

JOURNAL : Farmers Weekly

A “barbaric” attack on a farm in Cambridgeshire has left three fallow deer dead and a large stack of straw destroyed.

Charlie Rand was alerted to the fire in his field in Fowlmere in a phone call from his brother at about 3am on Sunday (2 September).

When Mr Rand went to investigate, he found his biggest straw stack, approximately 1500t, was well alight. He was also told that a vehicle’s headlights were seen driving around a neighbouring field.

See also: Video: Farmer shares lessons learnt fighting huge crop fire

In daylight, Mr Rand saw tyre tracks around the field and the stack, and then found three dead deer which had been run over.

“I couldn’t really comprehend what I was seeing. It’s just barbaric,” said Mr Rand, who has an arable enterprise, beef unit and straw baling business.

“It’s completely mindless, doesn’t achieve anything, and they have just done it for fun.

## En route to World Routes

"It's demoralising and disheartening to lose this straw after all our hard work, and it's going to cost us an absolute fortune."

Police and the fire service attended the incident, but Mr Rand, who has had straw stacks set alight before, does not expect anyone will face prosecution.

Cambridgeshire Constabulary has told Mr Rand that the case has been filed, as there were no lines of enquiry.

"It just makes me feel helpless, because it seems to be getting worse and happening every year but nothing comes of it," Mr Rand said.

"It means we have to barricade our farm like Fort Knox and we're going to dig trenches around the whole property – but it's a sad state of affairs that it has come to this."

Officers have confirmed that they were called to the scene at 2.11am and believe the fire was started deliberately.

Anyone with information about this incident should call 101 and quote incident number 39 of 2 September, or visit [www.cambs.police.uk/report](http://www.cambs.police.uk/report).

Alternatively, Crimestoppers can be contacted anonymously on 0800 555111 or via [www.crimestoppers-uk.org](http://www.crimestoppers-uk.org).

## JOURNAL : Farmers Weekly

A Shropshire farmer has successfully switched from metaldehyde to ferric phosphate slug pellets without compromising slug control, as he looks to cut the risk of water pollution.

Doug McCowan farms 456ha of arable land at Woodlands Farm on a mix of soils, ranging from very sandy to medium to heavy loam.

More importantly from a water aspect, Back Brooks flows through part of the farm which eventually feeds into the Aqualate Mere nature reserve, the largest natural lake in the West Midlands.

See also: Video: Ultimate guide to good slug pellet application

He was, therefore, already interested in the environment and attended a group meeting at the nature reserve aimed at stopping the mere silting up.

See expert tips on getting the most from ferric phosphate

While at the meeting, Mr McCowan heard from another farmer taking part in the Severn Trent Farm to Tap scheme and this convinced him to join in.

It wasn't until the first winter in the scheme that he realised the risk to water from metaldehyde slug pellets.

Woodlands Farm, Shifnal

456ha of all arable land

Milling and feed wheat, oilseed rape, feed barley, seed beans for Wynnstay and potatoes for McCain.

Applies sludge cake in rotation to replace phosphate and apply potash variably.

"I used a mixture of ferric phosphate and metaldehyde and there were two spikes in metaldehyde levels in water."

The first spike occurred in October after heavy rain and the second was in December. "This was long after when you would expect to see the chemical in water," he recalls.

## En route to World Routes

"I was horrified to see how easy it was for metaldehyde to get in water. If we want to keep them, then we need to look after them and do what we can to reduce the risk of them reaching water."

In the second year, he used just ferric phosphate and there were no spikes seen, resulting in him receiving a bonus (see below).

Making the switch has also simplified slug pellet applications, with just one product being used. Ferric phosphate was already being applied to the metaldehyde-free buffer zones 10m from the field boundary.

When comparing performance of metaldehyde and ferric phosphate – he has seen no difference.

### Integrated approach

Mr McCowan takes an integrated approach, using cultural controls and only using pellets on his wheat, rape and potato crops when needed.

The cultural measures include cultivating early to help encourage slug eggs to dry out and good straw management. For example, he chops and spreads rape straw to minimise areas harbouring slugs.

He also rolls fields after drilling, as slugs don't like firm seed-beds.

### Top tips for getting the most from ferric phosphate

Geoffrey Bastard, Certis' regional technical specialist, outlines his top six tips for those looking to maximise their ferric phosphate applications.

#### 1 Field history

Start by thinking about the field history, the previous crop, soil type and weather conditions.

These all need considering on a field-by-field basis before doing anything else.

For example, this year's dry and warm conditions mean that on very light ground slug populations may be non-existent, but on heavier land that's had rainfall, slug populations will be active.

Be aware that slugs can quickly repopulate and thrive at the first onset of rainfall.

Taking a total field perspective will help to develop a holistic approach and maximise slug control.

#### 2 Assess slug pressure

Ferric phosphate should always be used as part of an integrated pest management approach and monitoring for slug pressure before application is vital.

To make sure you get the most out of applications and apply at the right time, monitor slug numbers using a slug mat or a simple piece of plastic with layers mash underneath. Place traps overnight and check early in the morning when slugs are usually active.

For oilseed rape crops, the treatment threshold is four or more slugs to justify slug pellet applications.

#### 3 Pellet choice

It's important to choose a high-quality ferric phosphate pellet that spreads well and is durable.

The four main characteristics that come together to form a good pellet include size, which should be between 2mm and 3mm, uniform shape, crush strength over 3kg and a density over 0.7kg/litre.

## En route to World Routes

The aim is to have a pellet that is uniform, durable, rainfast and has anti-moulding properties. This all means the pellet will spread well and survive in the field without leaching, even after rainfall.

### 4 Calibration

Ensure that pelleters are calibrated for ferric phosphate pellets with a maximum width of 24m to ensure good coverage.

If using both ferric phosphate and metaldehyde on-farm, ensure that both the setting for spread pattern and rate are correctly adjusted between the two products.

To achieve this, carry out a calibration test on both products and ensure that the operator is trained in the different spread patterns, dose rates and how to adjust settings accordingly.

Finally ensure that baiting points and pellet dose rate are relevant to the slug pressure in each individual field.

### 5 Application

Application of ferric phosphate should only occur once thresholds have been reached.

The active can be used on all arable crops and should be applied with a maximum dose of 7kg/ha. In high-pressure cases, up to four applications of can be made as long as the maximum total dose does not exceed 28kg/ha/crop.

### 6 Be aware of the mode of action

Although both ferric phosphate and metaldehyde essentially do the same thing, kill slugs, their mode of action differs.

With metaldehyde, growers are used to seeing dead slugs and slime trails on the surface, but with ferric phosphate slugs migrate underground to die.

Therefore, when assessing treatment efficacy of ferric phosphate, monitor the crop for damage rather than looking for dead slugs.

### How the Severn Trent Farm to Tap scheme works

Farmers in certain catchments are eligible to join the scheme, which offers farmers payments to reduce metaldehyde levels in water by switching to ferric phosphate.

In the scheme, farmers can earn up to £8/ha hectare and there is a further bonus if water levels are less than 0.1ppb, with water tested fortnightly from September to early December.

Doug McCowan is about to go into his third autumn in the scheme and last year, his water levels were below 0.1ppb, triggering the bonus.

“All in all, it was just over £1,000, which covered the cost of 1.5 applications,” he says.

### JOURNAL : Farmers Weekly

Buyers of UK land are used to having a house and buildings included on the sales particulars.

A hotel or beach, however, is less common – but it does happen.

Farmers Weekly has been looking at some of the more unusual offerings that have recently sold or are currently on the market.

See also: Summer land launches feed much-needed supply in Scotland

## En route to World Routes

Agents often speak of a “flight to quality” when describing buyers who invest in best-in-class.

It takes on a different meaning in the case of Langar Lodge in Leicestershire, which offers a World War II airfield as part of the sale.

No actual flights will be landing however. The 1942 airfield’s 150 acres of runway and perimeter tracks plus hangars now form a portfolio of commercial lets.

Winter cropping covers the 337 acres of clay arable land, which is let on a short-term farm business tenancy.

It attracts a combined annual income of £103,000 and joint agents Berrys and Shouler & Son are inviting offers in the region of £3.25m.

Farming families are always a hospitable bunch when it comes to welcoming visitors – so are these skills transferable?

The sale of the Kildrummy Estate by Savills in Aberdeenshire could offer the perfect mix at offers over £9.5m.

The 16-bedroom Kildrummy Castle Hotel is included in the 5,600-acre mixed estate, of which about 2,000 acres is in crops and livestock.

See also: Why preparation is key for a fast farm sale

Nearby, Galbraith is offering a solution for holiday-starved farming families.

No excuses for a lack of seaside breaks here – the Kinloch Estate’s 572 acres of farmland comes with its own stretch of sandy beach near Peterhead.

Just add sunshine.

There is also shooting, a lucrative biomass boiler and a loch included at offers over £2.885m.

Sticking with a coastal theme, Fisher German demonstrated the appetite for amenity woodland with the sale of Beech Cliffe earlier this year.

The sale of 10 acres of silver birch, beech and sycamore next to the M6 at Stoke-on-Trent also included a let sawmilling operation and a five-acre paddock in the £195,000 guide price.

And if farming isn’t paying but you still can’t ignore that farmer’s compulsion to own land then here’s an example of how to think outside the box.

Strutt & Parker sold the Dungeness Estate on Kent’s Romney Marshes in 2016 in excess of its £1.5m guide price.

It had 450 acres of open shingle with frontage to the English Channel and long-term residential leasehold properties.

A significant income exceeding £130,000/year in shingle extraction and commercial fishing agreements were an attractive addition for the buyer.

JOURNAL : Farmers Weekly

Tributes are being paid to organic farming campaigner and Soil Association policy director Lord Peter Melchett, who has died aged 71.

The Norfolk farmer and Labour peer – who served as a minister in the Wilson and Callaghan governments during the 1970s – was a veteran activist.

See also: Tap into demand for ‘quality’, says Peter Melchett



## En route to World Routes

After leaving politics, he was appointed to the board of Greenpeace UK in 1985, becoming its executive director in 1989.

A vociferous opponent of genetic modification, Lord Melchett was arrested in 1999 when he was among 28 protestors who cut down and removed a GM crop trial in Norfolk.

He spent two nights in custody before being released on bail. All 28 protestors were acquitted of theft and criminal damage when the case came to court in 2000.

Policy director at the Soil Association since 2002, Lord Melchett led numerous campaigns while also being managing director of his family's 360ha farm at Ringstead, near Hunstanton in Norfolk.

These included successfully lobbying for government support for organic farmers – and the association's ongoing campaign against glyphosate.

The Soil Association said he was a true campaigner who would be widely missed.

Thanks, @vickihird for your kind words, Peter was a champion of the environment and organic movement and a true campaigner all his days. He will be greatly missed by all of us.

Soil Association (@SoilAssociation) August 31, 2018

Fellow environmentalist and former Friends of the Earth director Jonathan Porritt was among those to pay tribute on social media.

Heard earlier today of the death of Peter Melchett - feeling so sad. Peter was a consummate campaigner (at Greenpeace and Soil Association), a wise and compassionate advocate for everything that really matters, and a true friend.

Jonathon Porritt (@jonathonporritt) August 30, 2018

MP Zac Goldsmith said Lord Melchett would be hugely missed.

Very sad to hear about the death of Peter Melchett. He was a brave, brilliant and committed environmental campaigner, and a good friend. He will be hugely missed.

Zac Goldsmith (@ZacGoldsmith) August 30, 2018

Green MEP Molly Scott Cato, who is a member of the European Parliament's Agriculture Committee, described Lord Melchett as a tireless campaigner.

"His work with the Soil Association helped establish its international reputation as the leading body on organic farming principles.

"By pushing for the highest possible standards of animal welfare and environmental and wildlife protection his life's work will stand the test of time."

JOURNAL : Farmers Weekly

English livestock union representatives are uniting in an attempt to convince sceptical farmers of the benefits of sharing more data with a new traceability system.

As the winter and spring discussion group and conference season gears up, a co-ordinated campaign of action will attempt to convince farmers that uniting online movement systems and adding new features will help fight disease and slash the need for mountains of paper documentation.

See also: What's In Your Livestock Shed at high-tech Exmoor farm

## En route to World Routes

The first parts of the new system are likely to launch no sooner than the end of 2019 as work on the software, to be done in partnership between Defra and the AHDB, has not yet begun.

The new system will definitely be used for the notification of movements of livestock on and off holdings, which is required by law, but is also expected to add a significant number of other functions over time such as EID cattle tagging and the simplified sharing of medicine and health data..

Defra has agreed in principle to work on the statutory side of the project, while the AHDB will work on the remainder, meaning that levy payers are likely to be part-funding future developments.

A final, more formal agreement between them is likely to be signed later this year.

### Cross-industry consensus

Defra and AHDB are two components of the Traceability Design User Group (TDUG), which also includes representatives of all livestock farmer groups, auctioneers and meat processors.

NFU chief livestock advisor John Royle, part of TDUG, said the programme "is the gateway to delivering productivity improvements and enabling a new domestic support policy for the livestock sector".

TDUG has been meeting twice-monthly since March 2017 and has finally come to complete agreement on the ambitions of the project but is yet to start serious work on putting them into practice, meaning concrete details on what the system will be like for users are so far frustratingly scant.

Work on separate, but compatible multi-species systems is already underway in Scotland and Northern Ireland, and a spokesperson for Welsh rural affairs cabinet secretary Lesley Griffiths said a decision would be made shortly on whether Wales would join the English programme or develop its own.

### Persuasion needed

TDUG members acknowledge they have a long way to go to convince some farmers of the benefits of a system that is being designed with the potential to include more production data, but are determined to sell the project on its merits rather than force through changes.

This could include the ability to attach medicine records or TB data to animal movement records in order to improve the confidence of farmer and food chain buyers.

Other benefits could include assisting with nationwide eradication programmes for diseases such as BVD or Johne's disease as well as dealing with outbreaks of serious threats, such as foot and mouth disease.

UK chief veterinary officer Christine Middlemiss said: "A real-time, digital, accurate and comprehensive multi-species livestock information service will enable us all to be quicker and more effective in our disease responses.

"Government will be able to make better informed risk-based decisions and be more proportionate in action on exotic disease."

### Who is in the Traceability Design User Group?

Independent chairman, John Cross. Former chief executive of Eblex, also led previous efforts to modernise traceability schemes

Government officials including representatives of Defra, Trading Standards, the RPA, the Food Standards Agency, and the Animal and Plant Health Authority

Livestock industry representatives including members of the NFU, the National Sheep Association, the National Beef Association, the National Pig Association

## En route to World Routes

Auctioneers and meat processing representatives including the Livestock Auctioneers Association, the British Meat Processing Association and the Association of Independent Meat Suppliers

The AHDB

Academics including representatives of Harper Adams and Bicton College

What are the objectives?

The six priority outcomes identified by TDUG are:

Facilitate international and domestic trade in meat and livestock products

Secure and build consumer confidence

Enable effective disease control and response

Support supply chain efficiency and farm productivity

Aid animal health and welfare

Underpin a practical system that is easy to use and engages users by adding value for them

JOURNAL : Farmers Weekly

The UK is set to come under renewed pressure to open its post-Brexit beef market to more imports from the US, following an announcement on Monday (3 September) by the European Commission that it will renegotiate its own import quotas for US beef.

Britain has identified the US as a key target for a free trade deal once the UK leaves the EU. American ranchers are expected to put pressure on the Trump administration to push for improved access to UK beef markets as part of those talks, and they will be encouraged by Monday's promise of better access to the EU.

At present, US beef exports to Europe are limited by a 45,000-tonne quota for grain-fed, hormone-free beef. The quota was created in 2009 as part of the settlement of a long-running World Trade Organisation dispute over the EU's continuing ban on hormones in beef.

See also: How to review your farm business to prepare for Brexit

The quota is not exclusive to the US, however, and in recent years Australia and South American countries have taken a growing share of the quota. Now the commission has promised to open talks on reserving a share of this quota specifically for the US.

This could encourage more US cattle producers to produce hormone-free beef, which represents a small specialist niche within the US beef sector. Also, US exporters will view the UK – which will be out of the EU by March 2019 – as a promising additional market.

The commission has promised to maintain its insistence that all imported beef must be hormone-free, and the UK is expected to do likewise.

The EU and UK have provisionally agreed that Britain will in effect remain covered by the provisions of EU trade agreements until the end of 2020 – although this agreement would be null and void if Britain were to leave the EU next March without an overall deal in place.

JOURNAL : Farmers Weekly

## En route to World Routes

Landowners who have a listed farmhouse on their property should consider seeking professional advice before modifying nearby old farm buildings, to avoid breaking the law.

Farm buildings that pre-date July 1948 may be subject to the same rules and regulations that govern the modification of listed buildings, meaning owners require consent from their local planning authority before modification.

These are referred to as “curtilage listed”, which simply means that they are within the vicinity of the listed building.

See also: 5 tips to speed up planning applications

Failure to seek formal approval from the local planning authority before maintaining or altering them is a criminal offence, and it is also illegal to allow their condition to deteriorate into a state of disrepair.

The maximum penalty for carrying out illegal works or causing them to be carried out (for example, by instructing a builder) is two years’ imprisonment or an unlimited fine.

If minor changes are being made then listed building consent will be required, but if significant interventions are being proposed then both listed building consent and planning permission will be needed.

If either is refused then the project cannot proceed until another application is made that addresses the concerns of the planning officer.

Which buildings fall under the criteria?

Defining exactly which buildings are curtilage listed is decided by the local planning authority, which relies on guidance from Historic England or its devolved equivalent, says Rob Jones-Davies, business development manager with diversification advice specialist Rural Solutions.

He says that as a rule of thumb, it is likely that buildings within 50m of a listed farmhouse will be affected, but as it is decided on a case-by-case basis it is vital to clarify the status of the buildings before proceeding with a project.

Finding that adjacent buildings are subject to additional restrictions will cause many landowners some dismay, particularly when they are looking to make significant farmyard changes as part of a modernisation or diversification programme.

Planning authorities 'open-minded'

But Mr Jones-Davies says planning authorities are not blind to this difficulty and acknowledge that maintaining such buildings can often cost significant sums of money.

If landowners can come up with a credible business proposal that preserves the features that are of interest, planning officers are likely to be open-minded about sympathetic modifications.

For example, if the features that need to be preserved are mostly external, they may be amenable to sensitive changes being made to the interior of the building, including a change of use.

This will be particularly likely if it can be demonstrated that the changes will unlock a new income stream, such as a diversification, which will provide the funds required to keep the building in a good state of repair (see below).

What is the law that applies?

Section 1(5) of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that any listed building also includes any ancillary object or structure within the curtilage of the buildings, which forms part of the land and has done so since before 1 July 1948.

## En route to World Routes

As complying with listed building regulations often adds costs to building projects, and the law is deliberately vague on what the curtilage definition is, the matter has come frequently before the courts as applicants have sought to have listings overturned.

There is therefore a significant body of case law on the subject, which has generated three key factors that are taken into account when assessing if a building is curtilage listed:

The physical layout of the listed buildings and their structure.

Their ownership, both historically and at the date of listing.

The use or function of the relevant buildings, again both historically and at the date of listing.

A further summary of the legal position on curtilage can be found on the Historic England website.

Where to find out more

Historic England is the body that keeps records of listed buildings in England and to which applications must be made to add or remove buildings from the list.

Similar organisations exist in each of the devolved regions and a search of their databases can be made to find out the listed buildings in your area in England, Wales, Scotland and Northern Ireland

How a Gloucestershire family turned their curtilage listed buildings into a positive

When John and Rosemary Barnes bought 202ha Whalley Farm, near Cheltenham, in 2016, they took on responsibility for a Grade II listed farmhouse, a separately listed Grade II listed traditional Costwold stone barn, and a curtilage listed tin-roofed calf shed.

With their son Henry and his wife Jo, they had been uprooted from their former farm near Lichfield, in Staffordshire, as the HS2 train line will go straight through their farmyard.

The 2011 Farmers Weekly Diversification Farmers of the Year decided to turn the costly upkeep of the buildings into an opportunity by making them the centrepiece of a fresh diversification scheme.

They had initially set out to replicate the years of experience they had in running an on-farm wedding venue at their previous farm, but local opposition to the perceived increase in traffic prompted a rethink.

Switch to holiday accommodation

Instead they have now received approval for a 10-bedroom self-catering accommodation venue, which will be aimed at large family getaways.

To make their destination extra attractive they will be building a swimming pool complex and stabling.

A proportion of the accommodation will be in the traditional barn, which had previously been unsympathetically converted into a three-storey office before being listed in the 1980s.

Aided by Rural Solutions, they put together a proposal that highlighted the additional cashflow the diversification would generate for the farming business, and enable a significant investment in the restoration of the listed and curtilage listed buildings.

Upkeep made easier

Finding the resources to maintain the buildings would have been much more difficult had planning authorities insisted that no modification was allowed, said John Barnes, forcing them to be left in their existing, uneconomical state.

## En route to World Routes

However, Rob Jones-Davies warns that the changes will have to preserve the features the building is notable for, and planning officers will have clear “red lines”.

He says the Barnes family were fortunate that the previous conversion to the barn had been unsympathetic and therefore planners were willing to look kindly on changes that would improve its standing.

Given that they were putting an offer on the table that would improve the listed buildings, it also improved the chances of the whole project, including new buildings, gaining approval, Mr Jones-Davies says.

What to do if you want to make changes to a farm building that you suspect may be curtilage listed

Use the listed building search on the appropriate website for the country you are in to check what information is already available.

If doubts persist speak to a consultant who deals with planning matters – they may be able to help or put you in touch with a specialist heritage consultant.

If the building is curtilage listed, file a listed building consent form with or without a planning permission application, depending on the scale of the changes.

JOURNAL : Farmers Weekly

Unsurprisingly, the family that run Shearwell Data, one of the major UK players in the tag and software world, are keen on using technology to drive efficiencies throughout the farm. This allows them to multi-task as they all work across their beef and sheep farm and the data business.

With restrictions on building opportunities, due to being located in Exmoor National Park, the Webber family have had to work with what they have and adapt rather than rebuild their sheds.

Richard, James and Sam gave us a tour

See also: What's In Your Livestock Shed visits £1.2m dairy new build

Farm facts and vital statistics

Fourth generation of Webbers now farming. Richard and wife Carlyne, children James, Sam and Emma, and full-time staff Patrick and Jack.

Farm run alongside Shearwell Data EID business, owned by family

Four separate farmsteads within one big ring fence. One farm is leased to and run by Emma and her husband and one is home to Shearwell Data where the livestock building is used mainly for live demonstrations of equipment.

392ha in total at 1,000ft above sea level in Exmoor National Park

1,200 ewe flock lambing indoors at the end of March into April

Flock is mainly North of England mules and Welsh mules put to Texel and Charollais rams

All lambs finished and picked out on farm for slaughter

190-head spring-calving suckler herd put to Limousin and Angus bulls. Currently building up to 250-head herd.

Breeding own replacements and selling stores at auction market. Stores are averaging £960 at 12-14 months.

40ha arable growing winter barley for stock rations

Main farm buildings

## En route to World Routes

Two calving sheds, with bespoke calving pens

Store cattle shed with main handling system and Te Pari crush

Lambing shed with room for TMR feeding and 150 pens at peak times

Lamb finishing shed with 25m x 10m slatted floor and automatic feeder

What has been the biggest recent project?

Richard We sold one farm and bought another a year ago and lambing now happens at that farm. We completely stripped out the lambing shed, which is 53 metres by 35, when we bought the farm.

We had to drill into the ground to create a clean feed face for the Keenan diet feeder, and to make a passage wide enough to drive down. That cost £1,200 to drill the holes.

All the water pipes were in the roof and they would freeze, so we completely redid the water system so that all lambing pens have a water supply.

It's been a lot of work. We gutted everything apart from one run on the back wall, which we use to run sheep along to footbath. Footrot is the biggest problem we have because of the weather, although we have reduced it by 50% through vaccination.

Sam It makes it a lot easier because all the ewes are in one place, so there's less need for the stock box and quad trailer. The ewes will be in bays of 80 and we can move a bay at a time.

There are 150 lambing pens at full capacity – we tend to have five foot square pens for the triplets and four foot square pens for everything else.

James We can build the pens as needed with the lambing pen sides. The pen sides are solid plyboard walls to contain the ewe's smell within her pen.

The steel cost of the work done in the lambing shed would be around £4,000. We can now feed once a day and push up, so they constantly have silage and barley in front of them. Watch a clip of sheep feeding in the lambing shed.

What is your favourite feature on the farm?

Sam The cattle handling system has helped massively with weekly weighing. We're weighing 180 cattle at least every two weeks and the new system allows us to weigh 74 cattle in 11 minutes.

We've got a Te Pari Titan AL crush, which stands for air lever. There are three types – the manual, the hydrolic and the air lever – we went for the air for the drafting gates because we have three-way drafting.

We have fitted antennae to both sides of the crush, to pick up EID tags, and the information goes into a Shearwell recording system.

What has been the best buy?

Sam We have a Keenan MechFiber 380 feeder with InTouch technology. This has made feeding a lot easier. Before we had it, we were feeding bales, shear grab silage and chucking barley around.

Everything apart from finishing lambs is now on a total mixed ration (TMR) and we have separate rations for the calving cows, dry cows, fat stock and ewes.

## En route to World Routes

Emma and I looked at the numbers the other day and two years ago, before TMR, the stores were averaging 0.7kg daily liveweight gain. This year, it is 0.99kg a day. We have had to raise the roof in some of the sheds, but it is worth it to have a bigger feeder.

James Feeding and bedding with the straw chopper can now be done by one bloke by lunchtime, but if there are two of us, we can be done by 10 or 11am, whereas it used to take a lot longer.

What is the best invention on farm?

James The Jimny has got to be up there. The buggy we had before was costing us a lot each year in maintenance so we bought a 2008 Suzuki Jimny last autumn for £2,000 and adapted it, in total costing around £5,000.

Sam It's great – it has heating, air con, radio. It's got a rear-locking diff, we changed the wheels on it and the back box tips up.

What has been a real bargain buy?

James The Pottinger forage wagon was a bargain. It had done 500 acres and we bought it for £38,000 when it would have been £65,000 new.

What couldn't you live without?

Richard The radios. Everybody has a radio because mobile phone signal is so bad around here. The system cost around £10,000, but it's the best investment we've made in some years.

James They have a 'man down' feature, which sends an alarm if the radio is lying down for a certain amount of time. It can be annoying if you put your radio on the dashboard, but it's good to have if you have someone working on their own.

How have your shed adaptations helped with labour?

Richard It's as much about safety as labour-saving. In each of the calving sheds there are 10 calving pens, which are mainly 10ft. They have a self-locking yoke and gate, which can be used to steer cattle and can be adapted to allow for caesareans or calf suckling.

All the pens have a back door for safety, which is really important as people are often working alone. If you've got control of the animal, it makes all the difference.

All the pens have individual adjustable drinkers, so we don't have to take buckets in. We try to design everything to be as easy as possible to use.

Sam The fat lambs on slats are fed through an automatic feeder. The Portequip feeder is piped into the bulk feed tank through an auger system and has a sensor which triggers a refill when the lamb creep feed falls to a certain level.

What other handy tools do you use in the lambing shed?

Richard The warming box has earned its keep. It's powered by a fan, with four compartments – it's actually big enough to put a calf in. You can use one end to keep milk warm and then you can put weak lambs in it to get them going.

James We have one whiteboard on the small hut in the middle of the lambing shed and we work a collar system. Different colour collars are put through the hand hole on the pen sides – each colour means something different and the key is on the whiteboard.



## En route to World Routes

For example, this year a green collar on the pen meant there was a weak lamb. This makes it easy for people to know what's going on because there are usually five or six of us around the shed, moving ewes and lambs. The milk bar for the orphan lambs has helped save time feeding them too.

Richard We fit a temporary ramp in our sheep race to prevent backing up. Sheep run over it and jump down it, but can't get back up it when reversing, so it keeps them flowing well.

How do you use all the data you're collecting in the sheds?

Sam When you're weighing cattle in the new crush, you can see their current daily liveweight gain as well as three previous weights, so you can see instantly if one animal is going backwards or if they all are, they might need worming or something.

It's a vet crush, so has a safe area at the back of the animal for AI or anything else.

Richard We can use the weight data to make instant decisions, so we can get shot of lambs if they're fit or if they're not doing well, so we don't waste time feeding them or get price deductions for going overweight.

And I use the data to look at the financial performance of the whole flock, so I can see which ewes are making the most money. I ran a report on all the mule ewes we bought in and found that the top three all came from the same flock.

Sam We can also see which fields are producing the better daily liveweight gains and compare performance between groups. It might be because of red clover, for example.

Who does all the building work?

Sam Most of the building is done in-house. We built the pens for the lambing shed and the calving pens. We're lucky that we can borrow labour from Shearwell.

And where do the design ideas come from?

James We design everything ourselves, mainly because of cost and lead time. A lot of the ideas come from overseas as we travel a lot, particularly to Australia and New Zealand.

What is next on the wish list?

Sam We're investing in machinery so that we can do more with one person because we're always dividing our time between the farm and Shearwell. A feed-pushing robot is next on my list. We spend a lot of time when the sheep are in pushing up feed.

Unfortunately, I don't think it'll make it up the slopes in the yard, so it'll be limited to certain buildings, but we can use it in the cattle sheds before the ewes come in. It's not cheap, but hopefully we will be able to get some grant funding on the next round to help with 40% of it.

And I want to get more cow brushes. The store cattle love the one in their shed – they didn't know what to make of it when it first went in, but after two hours, they were queueing for it. It gets the straw off their backs too and gives them a nice shine, which is good for market. See the cow brushes in action in this clip.

We could also do with a bigger tractor for foraging. We have a John Deere 6930 chipped to 200hp at the moment, but it struggles up the steep hills.

Richard I'd like them to stop spending money!

James He says that, but he's always the one spending!

JOURNAL : Farmers Weekly

## En route to World Routes

Set on the fringes of Lexington, the University of Kentucky's Coldstream Dairy unit is a fount of research for dairy health efficiencies.

In the pursuit of cow comfort, the university erected a purpose-built shed in 2016. Housing 124 cows, the building is designed to optimise production and herd health.

Each of the 130 pedigree Holsteins is fitted with a number of recording devices which measure everything from temperature and activity to rumination.

See also: What's In Your Livestock Shed: £5k sheep shed transformation

Herd manager Joey Clark has been at the centre of the new build and has seen the dramatic difference it has made.

#### Farm facts

Cows milked twice daily

The herd of 130 averages 11,566 litres a cow a year at 3.9% butterfat and 3% protein

All-year-round calving

About 121ha of crop and pasture

Lactating cows kept indoors, and replacements and youngstock both grazed and indoors

Lactating cow TMR is 55% forage/45% concentrates: corn silage, alfalfa, haylage, whole crop and processed feed mix to provide 25kg of dry matter per cow per day

How much did it cost and did it come in on budget?

The budget was £390,000 and we spent the entire budget.

There were additional costs associated with research-related items and part of those were donated or discounted. These costs would have been an additional £156,000.

We would like to have made further investments, including an automatic scraping system and a concreted walkway to the parlour.

What are the shed specifications?

The 150ft x 150ft (2,136sq m) shed is set up as loose housing, with two pens at either side of the barn that can be roped into three sections to divide up cows for management and research purposes.

It was designed for 124 cows, allowing for 100-110sq ft per cow.

A central lane allows tractor access to deliver feed, while two other alleys, floored with rubber matting, give the cows access to feed, water, sprinklers and cow brushes away from the bedded area. The surface means these can be scraped out easily.

<https://infogram.com/uni-of-kentucky-1hmr6g9779xz4nl?live>

The shed has an open ridge vent along the apex for ventilation and it has been positioned to catch the wind for natural ventilation.

The sides of the shed are open but have automatically adjustable curtains to protect the cows from the weather, with five temperature sensors around the barn.

## En route to World Routes

What devices have you installed to improve cow comfort?

The barn has six Big Ass Powerfoil X3.0 fans installed overhead, which are integrated into the automatic temperature and humidity sensor system that monitors conditions for maximum cow comfort.

The three central alleys have overhead Yellow Jacket fans which work with a misting system to cool the cows. The new barn has helped quite a bit for us in terms of heat stress in the lactating cows.

The whole barn is lit with Big Ass Light Washdown LEDs, which are wet-rated fixtures that can be hosed off when they get dirty.

There are also six grooming brushes, three in each of the two cow alleys.

What did you have in mind when designing the shed?

Though cow comfort was a top priority, planning for the future meant location was also very important when designing the shed. We planned it so that when we build a new parlour, access will be easy.

Making sure the shed would work with research projects was also important. Not only can each pen be split into three, the alleys can be split via gates, with access to a water trough, feed and brushes in each section.

You've also installed green bedding. Tell us more.

The cows were moved into the shed on 21 April 2016, but before that they were in free stalls with either water mattresses or rubber cow mats. The unit is now using sawdust and cow manure for bedding.

One of the main reasons behind this was the high level of phosphorus on the university's land, which means we cannot always apply slurry directly. Instead, we were paying someone to take it away. Now the composting binds the phosphorus and makes the manure more usable.

The bedding is tilled twice a day – taking about 25 minutes each side of the barn –to incorporate air and to keep moisture levels managed, with a target of 50-55% dry matter.

In the winter we have to be more diligent about keeping the moisture level down. Though this takes around the same time as the previous system with free stalls, which had to be hand-raked to redistribute the sawdust, the work can now be done on a tractor.

There's no smell from the bedding and even when temperatures are just above freezing, it continues to compost, which is all down to the ventilation of the barn.

What difference has the shed made?

As well as drastically improving cow comfort, moving to the new shed has boosted milk production.

We were averaging 32-33 litres a cow a day, but now it's around 36 litres. And we're no longer getting a drastic drop in production during the summer months. In our old shed we would lose 3.6-4.5 litres a day.

The increase in yield is also helped by better access to feed, which is pushed up to the central feeding alley by a robot. The sprinklers also encourage the cows to eat more on a hot day.

On top of this, the somatic cell count (SCC) has more than halved, from 250,000-300,000 cells/ml to about 110,000, meaning the unit now gets a quality bonus on its milk cheque.

In addition, there have been no hock abrasions over the past two summers and although hoof growth hasn't altered, we have seen a big reduction in digital dermatitis.

What's your favourite feature?

The cows love the shed, especially the green bedding. If I come out at night, they are all lying down. The cows are easier to manage, and it was definitely a worthwhile investment.

JOURNAL : Farmers Weekly

Compound feed prices are expected to rise by between £25/t and £40/t for winter deliveries between November and April.

This would put an 18% protein high-energy dairy ration in the £240-£250/t range for bulk full loads for an average 150-cow herd.

Energy feed costs have risen the most, with barley worth just £5/t less than wheat.

See also: Tax and finance advice when expanding your farm business

However, with some northern and Scottish barleys looking like they might not make malting grade, feed barley prices could lose some ground in future, widening that gap again, suggested Thomas Baines-Sizeland, feed business manager at AF Group.

Most feed ingredients are available but not plentiful.

The protein market has seen prices reduce slightly in the past few days (midweek), with HiPro soya at £320/t-£325/t delivered spot and no increase for October.

The US soya harvest is set to rise to a record 366m tonnes and US-China trade issues are putting pressure on prices. Having said that, the weak pound is adding price pressure for feed buyers here.

Rapemeal, by contrast, at £240-£245/t spot looks expensive against soya.

The price and supply squeeze is turning farmers' attention to alternative feeds such as co- and by-products – but these are increasingly being sent to in-house AD plants by their producers, for example by Scottish distillers and potato processors.

Brewers draff grains are costing £43/t-50/t, also in a tight market and about £10/t up on a year ago.

British Sugar this week released its first limited allocation of beet pulp feed which was snapped up almost immediately and looks like being priced at about £220/t-£224/t on to farm from November, about £40/t more than a year earlier.

There is uncertainty about the supply of distillers' dry and wet feed from the northern bioethanol plants, with one of these widely rumoured for a maintenance shutdown in the next few months. This would disrupt supply of a valuable alternative feed.

AF Group supplies feed nationally and Mr Baines-Sizeland has seen a trend to more farmers using unmineralised blends supplemented on farm with bought-in minerals, saving on compounding costs.

The use of molasses with straw is also increasing, although Mr Baines-Sizeland cautioned against high-protein molasses for sheep.

He also said the high price of raw material and the market volatility meant some compounders were unwilling to quote prices beyond January.

Farmers could book tonnage with the price to be agreed later, but not many were taking up this option.

"Most are holding back from committing to winter tonnage at present," he said.

## En route to World Routes

Another feed supplier, based in the north-west, said that as well as high raw material prices, compounders were seeing big increases in fuel bills and other running costs, while driver availability was a real issue in some areas. This was all adding to feed costs.

## Feed market factors

High wheat, barley and maize prices are keeping energy feed costs up:

Barley-wheat price gap could open up again as the extent of barley malting quality potential becomes known.

Record world soya harvest predicted – 366m tonnes – helping to keep a lid on protein price rises.

Weakening pound raising prices further for imported raw materials.

Record world maize production – but increased production will be outweighed by a bigger increase in consumption.

AD plants taking an increasing tonnage of material such as distillers grains and vegetable waste which in the past would go into livestock feed.

Rapemeal looks an expensive protein source compared with soya.

US-China trade issues weigh on market, in general depressing soya prices but also giving potential volatility.

## JOURNAL : Farmers Weekly

Farmers in Wales have six weeks to apply for up to £50,000 of grant funding to tackle on-farm pollution.

The Sustainable Production Grant (SPG) expression of interest window opened on Monday (September 3) with a funding pot of £6m.

Grant money will be available for 40% of a project costing between £30,000 and £125,000 in total, meaning farmers will be able to claim between £12,000 and £50,000.

See also: How to reduce pressure on slurry stores and build new ones

As pressure grows on the farming industry to tackle pollution, the Welsh government has put the issue firmly at the centre of this new round of SPG grant aid.

The scheme was last open in 2016 when it was massively over-subscribed. It is part of a wider programme of grants delivered through European funding which also includes money for equipment which has been demonstrated to promote on-farm efficiencies.

Roofed or covered slurry stores are on the list of eligible items along with silage clamps, systems for dirty water management and slurry tankers.

Fuel tanks and chemical stores are also on the list, as is precision farming technology: GPS systems qualify for support.

What has changed since the last round of funding?

A criticism of the last round of SPG funding was that it was beyond the reach of many farmers – at that time a farmer had to spend a minimum of £40,000; at that level the grant was £16,000.

The threshold has been reduced slightly this time around – grants of £12,000 to £50,000 can be claimed.

The government makes clear that to qualify, any investment must demonstrate “clear and quantifiable benefits” to the applicant’s farm enterprise and the wider environment.

## En route to World Routes

The grant will support covered storage only if it achieves a minimum storage capacity of 160 days – or 190 days for pigs and poultry – regardless of any existing on-farm storage.

Uncovered slurry storage facilities will get support only if the roofs and yards associated with rain water entering the proposed storage facility or any existing storage are made good first.

Which capital items are eligible?

Below-ground tanks/slurry stores and reception pits

Above-ground circular stores

Covers for slurry tanks and lagoons

Mats for silage pits

Trailing shoe and band slurry spreaders

Slurry injectors

Slurry separators

Variable-rate controllers for sprayers and fertiliser spreaders

What other criteria must farmers meet?

They must:

Have been trading for two years

Be able to provide estimates for the cost of the items

Not have been awarded an SPG in previous windows

Have attended a Farming Connect Sustainable Farming roadshow

Farmers have until October 16 to apply. More information on eligible items and online application forms are available on the Welsh Government's website.

JOURNAL : Farmers Weekly

Storage is a crucial part of the potato production cycle, helping growers meet the demand for their crops throughout the year, but if carried out poorly it can be economically disastrous.

About 3.25m tonnes of British potatoes are stored every year and crops can spend as long in the store as they do in the ground.

Done well, potatoes will come out of store in perfect condition meeting processor specifications. However, done badly, tubers can spoil or even rot in stores with losses rapidly mounting up.

See also: Midlands potato grower develops time-saving chitting system

To help get things right, the AHDB has updated its Potato Store Managers' Guide to provide the most recent and comprehensive advice for potato store managers.

Adrian Cunnington, the guide's author and the head of Sutton Bridge Crop Storage Research, highlights the key updates that will help improve storage practices for the upcoming season and beyond.

## 1. Airflow

Ventilation is the fundamental aspect of potato storage, helping to dry and cool the crop when it is brought into store and remove respiration heat throughout the desired storage period.

A well-designed potato store will have positive and uniform airflow, ensuring there are no hotspots which can lead to condensation build-up and increased risk of bacterial or fungal tuber disease and sprouting.

Good airflow is easiest to achieve in bulk stores, as they are mostly ventilated under the stack.

Air distribution is trickier in box stores. In fact, recent research has identified that in the poorest performing overhead throw systems, as little as 15% of the air discharged over the crop makes it to the end of the building.

This is because the delivery and return air will always take the path of least resistance, creating shortcuts and a subsequent failure to ventilate the store evenly.

Advances in computer fluid dynamics (CFD) modelling can help farmers design new stores as well as upgrade existing ones to improve airflow. For box stores, farmers are urged to invest in a divider curtain or plenum to separate delivery and return air.

This alone has been shown to provide at least a twofold increase in air reaching the far end of the store.

## 2. Leakage

Air leakage has been identified as a major problem in commercial stores and can scupper the aim of potato storage – to create a controlled environment that keeps tubers in optimum saleable condition.

Leakage from wind-induced ventilation leads to loss of control of the store environment and possible problems include condensation and sprouting.

Combatting these issues through extra ventilation or refrigeration, without fixing the source of the problem, leads to increased running costs and higher tuber weight loss.

A leakage test for stores has been developed, which uses fans to subject the building to a pressure differential of 50 pascals. An AP50 value is generated, expressed in cubic metres of air lost per hour per square metre of building.

An acceptable standard for brand new buildings is 3cu m/h/sq m. Older buildings, even if well maintained, are unlikely to achieve this, so 10 cu m/h/sq m is a more realistic target.

## 3. Respiration

In a recently completed project, Sutton Bridge researcher Glyn Harper has revisited work carried out in the 1950s on respiration rates in store, where the living tubers use sugars to respire, using oxygen and releasing carbon dioxide and heat.

The old data gave a snapshot in time, but his new research aimed to monitor respiration rates over long-term storage periods and it was found that respiration rates stabilised, particularly at lower temperatures.

For store managers, this means that after the initial curing and temperature pull down, longer-term stored crops might not need the same level of ventilation as first thought, leading to potential efficiency and energy savings.

## 4. Sprout suppression

It is well documented that the potato industry is in the “Be CIPC Compliant” era, with the industry stewardship campaign of that name promoting responsible use of the sprout suppressant chlorpropham to help maintain its availability amid concerns over residue.

Mr Cunnington stresses the increased importance of improving management and control of stores in order to apply suppressants correctly and evenly for maximum efficacy and lower residues.

He adds that taking steps to minimise the need for sprout suppressants is worth considering, such as growing varieties with long tuber dormancy and low-temperature tolerance (for example VR808 and Russet Burbank).

That's because lower temperatures can reduce sprouting, but can lead to quality issues in less tolerant varieties.

Where feasible, varieties should also be segregated by inherent dormancy into different stores, ensuring that only the tubers requiring sprout suppression are treated.

With continuing concern over the long term availability of CIPC, alternatives should also be considered. Ethylene, maleic hydrazide and spearmint oil are all cleared for use in the UK, but always check market acceptability before application.

This may be particularly useful in 2018, after the hot summer has seen accumulated heat in tubers, causing sprouting in the ridges. This growth can be quickly checked with spearmint oil, for example.

## 5. Disease identification

One key factor for store managers is to correctly identify the wide range of storage diseases and defects seen on tubers.

Two skin blemishes that are commonly confused are silver scurf and black dot, which both affect saleability of potatoes for the fresh market.

Black dot is an infection only picked up in the field and not spread in the store, whereas silver scurf can be seed-borne, picked up in the soil or spread in store, so correct identification will help target management.

Identifying silver scurf by its characteristic silvery sheen is not reliable, so a 10x hand lens should be used to look at the surface of the tuber. If short black thread-like conidiophores are seen, it is silver scurf. These are easily washed off.

Also at 10x magnification, black dot conidia appear as small, dispersed black dots, sometimes as small as a skin cell, and they are not removed by washing.

For silver scurf, warm and damp conditions encourage spread in store, so keeping temperature cool and minimising condensation will reduce the risk of exacerbating the problem.

Black dot should be controlled in the field using longer rotations, clean seed, weed host and potato volunteer control, and fungicides, with azoxystrobin offering a delay in disease development. Varietal susceptibility also varies.

Although black dot doesn't spread in store, it can worsen on the surface of affected tubers. Rapid pull-down to the target storage temperature will help slow development.

Mr Cunningham also highlights pink rot and watery wound rot as increasing problems and where these are identified at significant levels, infected crops should be removed from store and sold before the rots spread and break down.

## 6. Temperature and condensation control

Achieving and maintaining the correct storage temperature is crucial for preventing several issues, most notably condensation in store. A condensation period of just one hour can allow a blemish disease to develop or rotting to begin.

Ensuring moisture does not appear in store is important and Mr Cunningham says a key parameter that managers need to get to grips with is in-store temperature fluctuation.

Condensation will occur when warm, moist air comes in to contact with cold surfaces. In store, this most commonly appears on poorly insulated building fabric and this moisture can drip on to the crop.



However, condensation can occur on the crop itself when the air surrounding the potatoes is warmer than the potatoes themselves, or the potatoes' surface temperature is below the dew-point temperature of the air.

To avoid this, growers must have accurate control of temperature in store – ideally having fluctuations of +/- 1C or below – and Mr Cunningham stresses the importance of upgrading old stores to achieve this.

For those with long-term plans, consider investing in new, state-of-the-art stores with automatic control systems.

#### 7. Pull-down rates

Potatoes can suffer bruising or other physical damage during the harvesting and handling process and these "wounds" need to be healed to minimise fungi and bacteria getting into tubers and causing storage problems.

Potatoes have a natural defence mechanism whereby suberin forms between and below damaged cells, building a barrier to infection. The rate of this wound healing or "curing" is influenced by temperature.

Previous wisdom advised growers to carry out drying and curing and "pull down" to storage target temperature as separate processes, but it is widely accepted that these are now carried out simultaneously.

Research has shown that a process called dry curing – where ambient air is used immediately on crops entering the store to dry, cool and cure at the same time – significantly slows tuber disease development.

#### 8. Carbon dioxide management

Tuber respiration in store produces carbon dioxide, which accumulates in the atmosphere. Allowing this to occur without flushing the store with fresh air can compromise optimum fry colour in processing potatoes, as sugar levels are increased in the stored tubers.

Mr Cunningham says increased awareness of carbon dioxide levels in store is required and store managers should aim to keep levels below 2,500ppm.

Modern automated systems use sensors to monitor levels and purge the gas out of stores when a threshold is breached.

In older stores, simply fitting and running small extractor fans or ventilating the store to allow ambient air in for a short period each day can help reduce the impact of the gas.

However, store managers should be careful that this does not create a condensation problem.

#### 9. Health and safety

Agriculture continues to hit the headlines regarding work-based accidents, and potato stores are a place where there are many risks. Working at height, slips and trips, lone working and carbon dioxide accumulation are just a handful that need to be mitigated.

Managers are urged to carry out a risk assessment, which is a statutory requirement under health and safety law, and implement measures to reduce the risk posed to those working in and around potato stores.

Stores should be flushed regularly with fresh air to reduce carbon dioxide buildup, not only to protect the crop, but staff too.

Workers should be aware of safe exposure limits, watching out for warning signs such as breathlessness and dizziness or difficulty starting forklift trucks when working in store.

#### 10. Record keeping

One area that could be significantly improved in UK potato store management is record keeping and the new guide offers some insight into the advantages of maintaining rigorous records.

Without keeping note of aspects such as energy use, it is difficult to get a good handle on storage costs or to show if any changes in management have made a tangible difference to the running of the store.

<https://infogram.com/potato-store-facts-1h9j6qw01mv56gz?live>

#### The AHDB Potato Store Managers' Guide

This article provides only a glimpse of the latest AHDB potato store managers' guide. You can download a free PDF copy of the full and comprehensive text covering all aspects of potato storage at the AHDB website.

JOURNAL : Farmers Weekly

A no-deal Brexit would be "apocalyptic" for European dairy, according to a senior figure in the Irish dairy industry, delivering stark warnings over the future of the sector.

Dairy Industry Ireland (DII) director Conor Mulvihill offered a frank and direct assessment of the Brexit situation, singling out the UK government and its departments for particular criticism over their handling of the negotiations.

Mr Mulvihill said he felt compelled to speak out over the issue as he had become frustrated by what he saw as a wall of silence from within the UK over critical issues, during the INTL FCStone EU Dairy Outlook conference in Dublin.

See also: Budget for Brexit in a brave new world of lower subsidies

Here are nine of the key points Mr Mulvihill made:

1. UK trade associations are being forced to back Brexit
2. Senior UK trade officials don't understand Brexit basics
3. Nothing is happening in Whitehall
4. The UK is way behind on regulatory divergence
5. FTA is the UK's best-case scenario
6. New Zealand, Australia and the US are queuing to take up EU slack
7. Lack of Brexit dialogue in the UK is baffling
8. Russia ban will look like a picnic compared with Brexit
9. Most EU dairy representatives don't care

1. UK trade associations are being forced to back Brexit

Trade associations representing UK agriculture, food and drink have approached DII to ask it to bring to light particular issues, as they themselves are being prevented from criticising Brexit.

"UK trade associations know [Brexit] is a mess from a business perspective," he said.

"They have been told from the highest levels of British government if you come and undermine Brexit, you are going to be cut out."

## En route to World Routes

Mr Mulvihill told Farmers Weekly that trade associations were being threatened with a loss of influence or access if they publicly expressed negative Brexit opinions.

## 2. Senior UK trade officials don't understand Brexit basics

Senior figures at the Department for International Trade thought the UK would be able to adopt existing EU free-trade agreements.

"I've been into the Department of Trade and had a conversation with someone very, very senior and it dawned on me half way through the conversation that they did not know that they were going to lose the 53 existing free-trade agreements that the EU have."

Mr Mulvihill alleges that the senior figure thought the UK would just transpose the existing EU deals with the like of India, the United States, Japan and South Korea.

"I said, 'You're out, guys. You are back to zero'.

"I found that really scary when I saw officials who were supposed to be specialists that didn't know that," he added.

## 3. Nothing is happening in Whitehall

There is virtually no Brexit planning going on in Whitehall when he goes to visit in his capacity as director of DII, according to Mr Mulvihill.

"There is a Tory party internal war that is taking up all political headspace," he says.

"I don't see any planning. I see a couple of papers on a no-deal Brexit. We've seen a white paper which is welcome but goes nowhere near giving businesses clarity as to what to do."

Mr Mulvihill said the EU faced a situation where the UK, the world's largest importer of cheese, could be off the coast of mainland Europe with no deal in place in just six months.

"From a business or a political perspective, we are in a new era," he said.

## 4. The UK is way behind on regulatory divergence

With just six months before the UK is scheduled to leave the EU, Mr Mulvihill says work on regulatory divergence, essential for UK products to enter the EU post-Brexit, did not exist and planning was only just starting now.

"There is no plan. There is a lot of saying, 'We will do our own labelling, we will do our own nutrition,' but since Brexit has been announced there has been 700 new EU laws affecting agri-food that need to be transposed in UK law.

"The 'lift-and-shift' solution put forward by the UK has been made redundant already," he said.

Mr Mulvihill added that there was no body able to monitor or resolve UK/EU trade disputes either.

## 5. FTA is the UK's best-case scenario

The best result for the UK would be a free-trade agreement with the EU, he said. However Mr Mulvihill pointed out that sellers who had tried to export cheese to Canada under the Comprehensive Economic and Trade Agreement (a free-trade agreement between Canada and the European Union) or products to South Korea would know that this sort of deal is not the same as access to the single market.

He added that the current from powerful elements in UK politics, suggesting that a no-deal outcome for the UK dairy industry would be a good thing, would lead to untold damage to both the UK, Ireland and the EU.

"From a trading and derivatives perspective a no deal is not a good outcome – the damage this potentially has to all of our industry is astronomical."

#### 6. New Zealand, Australia and the US are queuing to take up EU slack

Cheddar and butter tariffs under a World Trade Organisation (WTO) deal would wipe out the competitiveness of Irish and EU dairy exports into the UK.

"The cost to Irish cheesemakers would equate to an extra 21.5c/litre (22p/litre). Best of luck fobbing a 50% price rise on the British consumer," said Mr Mulvihill.

He added that higher tariffs would lead to a 90% reduction in French and Irish cheese exports into the UK.

"The British government will be looking to their friends the Kiwis and will have to do a damned bad [free trade] deal [for the UK] to make sure there are no price increases.

"I assure you, from being in Whitehall myself, people from New Zealand, Australia and the States are already buzzing around waiting to take on that slack."

#### 7. Lack of Brexit dialogue in the UK is baffling

Mr Mulvihill said he was in disbelief after listening to Michael Gove's speech to 2,000 British dairy farmers at the NFU convention in Birmingham in March.

"Michael Gove delivered an absolutely fantastic speech to these farmers and he got a huge ovation," he said.

"In March it was just 350 days until Brexit. What was Michael Gove's main topic within that? Fly tipping in the English countryside.

"He mentioned Brexit just once or twice in passing to 2,000 dairy farmers who don't know where their product is going to go or what trading arrangements they're going to get."

Mr Mulvihill said he found the whole situation "crazy" and ended up dropping his speech on Irish dairy's work to combat climate change, instead attempting to pick apart what Brexit might mean – which he admits "went down like a lead balloon".

#### 8. Russia ban will look like a picnic compared with Brexit

It is important to remember the lessons learnt from the export ban to Russia implemented in August 2014.

"No one figured on displacement of trade. The Finns, the Poles and the Irish couldn't export to Russia and all the trade bounced back to the single market."

Mr Mulvihill said the ban resulted in a drop in Irish exports of 30%, despite just 1.5% of dairy shipments actually going direct to Russia.

"If that scenario comes out again, I assure you a hard Brexit will make Russia look like a picnic," he said.

#### 9. Most EU dairy representatives don't care

The Irish dairy board director said the perspectives for Ireland and Britain varied substantially from what dairy industry insiders thought on the continent.

"I seem to be one of the few voices [in the EU dairy association] who is even bringing up Brexit.

"The attitude from the rest of Europe is: Bad decision. Sorry you're leaving but don't let the door hit you on the way out."

He added: “The rest of Europe has moved on. They don’t want to talk about [Brexit].”

JOURNAL : Farmers Weekly

Government plans to abolish farm subsidies and introduce a new system of environmental payments fall short of the support needed for the sector, say industry leaders.

The government's long-awaited Agriculture Bill has met a mixed reception from farmers and environmental groups – with some praising its ambition and others voicing dismay.

Under the policy, direct payments will be phased out over seven years and disappear completely after 2027, to be replaced by a new system of “public money for public goods”.

Legislation to deliver a new policy for agriculture after the UK leaves the European Union is being introduced into Parliament on Wednesday (12 September).

See also: Agriculture Bill – Direct payments to be phased out by 2027

Defra secretary Michael Gove says his flagship Bill will reward farmers who protect the environment and enhance the countryside for future generations.

But NFU president Minette Batters said the government must put the business of food and farming as well as the environment at the heart of its new legislation.

“The NFU, alongside the whole food supply chain, has been absolutely clear about the essential ingredients for a progressive, profitable and sustainable food and farming sector post Brexit.

“These include comprehensive measures to improve the environment and productivity and tackle volatility alongside free and frictionless trade and access to a competent and reliable workforce.

“The Bill, as described in the announcement, falls short of our aspirations in these regards.”

The Bill is being launched on Back British Farming day – the annual day when the NFU calls on politicians to underline their commitment to agriculture.

'Damaging for everyone'

Ms Batters said: “It is vital that in the future British farmers can continue to meet the food needs of a growing population.

“A future agricultural policy that ignores food production will be damaging for farmers and the public alike.

“The public demand and deserve safe, high-quality, traceable, affordable food, whatever their income. And moreover, they want British farms to supply that food.”

Tenant Farmers Association chief executive George Dunn said at first sight the Bill fell “massively short” of his members' expectations.

“It fails to provide a comprehensive strategy for ensuring the sustainability and resilience of our domestic agriculture and the environment it supports.”

“Focusing almost exclusively on public payments for public goods without having any clear plan for increasing productivity is short-sighted and flawed.”

Having nothing on improving fairness within supply chains or protecting standards in trade will leave domestic producers in a highly vulnerable position, said Mr Dunn.

'Seminal moment'

But the Country Land and Business Association was more positive.

CLA president Tim Breitmeyer said: “The development of a new post-Brexit UK agriculture policy is a seminal moment for the future of our countryside.

“We fully support the government's ambition for a future where farming and food production go hand-in-hand with a healthy environment.”

Plans to introduce an environmental land management scheme for farmers recognised the full range of public benefits that farmers and land managers could deliver, said Mr Breitmeyer.

A seven-year transition period – as outlined by the government – should be sufficient time to adjust to the new system, he added.

“Proposals to reduce payments in manageable increments, spread across the farming industry, will enable businesses to avoid the risk of rapid change with no time to prepare.

“The government must now ensure that further cuts align with the introduction of the new environmental land management contracts to avoid any cliff edges for farm businesses.”

#### Question of funding

Environmental groups have also welcomed the legislation.

RSPB conservation director Martin Harper said the announcement offered a “positive outline statement of intent” about its ambition for agriculture and the countryside.

“This feels like an important step forward – improving the sustainability of farming is key to realising the UK government’s ambitions to restore nature in a generation.”

The big unresolved issue was funding, said Mr Harper.

As expected, there was no clarity on how the government intend to fund its policy beyond an existing commitment to maintain current levels of expenditure to 2022.

Securing funding beyond that date would be a priority, said Mr Harper – and something the RSPB should be able to strike common cause with all farming unions.

He added: “The resources made available to back up the new policy will ultimately be the key test as to whether this Bill is a success or failure.”

#### JOURNAL : Farmers Weekly

Farmers will be able to use direct payments as a “golden handshake” to retire from the industry under plans contained in the government's Agriculture Bill.

To help new entrants get into the sector and give farmers flexibility to plan for the future, direct payments will be “delinked” from the requirement to farm the land.

See also: Direct payments to be phased out by 2027

This will give farmers much greater freedom over how they use the money they receive until direct payments are phased out completely in 2027.

The government is also looking to give farmers the option of taking a one-off lump sum in place of all their annual payments over a number of years.

#### Retirement fund

## En route to World Routes

Some farmers could use the money to invest in their business or diversify without having to worry about the paperwork that accompanies the basic payment scheme.

But others may choose to take the money as a lump sum to stop farming altogether and use the payment to contribute to their retirement fund.

Defra says this should make it easier for new entrants to get into the industry – and for existing farmers to expand by acquiring land.

It says allowing farmers to take payments this way meets a widespread desire for simplification.

## Good practice

De-linking will also remove the requirement to follow existing EU rules – as well as the system of payment deductions that enforces them.

The change in the last remaining years until direct payments are finally abolished could help improve some of their more onerous requirements.

But the government says all farmers will still have to comply with good land management and husbandry standards.

It says alternative enforcement mechanisms will be introduced before payments are delinked to ensure that good agricultural and environmental practice is maintained.

## JOURNAL : Farmers Weekly

The AHDB has released an update to its drought impact report, examining the effects of the prolonged dry weather this summer on each farm sector.

The levy board added that although the weather has since changed, many of the implications of one of the driest summers on record were still being felt.

See also: Why growers must reduce reliance on pesticides

## Cereals &amp; oilseeds

## Dairy

## Potatoes

## Red meat

## Pigs

## Cereals and oilseeds

<https://infogram.com/gb-planted-area-1h9j6qwj85mv6qz?live>

Rain in the autumn and spring planting windows led to a poor start for crops.

May's dry weather helped growth above ground, but meant some spring crops' root structures suffered.

Drought conditions peaked during yield-formation time, leading to concerns over yields and quality.

The dry weather allowed harvest to start up to two weeks earlier than averaged over the past five years.

Yields varied depending on region and soil type. Crops on heavier land generally performed better and were not far off the average. Crops on lighter soil suffered the most, with the effect on yield and quality varying greatly.

## En route to World Routes

Wheat quality has been generally good, despite yields dropping back slightly on the five year average.

Barley has seen variability in screening and higher levels of nitrogen than desired by maltsters.

Oilseed rape yields have been down. Reports have come in of growers harvesting early in the morning to guarantee adequate moisture levels.

The European drought, alongside weather concerns in the Black Sea region, have supported global prices.

Higher domestic demand have helped physical prices, with some livestock-dense regions showing more movement.

## Dairy

Milk production dropped during the summer and was behind last year, but remains in line with AHDB Dairy estimates.

Milk yields have held up relatively well, often at the expense of farmers' silage stocks and bought-in feed.

Concerns about how reduced silage stocks and rising feed prices will hit milk production this winter.

Milk-to-feed-price ratio has improved in the past few months, but is still running behind the five-year average. This means feed is less affordable and will put pressure on yields. If feed prices increase later in the year, producers will require farmgate price rises to prevent a fall in milk production.

Higher GB slaughterings of dairy cows were recorded in the summer, but the resultant effect on volumes has been small.

The effects of heat stress on fertility rates will only become clear when calving figures are published.

## Potatoes

<https://infogram.com/potato-yields-1h0n259zgwiz4pe?live>

Planted area was negatively affected by the adverse weather – delaying planting and affecting growing conditions of the early crop.

AHDB data from 2017 showed only half of the planted area had irrigation available – figures unlikely to have changed this year.

Growers able to irrigate were largely able to mitigate the dry conditions, while adding costs and extra time to the process.

Growers without irrigation have seen yields negatively affected and more prevalent instances of skin freshness issues. Recent rain will have caused secondary growth for some.

New-crop prices have begun well this season, with the first free-buy WAPS price for 2018 far higher than in recent years. The overall WAPS price has fallen back since then, but remains insulated by limited supply.

Many are holding off lifting until crops bulk out.

## Red meat

Scant evident that beef and veal production has been affected in a large way.

Cow slaughter was already high, but increased during the drought

Throughputs remained stable due to restrained demand, despite more slaughter animals being available.



## En route to World Routes

Supplies were withdrawn when grass growth began picking up.

Carcass weights overall showed little change.

Effect of drought is likely to be delayed until housing as most cattle were fed first-cut silage and grazed second-cut land.

## Pigs

Average pork production between May and July was above year-earlier levels, with the prior winter conditions offering more of a problem for producers than the drought.

Average carcass weights across the period were above year-earlier level.

There are fears heat stress will affect fertility in pigs, affecting production in early 2019.

Concerns remain for all livestock producers over winter feed supplies and costs.

## JOURNAL : Farmers Weekly

The government's Agriculture Bill represents the biggest overhaul of UK farm policy since the end of the Second World War – and heralds the end of public support for food production, which has been in place since before that.

The 62-page document sets out plans to abolish direct payments to farmers in England and replace them with a new system of public money for public goods – rewarding farmers who undertake environmental measures rather than those who produce food. Other UK nations are expected to implement similar policies.

See also: Direct payments to be phased out by 2027

Central to the new policy will be an Environmental Land Management (ELM) scheme. It will build on existing stewardship schemes familiar to many farmers, although the government says it will be less onerous and involve less bureaucracy.

The new system will be phased in over seven years, with the last direct payments to farmers made in 2027. The ELM scheme will be piloted and honed over the same period and will be fully in place by the time direct payments end.

## Gove's 'Green Brexit'

Widely anticipated following the government's Health and Harmony consultation earlier this year, the Agriculture Bill has been welcomed by environmental groups keen to hold Defra secretary Michael Gove to his pledge to deliver a "Green Brexit".

But the document's emphasis on environmental measures has come as a bitter blow to farm leaders. They say the bill's failure to focus on the importance of food production threatens to undermine the agricultural sector at a crucial time as the UK leaves the EU.

Public goods supported in future will include improvements in soil, air and water quality, protecting and enhancing wildlife habitats, providing public access to the countryside, protecting the rural environment, flood-risk mitigation and carbon reduction.

However, the NFU says a future agricultural policy that ignores food production will be damaging to farmers and consumers. Growers and livestock farmers need the right financial and policy framework if they are to compete in a volatile global marketplace, it warns.

The government argues that there will be grants to support agricultural productivity. And it has promised to help create a viable futures market for agricultural commodities. It has also reserved the right to intervene if there is a crisis in the marketplace – much as the EU does now.

But these measures are likely to be limited in their scope. The Agriculture Bill suggests such support is likely to last only until 2028 or 2029. There is also a big question over the budget for the new policy, with no guarantee it will match current public expenditure on agriculture.

For many farmers, the coming decade will be a time to shape up or ship out. Direct payments make up more than half the income on many farms. Those unable to adjust to life without them are already being advised to consider the offer of a lump sum to leave the industry.

Using a final financial incentive to encourage the older generation to retire is likely to go down well with younger and ambitious farmers keen to get on. But others will see it as an insult and a threat to a cherished way of life that has lasted generations.

Michael Gove clearly wants farming to be more of a meritocracy – standing on its own two feet rather than being propped up by subsidies. But it is important that the transition is properly managed and farmers are given a chance to thrive after public support is withdrawn.

JOURNAL : Farmers Weekly

Badger culling, which aims to prevent the spread of bovine TB, has started across England for a sixth consecutive year, Farmers Weekly understands.

An industry source close to Defra said the badger cull had restarted on Monday, 10 September across many of the existing 21 zones.

The source told Farmers Weekly that Natural England was set to announce the approval of culling licences for 10 new zones.

See also: Analysis – is the badger cull in England working?

These include Avon, Berkshire, Derbyshire, Oxfordshire, Hampshire, Shropshire, Staffordshire, Warwickshire as well as parts of Wiltshire and Devon, two counties where culling licences are already in place.

“Progress has been really good,” said the source. “We are getting to the stage where the boundaries are being covered and we are starting to get successful control of badger numbers.

“The results are tremendous. We have seen a big reduction in the numbers of new herd outbreaks, but also an even bigger reduction in the number of reactors being taken.”

New culling licences

Defra is expected to confirm later this week on its website that the government had granted new culling licences for 2018.

A Defra spokesperson said: “Bovine TB is a slow moving, insidious disease which presents many challenges.

“There is no single measure that will provide an easy answer and that is why we are pursuing a wide range of interventions from cattle testing and movement controls to improving farm biosecurity, and a cull of badgers where they are linked with herd breakdowns.”

The government says bovine TB is the “greatest animal health threat to the UK”. Dealing with this disease costs taxpayers more than £100m each year.

## En route to World Routes

Over the last year alone more than 33,000 cattle had to be slaughtered in England, causing devastation and distress for farmers and rural communities.

## Cull expansion

Dominic Dyer, chief executive of the Badger Trust, said with 10 new licences in operation in 2018, more badgers could be killed in 2018 than the last five years combined.

“By the end of 2018 over 70,000 badgers could have been killed as a result of culling and if the policy continues to be expanded this will figure will exceed 150,000 by 2020,” he added.

Mr Dyer said large numbers of badger cubs and their mothers (sows) had died this summer as a result of heat exhaustion and being unable to get access to food – the ground has been too hard to get earthworms or water.

More badgers had also died on the road as they have been forced to move out of their territories in search of food and water.

Mr Dyer said expanding the cull following the heatwave risked “pushing the badger on the verge of local extinction”, especially in Gloucestershire, Somerset, Devon and Cornwall where culling has been taking place over the longest period.

## Farmers targeted

Meanwhile, animal rights activists have been posting pictures on social media of farmers allegedly involved in the cull alongside the words “badger killers”.

Mr Dyer said although the Badger Trust strongly opposes the culls, he could not condone any violence or intimidation of farmers. “We believe in peaceful protest. The Badger Trust has been very clear on this.”

The Animal and Plant Health Agency is set to publish a review of the results on the first four years of the badger cull later this autumn.

Population biologist and fellow of the Royal Society Sir Charles Godfray will soon publish the results of an independent review of the government’s 25-year strategy to eradicate bovine TB in England.

## JOURNAL : Farmers Weekly

Sugar beet processor British Sugar is warning this autumn’s harvest is set to be “much lower” than last year’s 1.37m tonnes of sugar due to a wet spring and very dry summer.

Britain’s 3,500 beet growers suffered from the cold and wet spring, with drilling only really starting in April, and many growers expect the start of the beet harvesting campaign to be delayed to allow crops to bulk up.

Sugar production rose sharply for the 2017 harvest of 1.37m tonnes of sugar, extracted from about 8.9m tonnes of beet, compared with the previous year’s crop of 900,000t of sugar, but production for this next processing season is set to fall.

“Next year’s production is expected to be much lower, driven by reduced beet yields as a consequence of late drilling caused by the wet spring weather followed by the unusually dry summer,” the group said.

See also: Video: Sugar beet drilling starts as growers play catch-up

Sugar beet growers saw record beet yields from the 2017 harvest of 83.4t/ha, beating 2014’s previous record of 79.8t/ha, but yields this year are likely to be down with the beet area largely unchanged at about 105,000ha

The record overall sugar beet harvest was in 2014, when the group produced 1.45m tonnes of sugar from 116,000ha.

### Campaign start

The sugar beet harvesting campaign is set to start soon, with British Sugar's four plants – Cantley and Wissington in Norfolk, Bury St Edmunds in Suffolk and Newark in Nottinghamshire – gearing up for processing.

Last year's campaign started more than a week early on 14 September due to the big beet crop, but this season the start is likely to be slightly delayed to allow crops more time to put on weight.

The crop update came as British Sugar's parent company, Associated British Foods – which is the world's biggest sugar company, with interests in Spain, China, South Africa and the UK – issued a trading update for the 52-week period to 15 September, ahead of its full-year results on 6 November.

The company said the adverse effects of lower European Union sugar prices on its sugar business would be more than offset by strong performances from its Primark, grocery, agriculture and ingredient businesses.

### JOURNAL : Farmers Weekly

Planting discounts are on offer for new and existing growers of miscanthus to help meet the demand of the growing market.

The UK's largest producer group Terravesta, which has long-term, fixed price contracts to grow and sell miscanthus with more than 300 farmers, has launched the offer for spring 2019 planting.

Miscanthus is a low-maintenance perennial energy crop, which is harvested every spring and has the potential to yield 12 to 17t/ha. Once the crop is at mature yield, the company says the grower can earn in the region of £900/ha net margin.

The discounted pricing strategy is as follows (per ha):

£1,275 = 0-19ha

£1,250 = 20-39ha

£1,225 = 40-79ha

£1,200 = 80-99ha

£1,150 = 100ha+

The current base price is £1,350/ha.

See also: How to unlock profits from marginal fields with miscanthus

The price includes the rhizomes (piece of an existing plant's root, from which a new plant can grow) and their delivery, loan of planter, a planting tutorial and consultancy services.

The grower must cultivate the land to achieve a 10-15cm depth seed bed, provide a tractor to pull the planter, and provide labour to operate the tractor and planter.

Autumn muck spreading and ploughing is recommended before generating a fine tilth as close to planting as possible. The better the seed bed, the quicker the miscanthus will establish.

### Growing opportunity

Miscanthus provides a good opportunity for arable growers with unprofitable fields that are difficult to crop, because it will grow on virtually any soil type up to 120m above sea level.

## En route to World Routes

Terravesta claims there are numerous markets for the crop, which include long-term supply contracts with Brigg and Snetterton power stations, backed by 25-year agreements with the UK government.

It has also recently launched a domestic fuel range which is being trialled by Waitrose.

However, miscanthus involves a two-year wait for a significant return following a costly establishment, and has had a turbulent history.

Companies that dealt in the crop have in the past got into financial difficulty, huge player power station Drax cancelled its order and the government ended its support for the Energy Crops Scheme.

To get involved with Terravesta's discounted pricing structure, the company needs a signed term contract and establishment contract, a 5% deposit and a sustainability data return by 30 September 2018.

For more information contact Jacob Duce on 01522 731 873 or email him [jacobd@terravesta.com](mailto:jacobd@terravesta.com)

## Miscanthus facts

Low-maintenance crops with reliable returns

Grows on virtually any soil type up to 120m above sea level

Typically does not give full yield until third harvest

Higher oil content than straw and generates less ash, so competitive as a fuel

Can be grown independently as fuel for biomass boiler

Growers can opt to have it baled like straw or processed into pellets

Grown from a rhizome (piece of an existing plant's root, from which a new plant can grow) rather than a seed

JOURNAL : Farmers Weekly

A high-input strategy for crop protection products is generally essential in order to hit top yields in high-disease-pressure situations, but one grower has set out to prove this does not have to be the case.

This season, disillusioned with this high-input, high-output strategy, Cornish grower Nick Dymond trialled growing a crop of winter wheat with zero chemicals, and achieved 9.2t/ha – just shy of the yield “ceiling” in the area due to septoria pressure.

Encouraged by the results, Mr Dymond is now scrapping his full chemical programme in favour of a low input approach, instead focussing on nutrition.

See also: How one farmer slashed his fertiliser and fungicide use in wheat

## Trailblazer

Name Nick Dymond

Problem being solved Growers in high disease areas are not seeing the yields to justify the high fungicide spend, and want to try alternative methods of combating disease.

Approach Completely cutting out fungicides in favour of completely meeting the nutritional needs of a crop so it is more able to withstand disease.

Inconsistent yields

## En route to World Routes

Mr Dymond contract farms 406ha near Truro, of which 162ha is combinable cropping and the rest is in maize, grass and brassicas.

Being in the wetter West, where septoria and mildew are prevalent, Mr Dymond's total chemical spend is traditionally between £250-£270/ha, but top yields of 10t/ha were only being achieved one year in six or seven.

"Yields of 7-8t/ha is breakeven around here; 10t/ha provides a margin, but it's too difficult to consistently hit," he says.

But static yields and the struggle to stay profitable are only part of the issue. "It isn't just about profitability. As I get older, my goals have changed – I'm increasingly disappointed with the state of human health.

"What we are doing is probably degrading soils and there is the increasing amount of active ingredients being used, which is not far beyond the realms of reason to fear that it is causing a negative impact on human health.

"I'm not organic, I'm very much a conventional farmer, but like so many non-organic growers, I feel this route is unsustainable."

## Farm facts

406ha pig and arable farm near Truro, Cornwall

162ha in combinable crops, growing winter wheat and winter barley

Min-till for eight years, typically using a McConnel Discaerator and a KRM cultivator drill. Looking to reduce tillage further, but no-till is not an option

Instead, Mr Dymond has teamed up with independent agronomist Will Iliffe to trial an alternative approach based on the work of Australian agronomist Graeme Sait, using plant nutrition to combat disease.

Rather than firefighting with chemistry and routinely applying one or two nutritional elements, more money is spent on conducting comprehensive soil tests and addressing any issues before planting.

Throughout the growing season, leaf sap testing reveals the nutritional needs of the crop, allowing specific nutrients to be applied before deficiencies weaken the plant.

"The idea is to keep them robust, the theory being disease will pass over a stronger crop in favour of a weaker one."

This means total spend for the trial was only reduced to a minimum of £200/ha, generating a margin of £50-£75/ha.

But Mr Dymond says the aim of the trial is not really to improve margins and increase profitability.

"The more I read about people who concentrate on soil health, the more I realise that profitability takes care of itself.

"If you do what feels right, providing that is working with nature, then profitability falls into place.

"The theory of profitability centres around cashflow anyway, but as soon as you start farming around the environment and making long-term decisions and investments in the land, then there often is no hard-and-fast figures to put on a spreadsheet for what that is worth. It is hard to quantify."

## The trial

Three different approaches were trialled across 12ha using feed wheat variety Graham, which has a high resistance score to septoria.

1. Full chemical approach
2. Reduced chemistry plus full nutrition

### 3. Zero chemistry plus full nutrition

With the use of just one pre-emergence herbicide the zero-chemistry approach crop yielded 9.2t/ha, leaving the full chemical approach trailing at 8.7t/ha and smashing the original target of 5t/ha.

While the unusually dry and hot weather this summer meant the septoria risk was undoubtedly lower overall, Mr Iliffe says it did peak at two points; early on in the season before the weather dried up and again in early June.

“We didn’t know where this was going to go. Early on I was concerned about the level of septoria, but we got that under control,” Mr Iliffe says. “I’m absolutely over the moon with the results.”

<https://infogram.com/zero-chemical-wheat-1h984w8090vd4p3?live>

#### Nutrients

Bam Lactic acid bacteria and purple non-sulphur bacteria plus beneficial yeasts and microbial exudates

Manganese

Dia Life Diatomaceous earth

Fast Folvic – fulvic acid

Trio Calcium, boron, magnesium + nitrogen, potassium

Photo Finish Potassium silicate

Triple 10 Complex mix of NPK + sulphur, iron, zinc, manganese, calcium, boron, selenium, copper, molybdenum

Tri Kelp Mix of three growth-promoting seaweed species – laminaria, sargassum and ascophyllum nodosum

The yield is even more impressive, he explains, as the reduced and full chemical trials were carried out on 9ha and 10ha, respectively, compared with just an 0.8ha field for the zero-chemical approach, so should have yielded more through the sheer size of the field and less headland.

The zero-chemical approach also produced 25% more straw in the absence of plant growth regulators, but despite this increased height, the crop didn’t suffer any lodging, which Mr Dymond believes is down to the correct nutrition.

“We were concerned about everything. Nobody had ever done something like this and we warned the owners it could have produced 2-3t/ha – it could have been a complete disaster,” he says.

#### Next season

Mr Dymond is so impressed with the results from just one year he plans to drop the full chemical approach for next season and instead run the trial across his full 200ha of wheat, split equally between zero-chemical and reduced chemical approaches.

“It might be, but I don’t think it was a fluke. Either way I don’t want to keep using that much chemical,” he says.

The trial has sparked a huge amount of interest among local farmers, many of whom have been to see the trial and now plan to conduct their own.

Mr Dymond plans to continue with the reduced-chemistry and full-nutrition approaches, despite this providing slightly less margin than the zero-chemical approach, as most farmers in high-disease areas feel they have to use some chemicals.

“There is huge interest down here in trying to use organic ideas without having to sacrifice output and without the transition period.”

## En route to World Routes

The duo also plan to reduce the amount of nitrogen applied in the trial this coming season by 20-25% to instead focus on micronutrients.

Mr Iliffe says this will have the added benefit of making the crop more weather resistant, as nitrogen increases water uptake by the plant and can leave it vulnerable.

Are you a Trailblazer?

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 series, contact the arable editor at [richard.allison@reedbusiness.com](mailto:richard.allison@reedbusiness.com)

JOURNAL : Farmers Weekly

Farmers are being warned to keep written partnership agreements to minimise the risk of expensive and stressful will disputes.

It follows a court case involving two dairy farming brothers from Derbyshire, who disagreed about what assets were part of the farming partnership following the death of their father.

The court heard that Ben Wild died in 2003 and the farming partnership continued between his two sons, Malcolm and Gregory Wild, until 2016, when relations broke down between them.

See also: Family court disputes highlight inheritance issues

Gregory Wild believed the farm and bungalow to be a part of the farming partnership, therefore said it should be subject to the partnership's winding-down proceedings.

However, his brother Malcolm Wild, his wife Abigail and his mother Jean argued the farm and bungalow had passed to Jean as specified in Ben Wild's will and were not part of the assets of the partnership.

They argued that the late Mr Wild owned them in his own right before entering into a farming partnership with his son and that he did not bring them into the partnership.

Malcolm and Abigail had also invested significantly in the bungalow's renovation, which during the case was valued at £285,000.

However, another point of contention was how much of the renovation's budget had come from the farming partnership, which Gregory argued was a majority.

Accounts for the partnership and mentions of the farm and bungalow were patchy as records had been lost or never kept.

High Court

After High Court hearings in July and August 2018, Judge Eyre QC ruled that the £1.65m farm and bungalow were to be included in the deceased's estate rather than part of a farming business.

Heather Roberts, an associate in the will, trust and estate disputes team at Irwin Mitchell Private Wealth said: "This was a complex dispute that involved deciding whether the farm, and by extension the bungalow that defendants Malcolm and Abigail Wild lived in, was a part of the farming partnership or part of the deceased's estate.



## En route to World Routes

"It was a good outcome for the defendants as the judge ruled the farm and bungalow were indeed belonging to their mother Jean Wild and that they had a proprietary estoppel claim against the bungalow, which has been their home for decades.

"However, the dispute could have been avoided had the family made sure that all assets were clearly accounted for either in a will or a formal partnership agreement decades earlier."

Ms Roberts said farming families and businesses should always have partnership agreements and assets formalised.

"Other families that have a family business and have an understanding that it may pass to them upon the death of their parents should look into drawing up a formal agreement to avoid this situation – the more complex a structure, the lengthier and more costly the dispute could be."

JOURNAL : Farmers Weekly

Animal and animal products exports to many countries the UK currently trades with may grind to a halt in the event of a "no deal" with Brussels, as Defra has failed to make sufficient progress in some of its Brexit preparations.

According to a new report from the National Audit Office (NAO), the risk of Defra not delivering everything it had originally intended for a no-deal scenario is "high".

See also: No-deal Brexit risks flood of imported chicken

In particular, it points to animal and animal product exports, valued at £7.6bn.

"For the UK to continue exporting, it must comply with international health requirements and all exports must be accompanied by an export health certificate," it says.

This means that, outside the EU customs union, Defra will need to negotiate with 154 countries to introduce 1,400 different UK versions of current EU export health certificates.

"Defra is focusing on reaching agreement with 15 of these countries, which it estimates account for 90% of total exports, but will not reach the other 139 by March 2019," says the NAO.

"It has accepted the risk that UK firms exporting to countries where agreements are not reached may not be able to do so for a period after EU exit."

Trade with EU

The NAO also points to the lack of progress made in recruiting enough vets, needed to process export licences for trade with the EU in the event of a "no deal".

"Without enough vets, consignments of food could be delayed at the border, or prevented from leaving the UK," it says.

Defra had intended to start engaging with the veterinary industry in April 2018, but had been prevented from doing so by the Department for Exiting the European Union. It now plans to launch an emergency recruitment campaign in October, and could also use non-vets to check records and processes.

The British Veterinary Association (BVA) described this admission as "deeply concerning".

"Changes to veterinary certification could have serious consequences for the UK's ability to trade animal products, which could have a devastating impact on our agricultural industries," said BVA president John Fishwick.

Chemical reaction

## En route to World Routes

Beyond these areas, the NAO also points to potential problems with chemical exports from the UK - worth £17bn annually - which will depend on future participation in the European Chemicals Agency.

"Without this, UK chemical manufacturers would no longer be able to export products to EU member states as registrations of products would cease to be recognised," it warns.

To recover market access, they will need to re-register their products on the EU's system via an affiliate located in an EU member state.

"This is a lengthy process that cannot be started until the UK has left the EU."

## Positives

The report does highlight some positives, however. For example, Defra has secured Treasury approval for £320m of spending in 2018-19, has started to build new IT systems in readiness for Brexit, has recruited over 1,300 new staff and published consultation documents on agriculture and fisheries.

A Defra spokesman said that, since the NAO report was written, the department had continued to reprioritise resources, expand its workforce and prepare for a range of Brexit scenarios.

"Our work will mean that environmental, welfare and biosecurity standards will continue to be met in a way that supports trade and the smooth flow of goods."

But, according to Meg Hillier, chair of the public accounts committee: "Defra's planning was initially too optimistic and, as a result, it has missed a large chunk of milestones."

"We are rapidly running out of time for Defra and other departments to finish planning and deliver completely new services and functions, and a huge volume of legislation."

In numbers:

£320m Defra's approved EU exit spending

1,307 Staff recruited for EU exit work

151 Statutory Instruments Defra needs to pass in 2018

55 Number of Brexit work streams Defra responsible, out of 319 in total

154 Number of countries Defra needs to agree export health certificates with

## JOURNAL : Farmers Weekly

Farm subsidies in England will be phased out over seven years, ending in 2027, under plans outlined in the government's long-awaited Agriculture Bill.

Direct payments will be replaced with a new system of "public money for public goods", largely based on rewarding farmers who undertake environmental measures.

But there are no guarantees that money made available under the new system will match the total amount currently paid to farmers as direct payments.

See also:

Reaction: Agriculture Bill falls short, say farm leaders

More detail on Agriculture Bill: 'Golden handshake' to quit farming

Analysis: How Michael Gove's Agriculture Bill will reshape UK farming

Legislation to deliver the new system after the UK leaves the European Union is being introduced into Parliament on Wednesday (12 September).

It follows the government's Health and Harmony consultation earlier this year.

The Agriculture Bill suggests that direct payments in 2019 and 2020 will be made on much the same basis as now – subject to simplifications where the government deems possible.

#### Seven-year transition

From 2021, however, direct payments to farmers in England will start to be phased out – disappearing completely by 2027.

Defra secretary Michael Gove said the seven-year agricultural transition period would give farmers time to adjust as they planned for the future.

Mr Gove said: "The introduction of the Agriculture Bill is a historic moment as we leave the EU and move towards a brighter future for farming."

The government says direct payments will be "delinked" from the requirement to farm the land for the duration of the transition period.

Farmers will be able to use the money to invest in their business, diversify their activities or else retire from farming and give way for new entrants into the sector.

See also: How to prepare and manage your farm business for Brexit

Most farmers will see some reduction to their payments during the transition, although those who receive the highest payments will see bigger reductions initially.

The government says this will free up funds to invest in public goods.

#### New system

Rather than direct payments, the new system will see farmers paid for "public goods", such as better air and water quality, soil health and higher animal welfare standards.

Other public goods include access to the countryside and measures to reduce flooding.

A new Environmental Land Management (ELM) scheme will begin next year, with Defra working with farmers to design, develop and trial the new approach.

Mr Gove said: "After nearly 50 years of being tied to burdensome and outdated EU rules, we have an opportunity to deliver a Green Brexit.

"This Bill will allow us to reward farmers who protect our environment, leaving the countryside in a cleaner, greener and healthier state for future generations.

"Critically, we will also provide the smooth and gradual transition that farmers and land managers need to plan ahead."

#### Other measures

The new system will be underpinned by measures to increase productivity and encourage farmers to invest in new technologies.

## En route to World Routes

This will include funding for farmers who collaborate on research and development projects into topics such as soil health or sustainable livestock farming.

The government argues that the current system of direct payments is ineffective and pays farmers based on the total amount of land farmed.

It also argues that the payments are not linked to any specific public benefit.

It says direct payments are skewed towards the largest landowners, with the top 10% of recipients receiving almost 50% of total payments and the bottom 20% receiving just 2%.

Year

What will happen

2019

Direct payments continue largely on same basis as now

Countryside Stewardship agreements continue to be signed

Higher Level Stewardship agreements extended as required

Environment Land Management (ELM) scheme tested

2020

Direct payments continue with simplifications where possible

Higher animal welfare standards defined and agreed

Countryside Stewardship agreements continue to be signed

Higher Level Stewardship agreements extended as required

ELM scheme tests and trials continue

2021

First year of progressive reductions to direct payments

First pilots for ELM scheme

Animal welfare pilots begin

Targeted investment in R&D and innovation

2022-24

Progressive reductions to direct payments continue

ELM scheme pilots, tests and trials continue

Final Countryside Stewardship agreements start

Higher Level Stewardship agreements extended as required

2025-26

## En route to World Routes

ELM scheme fully up and running

Animal health and welfare measures fully up and running

Targeted investment in R&D and innovation (up to 2029)

2027

End of seven-year transition period (last year of direct payments)

2028 onwards

No more direct payments

New system fully in place

JOURNAL : Farmers Weekly

Cambridgeshire grower Edward Davison picks out the best and worst points of his Sky Easy Drill, which he bought in 2016 when his crop yields were hammered by a high weed count.

See why he moved to a no-till drill, how the drill has performed and minor adjustments he'd like to see.

Farm facts

Davison and Co, Childs Farm House, Rogues Lane, Elsworth, Cambridge

Acreage and soil type 600ha of heavy clay/loam

Crops grown OSR, winter wheat and spring malting barley grown for Budweiser

What drill are you using?

We run a Sky Easy Drill Fertisem 6m, which I bought from Cambridge Farm Machinery at Cereals 2016.

I knew the drill would let me seed into both unmoved and cultivated soil and it came with the optional micro-granule hopper, which gives me the option of drilling multiple products using three different application rates.

See also: Tom Hounsfield's Sumo DD

Why did you change to a no-till drill?

I sold the plough in 1998 and we haven't ploughed a furrow on the farm for 15 years. In my opinion, ploughing has to be match-standard to have the desired effect, otherwise it simply gives dormant weed seeds a new life.

Our problems reached a head in the summer of 2015 when we had a weed count that showed a seed head population of 700 plants in the worst fields. That harvest, yields were down by as much as 2t/ha, so something had to change and I went drill shopping.

Sky Easy Drill

Year 2016

Width 6m

Spacing 16.6cm

Coulter Disc

## En route to World Routes

Max coulter pressure 250kg

Hopper 2,450 litres, 1,650/800 litres when split

Metering RDS

Power 250hp

Drilling speed 10kph

Output 40ha per day

Price paid £80,000

How does it work?

There are three metering units – two for the split main hopper and one for the micro granules. From the two distribution heads, I can switch off each row individually for wider spacing or change individual coulters to drill different products.

Each notched disc has two coulter outlets for the different products. That means that when I drill cover crops, the main hopper will have spring beans applied at 40kg/ha, the rear hopper has arbuscular mycorrhizal fungi blended with buckwheat at 16kg/ha and, in the micro hopper, is a phacelia and berseem clover blend at 5kg/ha.

The coulters work in pairs that can operate at different depths to their neighbours. Depth is adjusted manually from the front press, while the rear steel press wheels are angled to close the slot and pressures are tweaked hydraulically.

How has it performed?

Last autumn I drilled a companion crop of clover and phacelia with the oilseed rape, as well as laying down some fertiliser at the same time. I didn't have to spray a drop of insecticide during the autumn and the pigeons have stayed away, too.

The phacelia acted as a shield for the OSR before being killed off by the frosts, which left room for the crop to get growing.

The clover remains in the ground after harvest, acting as a weed suppressant and living mulch before I drill winter wheat straight into it. In the long term, this should hopefully minimise the number of herbicide sprays on stubbles.

The calibration is great as guide settings are pre-loaded into the cab box to give a rough idea of the settings for each crop. It's still a manual bag-holding process under the hopper to fine-tune it, though.

I drilled 145ha of oilseed rape and a companion crop last year. There was only around 500kg of companion crop seed at the start and, by the end of the job, I was left with less than a teacup full in the hopper.

The drill has covered over 1,800ha so far and I haven't had to purchase any wearing metal. However, Sky recognised a problem with the original discs and have replaced them for larger 415mm ones.

What could be improved?

There aren't many bad points, but the standing area around the hopper is tight – especially as the micro granule hopper is mounted up there – and the steps are very steep, which makes coming down awkward.

On the box, the on/off switch is far too easy to hit – early on I did this a few times and the shut the drill off. It was a challenge to know where I stopped but there's now some tape over the switch to prevent this happening.

## En route to World Routes

I've also installed a couple of cheap cameras in the main tank to keep an eye on the seed level. The readout on the drill screen is pretty accurate, but I would like to see it compatible with John Deere's AMS.

If I was being really critical then the depth control could all be hydraulic, but that's me being lazy rather than a genuine bugbear.

The only other catch is that Sky doesn't make a 9m model. It would fit with my CTF system and one has been talked about. It's still in the design stages at the minute.

Likes and gripes

Likes

Easy calibration

Metering accuracy

Minimal soil movement

Long-lasting wearing parts

Gripes

Steep steps

Limited standing area around hopper

On/off switch too easy to hit

Partly mechanical depth control

JOURNAL : Farmers Weekly

Henry Muntz reveals how his Weaving GD no-till drill has performed across his farm of Warwickshire clay loam.

What drill are you using?

We've got a 4.8m trailed Weaving GD that arrived on the farm ready for autumn planting in 2016.

It has an angled double disc for cutting the slot and planting the seed and a rubber tyre packer for closing the ground afterwards.

The main hopper will comfortably hold 2t of wheat and it came with a Stocks applicator that we use to put ferric phosphate slug pellets in with the seed.

Farm facts

Farm address: Mows Hill Farm, Tanworth in Arden, Warwickshire

Acreage and soil type: 550ha (385ha arable) of mainly Warwickshire clay loam with some red marl

Crops grown: Wheat, oilseed rape, spring oats and linseed

A second no-**fills** Delimbe seeder unit was also added so that we can drill cover crop mixes with a variety of seed sizes such as phacelia, buckwheat, vetch, oats, mustard and linseed.

We drill using Trimble-based auto-steer and we always work at an angle to our tramlines.

See also: Driver's view: Tom Hounsfield's Sumo DD drill

## En route to World Routes

Why did you change to a no-till drill?

We'd used a 6m Vaderstad Rapid for years and it had got to the stage where we needed to replace it or give it an expensive overhaul.

That was a good excuse to have a look at other options, so we looked into the Cross Slot and asked someone to plant a trial field for us. It looked poor to start with, but ended up being one of our best crops.

That's when we decided to give no-till a go.

We couldn't justify the price of the Cross Slot and the power needed to pull it so after a bit of shopping around we decided to try a Weaving GD.

How does it work?

The coulter assembly is has a double disc mounted at a 25deg angle that cuts a slot and plants the seed. The whole unit pivots so it's got a bit of give for going round slight corners – we reverse into most though.

The larger outer disc cuts the main slice in the soil, while the smaller inner disc forms an opening for the seed to be placed. Finally, the soil is firmed down onto the seed by a single press wheel.

Drilling depth is controlled by the rear press wheel and is adjusted using a pin-and-hole arrangement. There's also a hydraulic pressure system for each coulter.

Weaving GD 4800T

Year 2016

Width 4.8m

Spacing 167 cm

Coulters Angled disc

Max coulter pressure 200kg

Hopper 2,500-litre

Metering control RDS

Power used 335hp

Drilling speed 8 to 12kph

Output 40ha per day

Price £56,600

How has it performed?

We've drilled about 800ha so far and its performance has been excellent. We've got some pretty heavy clay ground in places and it's actually given some of its best results on these.

Beans were the only crop that really struggled with the system, probably as the ground was too hard for them to get their roots down properly.

One big bonus is the fact it gets the crop in the ground much more quickly and cheaply than we could with the Vaderstad Rapid.



## En route to World Routes

At the moment we're still using the same 330hp Case Magnum 335 – which is far more powerful than we need – but because we're only running it at 1,200rpm, fuel use is down to 2.3 to 3-litres/ha.

The drill is also allowing us to experiment with growing cover crops and catch crops, which are helping us to build fertility and reduce blackgrass pressure.

On top of that, we're planning to put some tillage radish in to lift some of the compacted areas without deep loosening.

We've had very few problems with it mechanically, other than a faulty alarm on the RDS control box and a ram seal on the coulter pressure ram.

What could be improved?

One of the worst things is how it handles on the road. It's got a sort of numb feel to it and it transfers weight on and off the rear of the tractor so you end up bouncing along like a nodding donkey.

Next year we might get around the problem by fitting a Scharmuller ball-and-spoon hitch so there's a bit more articulation.

It also tends to hang down when going across slopes, and although you can push the wheels out wider to counteract this, it's not particularly effective.

We also don't like the fact that it dribbles seed when you lift out on the headland. This is largely due to the fact that the coulters are so much further back than the metering unit.

Preventing the press wheels from getting punctures would be another improvement. I'm not sure if solid wheels would do the job properly, but they sound like a good idea to me.

Likes

Simple and low maintenance

Ability to drill through thick cover crops

Everything is accessible and easy to calibrate

Low soil disturbance

Gripes

Horrible on the road

Dribbles out seed on headland

Press wheel punctures

Paint isn't brilliant

JOURNAL : Farmers Weekly

John Mair from March, Cambridgeshire, gives us the low down on his Ma/Ag no-till drill. He reveals the benefits to soil and cost, tells us how it has performed, and what he'd change.

Farm facts

Mair & Sons Farmers, Manor Farm, Doddington, March, Cambridgeshire

## En route to World Routes

Area and soil type 330ha of heavy clay to medium loam

Crops grown Winter wheat, spring barley, spring beans, spring oats, canary seed and millet

See also: Swithin Waterer's Sly Boss Drill

What drill are you using?

It's a 6m SSP disc drill from Italian manufacturer Ma/Ag. We'd previously had a Sim-Tech tine drill, but wanted a machine that caused less soil disturbance at establishment.

I first saw the Ma/Ag at Cereals and, after researching all the other direct disc drill options, we were the first in the UK to buy one.

A 4m version was delivered in 2013 and we had the latest 6m delivered last spring. It's pulled by a Challenger MT765B – not for the horsepower requirement, but its lighter footprint on tracks.

Ma/Ag SSP 60 TRC specs

Year 2017

Width 6m

Spacing 182mm

Coulter Disc

Max coulters pressure 250kg

Hopper 2,500 litres

Metering RDS electronic

Power requirement 200hp+

Drilling speed 8-16kph

Output 40ha per day

On-farm price £78,000

Why did you change to a no-till drill?

The farm used a plough-based system for many years, but it was very expensive in diesel, metal and general wear and tear on the machinery, so we decided to move to minimum tillage in 2009.

Once our soil structure had improved, we gradually moved into a low-disturbance drilling system. We now use a Tilso Rake & Roll after harvest to spread the straw evenly and encourage a weed chit.

This is followed by a low disturbance Tilso subsoiler, before spraying off with glyphosate just ahead of drilling.

I don't believe there are many soils that truly self-structure, so the subsoiler lifts any compaction without moving much soil and gives us peace of mind that water will get away over the winter.

In addition to cost savings, there was also an environmental case by improving soil health, and it has helped us get on top of the blackgrass. We have seen soil biology improve, with worm counts going up and residue broken down much faster.

How does it work?

## En route to World Routes

The drill has a vertical 450mm serrated opening disc, which works about 25mm lower than the smaller diameter seeding disc that follows. Seed is placed in the side of the slot by a second angled disc and fertiliser goes in beneath the seed.

There are three pressure settings on the 33 coulters, with up to 250kg available from the springs. Depth control is on individual self-cleaning 150mm-wide rubber press wheels, which close and firm up the slot.

The drill has RDS electronic metering, which has the capability to run variable-rate seeding, but I don't use that at present. I know where our blackgrass patches are and increase or decrease seed rates manually on the control box when required.

The tank takes about 1t of seed and 0.5t of fertiliser and we're putting a starter fertiliser mix down the spout with most of the spring crops.

How has it performed?

The fact that the leading disc works below where the seed is placed means there is some drainage away from the seed, which is an advantage if wet conditions arrive soon after drilling.

Having 250kg coulters pressure and simple depth control were some of the features that attracted us to the drill. The transport wheels also lift right off the ground to put all the drill's weight on the coulters.

We have fields that are very heavy at one end and light at the other, so accurate seed placement can be difficult across soil types and the drill places the seed exactly where you want it to be. I can't stress the importance of getting it at the right depth for even emergence.

It also disturbs very little soil, so you get minimal germination of blackgrass. Combined with later drilling in the autumn and spring, and the fact the 6m machine lets us drill everything quickly and wait for the right moment to go, it's helping us beat blackgrass.

What could be improved?

We have worked with Ma/Ag since 2013 when our first drill arrived and, since then, several changes have been made. The initial angle of the hopper was too shallow, so treated seed wouldn't run out the corners well, but that has now been rectified.

Fertiliser placement was also added and the bout markers have been strengthened.

The only issue I have now is that due to the length of the drill – the two rows of discs being separated either side of the transport wheels to the front and back – is that there's a noticeable delay on the back row when moving into work out of corners.

Likes and gripes

Likes

Consistent seed depth across soil types

Easy adjustment of depth control

Very low soil disturbance

Self-cleaning coulters and press wheels

Gripes

Length of machine

## En route to World Routes

Transport wheels could be wider for travelling on headlands

Seed and fertiliser hopper could be bigger

Fertiliser hopper difficult to clean out due to tight access

JOURNAL : Farmers Weekly

Leicestershire farmer Steve Heard imported and assembled his own John Deere no-till drill – he gives us his verdict on how it has performed, what he most likes about it and what he would improve.

Farm facts

Three Gates Farming, Kibworth Road, Three Gates, Leicestershire

Acreage and soil type 1,450ha of predominantly clay loam

Crops grown Winter wheat, oilseed rape, spring oats and spring beans

What drill are you using?

Our drill is custom-built, 9m wide and based on an American-spec John Deere 1890. However, it has the same coulter assembly as the 750A, which has been in the UK (at a maximum width of 6m) for quite a while.

We shipped it over from the States, before I dismantled and rebuilt it to fit within UK road limits and with a working width of 9m. It wasn't an easy job, as the original drill was 5m wide folded and had different row spacings.

The other issue was that the Americans run the coulter bar as a trailed unit and I wanted the 6,000kg hoppers to sit on top to provide extra downforce. In the end, I had to fit a couple of rams and nitrogen accumulators that transfer the weight on to the drilling rig once the coulter bar is unfolded.

We seem to keep finding ways to modify it – most recently we added the spoked wheels and a little scraper to prevent the wheels clogging in wet ground.

See also: Lionel Shaw's Horsch Avatar

John Deere 750a (US 1890 conversion)

Year 2014

Width 9m

Spacing 16.6cm

Coulters Disc

Max coulter pressure 260kg

Hopper 6,000kg – split 3,500kg/2,500kg

Metering Wheeled with variable rate transmission

Power 300hp

Drilling speed 12kph

Output 50-60ha per day

Price paid £56,000 plus many hours designing and building

## En route to World Routes

Why did you change to a no-till drill?

We used to plough roughly 70% of the farm annually and drill with a 9m Vaderstad Rapid, but in 2008 we stopped ploughing and bought a brace of Sumo Trios to improve the soil structure and reduce establishment costs.

It was part of a 10-year strategy to get rid of the Vaderstad and move to direct drilling, but in 2012 our hand was forced – the blackgrass was taking hold, so I started shopping around for a direct disc drill.

How does it work?

The front discs are at an 11deg angle, with seed and fert coming down one pipe from the two hoppers via separate metering units so we can apply two products at different rates.

The depth wheel next to the disc is spoked so it doesn't bung in wet conditions and is fitted with RID (reduced inside diameter) tapered tyres to avoid compacting the side of the seed trench.

A custom slim rubber wheel forces the seed down into the soil and gives decent seed contact. We tried running the drill without these, but germination was much slower and the blackgrass got a head start.

The closing spiked wheels have been modified from US versions and we have perfected these in-house to give the best slot closure possible.

When the drill lifts out of work on the headland it puts the weight on the 14 wheels that surround the frame to limit compaction, leaving the two large wheels almost in the air.

How has it performed?

Its workload has gradually been ramped up since arriving in 2014 – it has now covered about 2,600ha and recently had its first replacement metal.

We aren't totally no-till and do often scratch the top with a Vaderstad Carrier to get a chit. We've tried growing some catch crops after the oilseed rape to help with weed control, but found these held on to the moisture too well and caused slug issues.

We've also used it to drill crop trials with and without fertiliser and there has definitely been a reduction in blackgrass since the drill arrived.

At 16.6cm centres, Deere's system keeps soil movement to a minimum, gives an even drilling depth and allows us to drill into any condition and into any surface, so we can be flexible about our approach to each field.

What are the bad points?

We do have to travel a bit slower – the Vaderstad used to rattle along at up to 18kph, whereas we find the Deere's coulters start to bounce beyond 14kph.

In some of the smaller fields with snake-like headlands we've found that the closing wheels don't follow the slot very well on the tighter bends and can leave it exposed.

For a while we kept getting a clutch error, which turned out to be the variable-rate motor not engaging properly. We then found the fault in the wiring of a plug and haven't had an issue since.

As for spares, our local Deere dealer – Sharmans – has been helpful in sourcing parts from America if needed, usually in 48 hours.

Likes and gripes

Likes

Low disturbance

Even sowing depth across 9m

Drills into any conditions

Huge hopper capacity

Gripes

Lower speeds than the Vaderstad

Struggles to close slot when very wet

Closers don't follow around corners

Manual depth adjustment

JOURNAL : Farmers Weekly

Swithin Waterer of Halstead, Essex, explains why he opted to go no-till with a Sly Boss drill. He tells us how it has performed, what he likes best about it and what could be improved.

Farm facts

Waterers Farms, Martletts Hall, Halstead, Essex

Acreage and soil type 400ha with mixed topsoils over chalky boulder clay

Crops grown Oilseed rape, winter wheat, winter barley, spring barley, beans, vetch and cress for seed

What drill are you using?

It's a 6m trailed Sly Boss, which is built in France by Sly using a modified version of the Australian Boss angled disc coulter.

This is designed to work directly into a stubble or cover crop, but it will also run in cultivated ground, as long as you consolidate the surface first.

Mine is a fairly basic spec with a single hopper that holds about 1.5t of wheat. I drill using the Starfire GPS on my John Deere 6210R – there is a tramlining kit on board, but I usually drill at about 30 deg to my tramlines, which stay in the same place each year.

See also: Edward Davison's Sky Easy Drill

Why did you change to a no-till drill?

Up until last year I'd been farming 280ha with a neighbour and planting it with a 3m Mzuri strip-till drill. However, we then teamed up with another neighbour, upping the area to 400ha.

That was too much for us to cover comfortably, so we went in search of a wider one-pass machine. The Mzuri acts as a pretty good transition drill so it was a fairly easy and logical step to go to no-till.

We also hoped it would help us get on top of blackgrass by reducing soil disturbance and preventing the stuff germinating. We looked at a few different machines, including the John Deere 750A, Weaving GD and Sky Easy Drill, but when I saw the Boss coulter at Lamma in 2017 I was convinced it was the way to go.

Sly Boss

Year 2017

Width 6m

Spacing 16.7cm

Coulter Angled disc

Max coult pressure 240kg

Hopper 1,200-litre

Metering RDS

Power used 210hp

Drilling speed 11kph

Output Spot rates up to 60ha per day

Price paid £77,500

Price now £85,000

How does it work?

The coult assembly has a large-diameter angled disc at the front that cuts the slot and lifts the soil for the seed to be planted via a boot mounted on the side.

Slightly behind the disc is a larger-diameter sprung rubber wheel that, as well as cleaning the disc, puts the lifted soil back down on top of the seed.

There's then an angled press wheel at the rear, which finally consolidates the seed bed and acts as the seed depth control.

On the Australian version, depth and press wheel angle adjustment require a couple of spanners, but thankfully Sly has modified them to be tool-free and it's a five-minute job now.

How has it performed?

We've been impressed so far. We got it in autumn 2017 and most of the 400ha we've planted with it has established well. Yields haven't been that great this year, but that's more to do with the season than the drill.

Pulling a 6m machine at 11kph means we can cover the ground quickly and our John Deere 6210R handles it easily. I reckon we're only burning about 7 litres/ha drilling cereals, going up to about 9 litres/ha on hilly ground or when we push it in deep for planting beans.

Because the discs are angled, we haven't had any problems with hair pinning of straw into the slot and the coulter doesn't seem to block up when it gets a bit sticky on the top.

I'm not a purist no-tiller and I will continue subsoiling every five years or so. I also sometimes use a Kockerling cultivator pre-drilling at very shallow depth to encourage a blackgrass chit.

How could it be improved?

We've had a few little teething problems that needed ironing out. Early on we found the wings would creep up as we were working, which was a complete pain, and we've had a bit of trouble with the electronics talking to the metering system.

## En route to World Routes

This has caused some delays in the switching of seed delivery, leaving us with a few Skylark plots at the start of runs and some seed dribbling out on the headland at the ends.

But every time we've had problem, Sly has come out promptly, and these things are to be expected with a brand-new machine and concept.

We've also found that the open vents at the top of the cyclones (which allow the air to escape so the seed falls rather than getting blasted into the slot) can block with soil flicking off the rear press wheels in the wet.

One solution would be to put a bend on the top or a mesh guard, but it could be a sign that we shouldn't be going in those conditions.

Likes and gripes

Likes

Excellent seed placement

Minimal soil disturbance

No hair pinning of trash

Built to last

Gripes

Cyclones can block with debris

Dribbles out seed on headland

Minor electronic niggles

Beans bridging in coulter

JOURNAL : Farmers Weekly

Suffolk grower David Bird gives his verdict on the performance of the Primewest Cross Slot no-till drill. Find out how it works, its good points and what could be improved.

Farm facts: NB Bird and Son, Elmsett, near Ipswich, Suffolk

Acreage and soil type 385ha of Hanslope and Beccles series clay loams, plus 80ha contract drilling

Crops grown Wheat, triticale, winter/spring barley, beans, linseed and OSR (plus 1,995 fattening pigs)

What drill are you using?

It's a 5m Cross Slot built by Primewest in Gloucestershire using New Zealand-made openers.

We opted for a liquid fertiliser version with a 1,000-litre stainless steel Challis and Reed front tank and ordered a pair of Stocks Rotor-Meter hoppers feeding into the main metering unit venturis to apply small seeds and slug pellets.

See also: Steve Heard's John Deere 750A

We wanted everything to be capable of variable rate so we specified the TopCon X30 control screen, which provides blockage sensors and will deal with up to four different metering units. This year we're planning to add a third Stocks applicator for Avadex and companion crops.



## En route to World Routes

We also went for the Sumo coupling frame with 80mm ball-hitch that lets us turn that much tighter because the swivel point is put right out behind the tractor wheels.

Primewest Cross Slot

Year 2016

Width 5m

Coulters Disc/T-slot opener

Row spacing 20cm

Max coulter pressure 450kg

Hopper 2,450 litres, plus 65-litre Stocks hopper and optional 130-litre Stocks Turbo Jet 8

Metering Accord electronic unit and TopCon controller

Power required 370hp Case Magnum CVX

Drilling speeds 8-12kph

Output 30-40ha per day

Price paid £150,000

Why did you change to a no-till drill?

For years we'd been running a conventional non-inversion min-till system using Vaderstad TopDown and Carrier cultivators and a Rapid drill. It was a pretty dependable approach but we wanted to try and move away from chemical reliance and start looking more closely at improving our soil health.

One thing that has become really apparent is how important earthworms are as soil improvers and indicators of health, so if we've got good populations then generally it means we'll get reasonable yields.

Part of the process of moving towards lower chemical usage has included looking at cover and companion crops as a means of retaining nutrients and out-competing weeds, so we needed a drill that was capable of working reliably right through the year in all conditions.

How does it work?

The inverted T-shape slot formed by the Cross Slot disc and knife opener will nearly always get crops off to a decent start.

Because the seed is placed on a shelf above a shallow trench where the fertiliser goes, it doesn't get any scorch and when it's dry it has plenty of humid air around it in the slot. In the wet it doesn't tend to get water-logged, either.

The sheer weight of the drill – about 9.5t – means it will penetrate our Suffolk clays when drilling cover crops in mid-summer. However, we also went for Cross Slot's optional auto-downforce system to ensure even seed placement

A load cell on the rear row of coulters monitors downforce on the depth/closing wheels and alters the hydraulic pressure in the coulter carriage rams accordingly, so the discs cut into the ground at a consistent depth.

How has it performed?

We're always confident that the Cross Slot will put the seed in at the right depth and covered over with clean, trash-free soil.

## En route to World Routes

The only other way to establish crops as reliably would be with a plough and power-harrow drill but that goes against everything we're striving to achieve.

Our crop establishment costs are now somewhere around £65/ha, excluding rolling, whereas the previous system came in closer to £150/ha. That makes it significantly cheaper, despite the huge capital cost of the drill.

As for fuel, we're generally burning something around 13.5-litres/ha, which is about a quarter of what we were using.

That figure would be even smaller if we were using a lower-draft drill like a John Deere 750A and it would have been cheaper to buy, too. But we've ended up with the Rolls-Royce of machines which can reliably establish crops in the broadest range of conditions, in my opinion.

What could be improved?

The big downside of the Cross Slot is the amount of horsepower and the weight of the tractor needed to pull it.

The knock-on impact is the amount of diesel we burn, but it's still just a fraction of what we were using previously.

Due to the 450mm of vertical travel in the openers the seed pipes have to have a lot of movement in them.

This, coupled with retrofitted blockage sensors, means that some of the pipes have a tendency to sag and block.

The seed pipe routing could do with a bit of revision. At certain points where the drill folds the pipes get crimped and they don't all run downhill so there is a tendency for certain pipes to block.

That's not helped that in places the blockage sensors get knocked when you fold the drill up.

In an ideal world I would have load cells on every coulter and individual downforce adjustment but with 25 openers that would probably be prohibitively expensive.

Likes and gripes

Likes

Seed placed at a consistent depth without hair-pinning

T-shaped slot provides ideal growing conditions

Reliable establishment in wet and dry soil

Minimal weed seed disturbance – blackgrass only grows in crop row

Gripes

Requires a high-horsepower, heavy tractor

High capital cost

Seed pipes get crimped where the drill folds

Blockage sensors can get knocked when folding

JOURNAL : Farmers Weekly

Lionel Shaw runs a Horsch Avatar at Manor Farm, Luton, and explains his why he changed to a no-till drill, how it works and gives us his verdict on the machine.

Farm facts

## En route to World Routes

CH Shaw & Sons, Manor Farm, Butterfield Green Road, Luton

Acreage and soil type 440ha of clay flint to chalk, plus 360ha contracted

Crops grown Winter wheat, winter oats, winter beans, spring barley

What drill are you using?

We have a Horsch Avatar 6.16 SD with additional micro-granular hopper, which can be used for starter fertiliser and slug pellets. We also have a 2005 6m Horsch Sprinter grain and fertiliser tine drill.

We didn't opt for the additional 1,400kg weight on the Avatar because if the going is hard then we'll wait for it to soften or use the Sprinter with Dutch openers.

See also: John Mair's Ma/Ag 6m drill

Why did you change to a no-till drill?

We were putting too much effort into a plough or min-till system and needed to find a way of reducing our cultivations, so I joined a no-till group called Base.

There are so many people there to share experiences and you can take different ideas, understand how they work, and pick what is best for your farm.

We've tried a lot of drills over the years. We had a Dale tine drill, but it was too early in its development and suffered with plugging. We also had a John Deere disc drill, but it struggled for soil penetration – one year it would work well, the next it wouldn't.

I always liked the Deere and think it's the best coulter you can get. The only reason we didn't keep it was because it can't apply fertiliser with the seed. You can have a liquid system fitted, but it takes a lot of remedial work to get the tank on.

We then moved to a disc/press min-till system with our 6m Horsch Sprinter, but the tines were too big and too much like a blunt instrument for direct drilling.

We didn't sell it, but bought a 6m Claydon to get back on the direct drilling route and although I've got nothing against the Claydon drill, it moved too much soil for us.

My son Edward and I found the Horsch Avatar at the Sima show. It has an opener about as close to the John Deere as possible, but the Horsch also has a very good metering mechanism and the ability to place grain and fertiliser. Last autumn we decided to go for one and got a Leader grant to help fund it.

How does it work?

The Avatar has 36 single-disc coulters spaced at 16.7cm and each 20in disc sits at a 7deg angle to open a slot.

A small seed boot beside the disc drops the seed – and fertiliser if in use – into the slot and a small rubber catching wheel prevents seed bounce. Finally, an angled wheel closes the slot.

Depth is controlled on each individual coulter by a gauge wheel, adjusted on a winding handle held tight by a nut and bolt mechanism.

How has it performed?

We drilled all the spring barley with it this year and were really pleased with the results. We put it in with an NPKS compound fertiliser (24-8-8-8) and it paid dividends this spring with the later drilling.

## En route to World Routes

The drill sails through residue without any noticeable hair-pinning. The coulters are the main thing – they don't move a lot of soil and blackgrass germination is much lower compared with a tine drill.

Seeding depth is also extremely consistent, emergence is uniform and the metering system seems accurate and easy to calibrate.

It helps that we have a 12m Rite-Way straw rake, which I bought after a trip to Canada – everyone has one over there. It came in bits and our farm engineer Philip put it all together.

If we are in a situation where there is too much wet residue, we always have the Sprinter with the Dutch openers to fall back on.

What could be improved?

The worst part is emptying the hopper. It's OK if you have a clean floor space and a small amount of seed or fertiliser left over, as you can let it drop out, but large quantities aren't easy.

The access between the bottom of the hopper and the coulters below is poor and it's difficult to get a bag in there.

Another issue is the individual depth adjustment. A nut and bolt requires slackening on each of the 36 coulters and it's time consuming, whereas the John Deere is just a pull-and-twist mechanism.

The walkway mesh used on the hopper platform gives good access but has a very aggressive pattern and is painful to kneel on if you need to do any work on it.

I'd like to see Horsch add a liquid fertiliser system option, too. The advantage is that you could apply liquid fertiliser or fill it with water for ballast when the ground is hard.

Horsch Avatar 6.16 SD

Year 2017

Width 6m

Spacing 16.7cm

Coulters 36x Disc

Max coulter pressure 250kg

Hopper 5,000 litres (40/60 split) plus 200-litre micro-granular unit

Metering Horsch electronic

Power 210hp+

Drilling speed 6-15kph

Output 40ha per day

Price paid £95,000

Likes and gripes

Likes

Low-disturbance coulters

Consistent seed depth

Very accurate metering

Stability in transport mode

Gripes

Hopper is tough to empty

Time consuming depth adjustment

Aggressive walkway mesh on platform

Lack of liquid fertiliser kit option

JOURNAL : Farmers Weekly

Lincolnshire farmer Tom Hounsfield gives us his verdict on the adapted Sumo DD no-till drill he bought in 2015. He tells us why he switched to no-till, his likes and gripes, and what he'd change if he could.

Farm facts

Chestnut Tree Farm, Wellingore, Lincolnshire

Acreage and soil type: 304ha of sandy loam over limestone

Crops grown: Winter wheat, winter oilseed rape, spring barley and combining peas

What drill are you using?

We have a 4m mounted Sumo DD and additional front hopper. Sumo only makes a mounted version of the DD up to 3m, but we asked for a wider model and they made it.

What we'd seen from our previous Versadrill, and other trailed machines that pick up on two transport wheels, is that you get compaction in the corners and on headlands. We wanted a machine that could be lifted on our Claas Arion 650's dual wheels to try to reduce that problem.

See also: Driver's view: Swithin Waterer's Sly Boss drill

Sumo DD

Year: 2015

Width: 4m mounted

Spacing: 200mm

Coulters: 20x disc

Max coulters pressure: 150kg (200kg with weight transfer system)

Hoppers: 1,900 litres plus 1,900-litre front-mounted tank

Metering: ORGA (Sumo design)

Power requirement: 150hp +

Drilling speed: 10kph

## En route to World Routes

Output: 40ha per day

Price: Bespoke model cost about £50,000 including front hopper. A 3m mounted version starts at £40,434. DD drills of 4m+ are trailed

Why did you change to a no-till drill?

Our soils have relatively low organic matter and the structure wasn't particularly good at the time. The farm used to plough and combination-drill everything, but we realised it was just too much for our land and a waste of time and money.

We are trying to improve structure with no-till and cover crops, get organic matter into the soils and save money, too.

We've been gradually working up to no-till, first establishing oilseed rape direct with a Sumo Trio, so a moving to a Versadrill in 2010 seemed like the obvious transition.

The Versadrill is essentially a set of loosening tines with a Moore disc drill behind. For the first two years we used the tines, then without for another two. Four years ago, we changed it for the DD we have now, which has a flatter coulter, so closes the slot better and can deal with higher levels of trash.

How does it work?

The openers sit on a parallelogram and are pressurised by springs. For additional pressure, there is a hydraulic weight transfer system on the front of the drill that pushes against the bottom of the link arms to help keep it in the ground.

Each individual opener sits on its own gauge wheel. A flat serrated disc at a slight angle opens a slot for the seed, which is dropped in, and a seed tab drags just behind to prevent seed bounce. An angled steel firming wheel then follows behind and breaks through the side wall of the slot, closing it up and giving better seed-to-soil contact.

How has it performed?

The better the soil, the better the drill's performance and, although people say it's difficult to no-till peas, once the structure is there it's possible and we've had success with the DD.

Adding in fertiliser has also improved the system. The oilseed rape and spring barley rocket away with a starter fertiliser and we've seen good emergence and establishment. It also gives us the flexibility to drill spring barley a bit later, towards the end of March and into April.

I like the way it copes with our high stone content. We had several drills on demo that looked good in theory, such as the Great Plains with its a vertical disc, but most just popped out every time the disc hit a stone. The Sumo's is at a slight angle, so it pushes straight through.

The modification that clears residue out the way of the disc coulter to prevent hair-pinning in the seed slot is also good. We had problems with the Versadrill in oilseed rape where fast establishment is required to get away from problems such as flea beetle, so it needed addressing.

It's also very low disturbance, closes the slot well and rides contours, unlike tine drills.

What could be improved?

The strength of the front attachments for clearing out residue isn't good, particularly in high straw when drilling oilseed rape after spring barley. We strengthened the attachments ourselves and they worked much better in spring barley this year.

The first seed tabs also kept snapping, but Sumo has strengthened those and they haven't caused a problem since.

## En route to World Routes

We are putting DAP down the spout with the oilseed rape and spring barley and initially had the fertiliser in the back hopper and seed in the front, but the operator noticed drill misses and realised there was a delay in seed reaching the coulters. We've now switched the seed to the back and fertiliser in the front, which has stopped any gaps.

The only other improvement I would make is something we've already done ourselves – safety stands fixed either side for getting underneath when it's in the air.

Likes and gripes

Likes

Copes with high stone content

Low soil disturbance

Good seed slot closure

No hair-pinning

Gripes

Weak clearing wheels

Lack of safety stands for working underneath

Mechanical individual coulter depth adjustment is awkward

Radiator to warm air for improved fertiliser flow performs poorly

JOURNAL : Farmers Weekly

Lower global milk production is expected to drive European farmgate milk prices to a peak in November 2018, provided that fears around a global dairy demand slump are not realised.

**Seasonal** lulls in production in the northern hemisphere and extreme weather events in Europe and Australia have supported global milk prices, according to INTL FCStone director of dairy market insight, Nate Donnay.

However, dairy commodity traders said that higher prices could be masking a worldwide reduction in demand for dairy products, during the EU Dairy Outlook conference in Dublin last week.

See also: 9 stark revelations on Brexit from Irish dairy leader

Population and GDP growth – good indicators of a nation's medium-term appetite for dairy products – were expected to decline between 2018 and 2019 in seven of the nine largest dairy importing nations, including China, the US, Japan, Vietnam and Malaysia, according to International Monetary Fund (IMF) data.

The outlook for these nations' GDP growth was negative, with fears over escalating trade wars meaning the IMF was likely to downgrade forecasts further.

Just a 1% increase in population and GDP leads to an 8% change in dairy market prices.

Fears over waning demand would be put to the test at the end of the year and start of 2019 when production typically increases and higher holiday demand falls away.

The positive indicator was that the bulk of developing nations, bundled together, had seen positive growth of both indicators for the past three years with further increases expected in 2019.

<https://infogram.com/manufacturing-milk-price-1hxj488ok73q4vg?live>

## En route to World Routes

"We have a demand issue that is helping to push Oceania prices down right now," said Mr Donnay.

"My general expectation is relatively decent pricing as we move through the fourth quarter and into the first quarter [2019]."

Mr Donnay warned that if global demand did not improve in late November and December, when the holiday buying was over and US and EU milk production began its seasonal increase, EU pricing would have to reset to Oceania levels.

Manufacturing milk prices with a constituent content of 4% butterfat, 3.4% protein, in Oceania have fallen by 15% since June 2018, to average \$345/t (27p/litre).

## Positive outlook for EU farmers

"My expectation is farmgate prices will keep moving up to until October and November," said Mr Donnay.

The dairy market expert said he expected the November peak to be at "decent but not record levels".

"Farmers should be doing OK relative to milk production," he added.

Milk prices across the EU-28 member states should be good enough to drive expansion across the Continent, providing the average European dairy farmer with a margin over purchased feed of at least 20/100kg (17.4p/litre).

<https://infogram.com/milk-production-gross-margin-1h9j6qwpznr56gz?live>

Mr Donnay added that higher farmgate milk prices would not filter through to EU milk production until March or April 2019.

"My expectation is that we are going to be running below year-ago levels by 0.5-1% by September through December.

"EU milk production will be relatively constrained for the next six months or so, but then we begin a rebound in growth in early 2019 unless we have some type of weather disturbance," he added.

## International outlook

USA: Production predicted to be down 1-1.5% compared with fourth quarter of 2017. Production growth of 1-1.5% expected in the next six months, split 50:50 between domestic growth and exports.

New Zealand: Short-term driver will be the weather. Production increase of 2.5% predicted for the next six months, but if weather is good during peak production, the increase could be as much as 4-5%, while a drought would lead to a 1-2% fall. Production changes of 3% lead to price changes of 8-10%.

India: India will begin paying subsidies for countries exporting SMP to world markets. However, this will be mainly to bottom end of dairy markets and should not impact EU prices.

China: Dairy imports have flattened out in recent months following growth of 1.7% in 2017. Famously unreliable Chinese domestic milk production figures were indicating a 2-4% production growth in the nation in 2018, which could account for the lack of import activity.

## JOURNAL : Farmers Weekly

Feed accounts for around 70% of costs on pig farms but producers could trim this if they tackled wastage from inefficiencies and poor feed management.

An AHDB Pork study estimates that 5-20% of pig feed can be wasted on farm.



## En route to World Routes

Pig nutritionist Dr Phil Baynes says waste from faulty feed bins and troughs and vermin contamination are major contributors to costs on pig units but these are avoidable.

See also: Guide to biosecurity measures to keep pigs disease-free

Poor feed conversion ratios also represent a waste of feed, through inefficiency.

Dr Baynes calculates that at current prices, an increase of just 0.1 in Feed Conversion Rate (FCR) leads to a 10% rise in feed cost. "Improving FCR by reducing waste is critical in the rearing herd," he said.

Here are his top tips for reducing waste.

Fix leaky hoppers

Problem: Wastage is higher when feeders are in a poor state of repair.

Action required:

Examine feeders between batches – if there is a hole, fix it, or replace the feeder.

Examine downpipes and feed systems because holes can be hidden.

Consider replacing older or inefficient feeders with well-designed, efficient feeders that optimise feed inputs while maximising performance.

Put lids on feeders

Problem:

Without lids, feeders are a feasting ground for vermin. Not only will birds and rodents consume expensive feed but they will also contaminate it so there is a doubling of wastage.

On average, bird feed intake can be 24g/bird/day.

Action required:

All feeders should be covered

If the stockperson needs to examine the feed level, ensure the feeder has a see-through area where this can be assessed.

Don't allow feeders to over-run

Problem:

When this happens, feed can be reduced to powder and pigs won't eat it

It will also increase dust contamination and respiratory problems

Feed efficiency can be maximised when pigs have to work for their feed.

Action required:

Place less feed in the feeder by lowering the downpipe into the feeder to reduce wastage, although the feed auger may need to run more often.

Every stockperson on the unit should understand how to adjust feed availability.

A standard rule is about 50% of self-feeder trough bottom should be visible.

## En route to World Routes

Trough bottoms that are completely covered with feed are probably wasteful.

Feed the right rations

Problem:

Maintaining expensive early diets for longer than needed increases costs.

If you use the wrong feed it is bad for performance or you over-supply nutrients that pigs can't physically use and therefore waste.

Action required:

Pigs should move progressively to lower density, and therefore less expensive diets in accordance with their stage of maturity and legal requirement.

Regular feed budget audits will ensure feed intakes are appropriate for the stage of production.

Formulate diets based on input requirements. Lysine, for example, must be appropriate to the stage of production and other amino acids provided in the correct balance. If these are not given in the right ratio it will impact on muscle development, as well as other metabolic functions. These ingredients are expensive so if you are feeding too much it is wasteful because it will just be deaminated and expelled in the urine.

Prepare feed correctly

Problem:

If grains are not prepared correctly it can result in waste because they will be undigested and passed out whole.

Action required:

Feed must be correctly ground or rolled, although the final grist size will depend on the feeding system. For instance, a smaller grist is favourable in wet feed systems.

Position feeders and drinkers in the right place

Problem:

Pigs like to drink shortly after feeding – if drinkers are more than two metres from the feeder they will walk between the feeder and drinker.

Food carried in their mouths will then drop on the floor and bedding.

Action required:

Ensure pigs don't have to cross the sleeping area to get from the feeder to the drinker.

Avoid mycotoxin contamination

Problem:

Mycotoxins can cause significant health and performance problems.

Fungal infestation is influenced mainly by moisture level, temperature and availability of oxygen.

Action required:

Ensure feed is stored correctly and monitor for contamination.

## En route to World Routes

Avoid grain that is damaged, immature, drought-stricken or otherwise stressed, as it will be more susceptible to mould growth.

Avoid overcrowding in pens

Problem:

Overcrowding is likely to reduce daily feed intake, especially if there is competition for feeders, decreasing growth rates and impacting on the FCR.

There is a direct linear relationship between stocking density and growth rates, as reported in many scientific studies. Having only one or two pigs more per pen can result in more than 50g/day reduction in growth rates. This can be addressed partially by an increase in nutrient density of the feed and supply of another water access point.

The wastage therefore comes from either under- or over-providing energy. Too little and the growth rate slows down, days to slaughter increase and there is a cost to subsequent additional maintenance days.

Too much energy relative to digestible amino acids can lead to pigs not meeting the grading requirements. Money is then lost from excess expensive energy being spent on the diet, coupled with a loss of revenue from a less-than ideal carcase.

Action required:

Calculate the ideal stocking density per department to avoid a bottleneck.

Either consider revising the size of the breeding herd or look to sell some younger pigs to meet the stocking density in the rearing accommodation.

Check water flow rates

Problem:

Depending on the weight of the pig, the water flow rate should be 0.5 to 2 litres/minute to encourage higher feed intakes.

Often flow rates can be less than this because of water quality issues or obstruction from mineral and grit build-up.

The relationship is around 2.5 to 2.75 water to feed intake. By restricting water access, feed intakes subsequently suffer and this increases time to slaughter and reducing feed efficiency.

Action required:

Check that flow rates are consistent with requirements.

If they are not, consider changing the delivery system or cleaning the lines with either a dairy cleaner or appropriate organic acid blend.

Ensure good hygiene

Problem:

Dirty pens increase the antigen challenge for pigs.

As with stocking density, this can easily lead to a reduction in growth rates by 50g/day or more as the immune system uses protein and energy to mount a response, rather than using these nutrients for growth.

Action required:

Clean, disinfect and dry pens between batches.

If using straw, use the cleanest straw possible to avoid potential problems with mycotoxins. If this is not possible, add a good quality mycotoxin binder in the feed.

JOURNAL : Farmers Weekly

Farmcare, the former Co-operative Group farming business, has withdrawn from active farming, instead forming 12 partnerships with contractors and other farmers.

The business was sold to the Wellcome Trust for £249m in 2014, in the largest farming business sale for many years. In November 2017, it announced that it would cease operational farming.

Farmcare's two fruit farms – Highland Court in Kent (315ha) and Tillington in Herefordshire (328ha) – have been sold, as has the company's central office in Barnsley. This leaves it with six farming sites, all in England but spread between six counties.

See also: Farmcare to quit operational farming

A statement from the company said that Farmcare would continue to develop its land and property assets, investing further where appropriate.

Employees of the farming operations have transferred to work for the new partners.

"These new partnerships with leading contractors across the UK will increase the economic resilience of the farms to ensure their long-term prosperity," said Farmcare chief executive, Richard Quinn.

"The Farmcare team has worked hard over the past four years to modernise the business, and these new partnerships will enable each of our farms to continue to develop and perform at an even higher level. We have helped all of our support staff to find new roles."

JOURNAL : Farmers Weekly

Time to cheer up. Life is starting to get a whole lot better.

Grass is growing, brassica crops are starting to really fill out, lambs are being sold, cattle are back on the thrive and our shop, Damn Delicious, is really busy, both online and in the shop.

Wholecrop is in and the lambs are now enjoying the young grass with red clover that was underneath. At the start of September, 20% of the lambs had gone at an 18kg deadweight average.

A small amount of very lush second-cut was made at the weekend, which I hope will turn out to be 11 ME (metabolisable energy) silage for sheep.

See also: Tips and advice for planning and building a new silage clamp

In a year like this, cashflow can be a real problem. Normally, we would be selling a lot of cattle to slaughter in July and August, but because of the terrible winter, a lot of my cattle started the summer in poorer condition than usual and were not ready when they should have been.

I ended up with a lot of big-framed cattle that really needed to be fattened on grain. I recognise that is not my skillset, so today I took the biggest to market and sold them as forward stores, ideal for someone to finish for the Christmas market.

It's interesting how suppliers react at times like these. I like to pay my bills on time, but this year I needed more time.

We are told we should always keep our suppliers informed, which I did. Only one supplier let me down.

I am now in debt to all those supportive suppliers and they have certainly increased my loyalty as a customer, but as for the one, it should never expect another order from me.

Our shop has had a huge change in the past month, when our longest-serving employee decided she wanted a change in career.

Along with our recent increase in sales, processing for smallholders and farmers for their freezers has allowed us to appoint some new staff with new ideas and new processes and there is a great new buzz about the place. Long may it continue.

Michael Shannon is a Farmer Focus writer farming in Lanarkshire. Read his biography

JOURNAL : Farmers Weekly

A sheep farmer has appealed to dog owners to act more responsibly in the countryside after 29 of his sheep were killed following a terrifying attack.

Angus Baird said his sheep were “dropping like flies” following the attack in Merstone on the Isle of Wight.

An out of control dog or dogs is believed to be responsible for the incident, which happened some time between 7pm on Tuesday (4 September) and 7am on Wednesday (5 September).

See also: The law on shooting dogs – critical facts farmers should know

A neighbour raised the alarm after he spotted three sheep lying dead in a field in Merstone on Wednesday morning.

Mr Baird went to the field to check his flock of 330 sheep, mainly Romney Aberdale, and he found 21 dead sheep.

At first he thought the animals may have died from poisoning after drinking water from the reservoir.

But on closer inspection, Mr Baird discovered bite marks and signs of distress on the sheep, which suggested they had been chased for some time.

“One sheep had drowned after being chased in the reservoir, another dead one had a broken leg and bite marks on its other leg after it had been chased and there were 19 other dead sheep scattered around the field,” he said.

Frothed at the mouth

The sheep were checked and moved into the next field. A further eight sheep have since died. They were all found sat down and frothed at the mouth.

The dead stock were taken back to the farmyard in a wagon and a vet was called to carry out a post-mortem examination on two of the sheep.

“There was no sign of any poison or anything unusual in the rumen,” said Mr Baird.

“The sheep looked quite healthy, but when the vet cut in by the heart she found 4-5 litres of fluid and concluded that the sheep had died of a heart attack brought on by the stress of dog worrying.”

Mr Baird said he planned to put the sheep to the ram in about a month’s time. He had lost about 10% of his flock and would need to buy replacement ewes.

£6,000 bill

He estimated that the incident would cost him up to £6,000, including vets bills and disposal costs. However, he hopes his insurance policy will enable him to recover the costs.

## En route to World Routes

"I'm absolutely devastated," said Mr Baird. "Dog owners have got to be more aware."

"If your dog is chasing sheep around, it may look like it's having fun, but it's the implications of what might happen in the ensuing hours. This is pure dog worrying."

Barry Isaacson from Jervis Court Equine, a fallen stock disposal service operating on the island, was called to collect and dispose of the dead sheep.

## Keep dogs on leads

He said: "A lot of farmers are turning people off their land if they find them with dogs off their leads. The general feeling among owners is that their loose dogs are playing with the sheep, but they don't recognise it being a problem."

"This is happening all the time in the countryside. People from towns are buying homes in the countryside, but they are not brought up here and don't understand the rules and the need to keep dogs on leads at all times around livestock."

"On this occasion, the sheep are not ripped to pieces, but many were exhausted after being chased by a dog or dogs that got tired and went home."

Mr Baird has reported the incident to Hampshire Constabulary. He has appealed to anyone with information to contact police on 101.

## JOURNAL : Farmers Weekly

A Hampshire arable farmer found an empty cash machine stolen in a ram raid on a petrol station while combining his crop of oilseed rape.

The farmer, whose identity we have chosen not to reveal, told Farmers Weekly that he discovered the damaged ATM hidden under a coat in a hedge on a farm near Basingstoke.

He alerted officers from Hampshire Constabulary, who attended the farm within two hours.

## See also: Farm security advice to combat rural crime

Police confirmed to the farmer that the cash machine had been ripped off the wall a few days earlier by thieves, who ram-raided a Mace store at a Texaco petrol station in Dunley's Hill, Odiham, on 14 July.

"We were out combining some oilseed rape in our Claas Lexion 660 and when we moved the header around, we noticed a huge piece of steel in the hedge. It was covered by a coat," said the farmer.

"The thieves stole a big track digger from a construction site, drove it 200m up the hill through a field on to a road and straight through a petrol station forecourt. The raid happened in the early hours of the morning but they were pretty ballsy."

"The cash machine contained £56,000 and they used an angle grinder to break through its steel casing. There was nothing left in it when I found it except an old pair of gloves."

## Angle grinder disc recovered

The farmer said he found a discarded disc from an angle grinder believed to have been used in the theft on another part of the farm a couple of days before he discovered the cash machine. It is believed the thieves took the cash machine to an isolated part of the farm to cut open the safe.

The farmer said officers told him the ram raid in Odiham is being linked to a number of similar cash machine thefts across the county.

## En route to World Routes

"The thieves appear to be targeting a specific type of cash machine. It's clear they know how to open it," added the farmer.

Police have urged farmers and landowners to take steps to prevent the theft of farm machinery that could be used in cash machine ram raids.

PC Andy Reid, area beat commander for Basingstoke Rural South, said: "We are experiencing big problems with thieves stealing Manitou telehandlers and tractors with front loaders and using them against cash machines.

"We would urge every farmer and landowner to take steps to prevent the theft of farm machinery, which is then used by gangs to commit crimes."

## Spate of ATM thefts

Since February, there have been at least 14 cash machine ram raids carried out across north-east Hampshire and Surrey, including petrol stations, banks and convenience stores in Farnham, Banstead, Farnborough, Guildford, Haslemere and Woking.

Anyone with information on the theft in Odiham or other cash machine thefts is urged to contact police on 101.

## Theft of telehandlers "in vogue", warns rural insurer

Rural crooks are stealing telehandlers from farms either to sell on or use to commit further crimes with increasing regularity, according to rural insurer NFU Mutual.

Clive Harris, NFU Mutual's agricultural vehicle specialist, said the theft of Manitou and JCB telehandlers is "very much in vogue with the criminal fraternity" at the moment.

"They are being stolen for resale, export and cloning," added Mr Harris.

He urged farmers to consider "layers of security" to prevent the theft of telehandlers, tractors and other farm machinery.

"JCBs use the Cesar marking scheme, unique keys and an asset management system that doubles up as a tracking system," said Mr Harris.

"Manitous have immobilisation devices with a four-digit PIN. You can also buy retrofit tracking systems and immobilisation devices after market."

Mr Harris also offered five more tips to prevent thefts of telehandlers from farms:

Keep telehandlers out of sight; don't leave them on show in fields or in the farmyard

Consider lighting or alarm systems in the farmyard

Secure property with properly fitted CCTV

Perimeter fencing and warning signs

Locked gates and barriers

## JOURNAL : Farmers Weekly

The theme of the past weeks has definitely been "less is more". A lot less hours worked than is usual for August because so much of harvest was completed in July, and much less in the way of cultivations due to the dry conditions.

## En route to World Routes

We had intended to pull the mole plough through several fields, but Hew became exasperated with the rate of wear of the metal, and when the bullet for the mole wore out to breaking point after just 4ha, we decided that 2018 was not the year for it.

It has also not been a year for early cultivations. With blackgrass dormancy so low, we listened to the agronomist, who said the grassweed seed is best left undisturbed.

See also: [How, why and when to mole drain](#)

Sure enough, after useful rains stubbles are now greening up nicely. We won't be too eager to spray off these stubbles with glyphosate just yet either.

Better to spray just once before drilling than encourage glyphosate resistance with multiple applications.

## New sheep

We are now the proud owners of 50 Exlana ewe lambs purchased from local breeder Ian Metson.

These will be grazed on short-term leys rotated round the arable area in a bid to improve soils and reduce grassweeds.

This is an exciting venture back into sheep for us after a 15-year gap. The wool-shedding Exlanas are a world apart from the indoor-lambing Suffolk-cross ewes we used to keep.

I am so impressed with the work a group of West Country farmers have done to develop a breed fit for modern farming.

These sheep not only shed their wool naturally, avoiding all the work, welfare issues and hassle that goes with wool, but are extremely good on their feet, have been developed for high weight gains from grass and have been selected for worm resistance too.

Brenda, our bookkeeper, and I breathed a sigh of relief to get our VAT inspection out of the way this week. It is a bit like being followed down the road by a police car - even if you feel you haven't done anything badly wrong, it is still great not to get pulled up.

## JOURNAL : Farmers Weekly

Although we didn't manage a bank holiday finish to harvest, we did manage an end-of-August one, which was a month earlier than last year.

We had little to dry this year. Quality and quantity were markedly improved from last year, which will make the marketing of grain a decidedly more pleasurable activity than it was last year.

The lift in grain prices for this harvest compared with those received for 2016 and 2017 seems to have created greater optimism in the industry.

See also: [Read more from our Farmer Focus writers](#)

One sign of this has been that machinery dealers have reported being very busy with demonstrations and getting quotes out on farm.

This renewed optimism isn't only confined to the arable sector, as trips to livestock markets recently has seen prices for store sheep and cattle at similar levels to last year.

Life goes on



## En route to World Routes

A interview for a TV news programme about the consequences of a no-deal Brexit had the interviewer asking me whether I would have any grain or livestock left unsold on the farm at the end of March 2019.

Meanwhile, here on the farm we continue to plan for 2019. We have bought our replacement sheep, and the rams are out with ewes for a January lambing.

We have planted more than 240ha of stubble turnips and have started to buy store lambs. On the arable front, despite temptations we haven't gone back into seed oilseed rape and seed turnip production after our withdrawal two years ago, and the recent warm and dry weather has brought the flea beetles out again in force.

An invitation requesting my presence on the rugby field this weekend will have to be resisted.

I have recently discovered a like-minded group of frustrated ex-rugby players who have invited me to play basketball on a Friday evening, so this could satisfy my penchant for team sport.

JOURNAL : Farmers Weekly

Harvest is behind us now. We, like most, had an early start and made swift progress through the first three-quarters. The weather then turned a little catchier, making the tail end more frustrating.

Overall, results have been reasonable, with quality generally good. Yields appear to be down about 15%, which is not as bad as I originally thought given that the majority of our land is towards the lighter end of the spectrum.

The exception is the spring beans – the less said about that the better.

See also: Top tips on tackling pests when establishing OSR

The kind conditions means all our oilseed rape has been drilled into decent seed-beds with a bit of moisture.

We can now spend the next month walking it every couple of days, making sure it is still there and the various assorted pests are controlled as best we can.

I have also taken the opportunity to drill an increased area of stubble turnips to try to fill our forage shortfall.

Potato problems

The start of a new season also means a new placement student. We recently said goodbye to Katie, who put in a sterling performance over the past year, and have welcomed Kim in her place.

Potato harvest is now our key concern. We are seeing many problems associated with the hot weather and lack of rainfall.

Yields are proving highly variable depending on location and availability of water through irrigation and soil type.

The unirrigated early crops have proved to be particularly disappointing, but the maincrop varieties look to have more potential.

Secondary growth – something we have not seen a lot of for a long time – is also proving to be a concern that will need careful storage planning and management.

To a man, all my customers appear to accept that lower yields are going to mean higher prices. The problem is that they don't want to be the one in the chain standing it.

Price inflation when it is beyond our control needs to be shared between the processor, retailer and consumer.

JOURNAL : Farmers Weekly

## En route to World Routes

August has brought about such a change. We have gone from being short of forage to having a surplus after taking a fourth cut in the final days of August.

The fourth cut ended up being nearly 40ha more than we would normally cut due to the extreme growth, with high soil temperatures and some form of rain most days during the previous two weeks.

With the regular rain we have taken the decision to house the milking herd because the animals were starting to make a big mess, especially around gateways.

And now we have the fourth cut, we are comfortable with our forage stocks for winter. Having the milkers all housed should look after condition on the cows a bit more and we will look to drive fat and protein without the variability of wet grass causing a reduction in the solids.

See also: Cross-bred cows v Holstein: How they compare

Following on from last month's issues with a different milk powder, the original powder has continued to perform well and the calves are weaning nicely at 70 days, having averaged a daily liveweight gain of 0.97kg, with us aiming for a minimum of 0.85kg/day.

We are pushing well past that to have the heifers at bulling weight from 13 months, as we continue to pull our calving age down to average 24 months.

We have gathered the fell and weaned the lambs a couple of weeks later than we would have liked, but we wanted to ensure plenty of grass for them to come in to.

The ewes have lost a little more condition than we hoped, achieving a body condition score of about 2, but hopefully now with a copper bolus, mineral drench and the lambs weaned off, the ewes will recover nicely for tugging in November.

The lambs look well and have been put onto some old permanent pasture with plenty of grass to get them used to the higher-quality feed compared with the fell.

If we don't do this, it causes the lambs to stall for too long when they go straight onto silage aftermath or reseed without rougher pasture to help their rumens adapt.

Patrick Morris-Eyton is a new Farmer Focus writer. Read his biography.

## JOURNAL : Farmers Weekly

It's the time of year again when we have to make sure we have enough teasers before tugging, so we are vasectomising a few more rams. I am considering going up the race myself and having it done.

Our youngster George (now two months old) seems to think that sleep isn't needed as much as we do. Funny enough, the vets thought I was joking when I booked in five rams and a farmer no longer fit for breeding.

Pip has been pushing for us to sort out all our life/critical illness insurance and our wills in case of the worst happening.

Read more from all our livestock Farmer Focus writers

I think it is something all too often ignored, which can leave a mess behind for others to sort out or fight over. It is peace of mind to know that everything is in black and white for our children.

On a happy note, the grass has made a nice comeback after the dry summer and it is looking promising that we will go into winter with more than enough feed.

We have also been able to put in a few green crops to strip graze, both for the deer and sheep.

## En route to World Routes

We have started to sort things out for an AI programme for the deer, which is quite exciting as we have the opportunity to take advantage of some of the best eastern European red deer genetics.

The only frustrating thing is it is such a long-term investment – both in time and money – but we have to keep moving or we will get passed by.

Unfortunately, I'm finishing on a negative note. As some of you may have seen, video footage of shearers mistreating animals was recently circulated online. I do not excuse any form of hitting sheep.

Yes, the story was very one-sided and hard to watch, but as farmers we seem to be seeing a massive rise in people looking to portray us as very aggressive and uncaring towards animals, trying to destroy what most of us really are.

So, if you see anyone doing anything unacceptable, tell them to cut it out, as it's giving shearers and farmers a bad name and image in the public eye.

Matt and Pip Smith are Farmer Focus writers from Cornwall. Read their biography.

## JOURNAL : Farmers Weekly

Another week and another great batch of photos have been sent to Farmers Weekly by our fantastic readers, keen to share a snapshot of their lives.

From the scenic and the serious to the fun and the funny, your pictures are a great insight into agriculture and rural living across the UK.

This time we're sharing some 2018 harvest photos where farming couples, kids and families across the generations are all getting stuck in.

See also: Video: How to train a sheepdog and pick the best breed

Benjy Addy has found the perfect harvest buddy with lovely Lilly the cocker spaniel in West Yorkshire.

Not your average date night for Toby and Louisa – they've been carting straw in South Yorkshire. The life of a farming couple summed up in this photo.

Time for a picnic in Norfolk with the Craig family after a busy day in the tractor. Rachel Craig sent in this shot.

## Share your photos

We can't get enough of your farming photos. The best way to share your snaps with us is to upload them to our Farmlife Framed gallery – it's quick and easy and can be done straight from your smartphone or tablet.

Simply click the upload button at the top of the page, select the image you would like to share with us and add your name, email address and a short description. You can also check out all of the other fantastic photos that have been uploaded.

Huge congratulations to farmers' daughters Katie Collins and Megan Jones on tying the knot in Worcestershire. Katrina Bartlett took this one of the happy couple.

Happy 75th birthday to farmer Philip Laming in Lincolnshire. "His dedication and passion for farming and 'hard graft' as he calls it, is something we as a family are extremely proud of," says his daughter Clara Pickles.

This photo is of Philip and his four-year-old granddaughter Georgina at this year's Lincolnshire Show.

Three generations of farming in this harvest snap shared by Charlene Cannell. Grandad in the tractor, dad in the combine and three-year-old Bobby Bramble looking at his future.

Newlyweds Jess and Harry Grant from East Yorkshire couldn't go on their honeymoon without a copy of Farmers Weekly.

When mum says it's bathtime but you're really not keen. A brilliant snap captured by Eleanor Mirfin.

Clive and great grandson Joshua enjoying an afternoon read of Farmers Weekly in Cornwall. Clare Dunstow shared this one with us.

#### JOURNAL : Farmers Weekly

Spot feed wheat prices in the north have fallen £5-7/t in the last 24 hours following the news of the closure of bioethanol plant Vivergo.

This brings prices back to around £170/t, down from their peak of around £190/t in early August.

The November feed wheat futures price also closed down for the fourth day in a row on Thursday (6 September) to stand at £175.25/t, a price not seen since 20 July.

See also: Tips on killing slugs with ferric phosphate pellets

Vivergo managing director Mark Chesworth announced yesterday the plant would be ceasing production at the end of September, blaming the government's lack of support for biofuel over the past decade.

High UK grain prices since the plant reopened in April will have also weighed heavily on the company's fortunes although industry insiders note that they were already bringing in a portion of their wheat from overseas.

Vivergo's parent company is Associated British Foods, which also owns British Sugar and has a 50% stake in crop production and grain marketing business Frontier.

It also owns high street clothing giant Primark.

#### Disappointment across industry

Farmers from the arable and livestock sectors have been reacting with disappointment to the news.

East Yorkshire arable farmer Guy Shelby said the move would be a blow to the 900 arable farmers in the area who had benefited from the premium for their product, as well as other businesses.

"There are a lot of hauliers in the area that will feel it. There will be wagons that are looking for work," he said.

The plant produced 500,000 tonnes a year of animal feed, including distillers dried grains and other protein-rich co-products.

Vale of York dairy farmer Paul Tompkins said it was likely that prices would rise for purchases of alternative feedstuffs, such as Trafford syrup, once the plant shut down.

"We can source from elsewhere in the UK or overseas but I really enjoyed being part of a circular economy, which was also producing a 'green' product," he said.

#### Government procrastination

NFU combinable crops board chairman Tom Bradshaw said: "Our sympathy is with Vivergo employees who face an uncertain future as a result of the planned closure of its plant.

"Unfortunately, the biofuel industry has suffered for a number of years following government procrastination on renewable fuel policy. The private sector has invested hundreds of millions of pounds on the premise of a supportive policy, only to be let down by government back-tracking.

"E10 petrol needs to be embraced, particularly as it is a clear match for the green Brexit the government is trying to deliver. We continue to call on the government to fast-track the introduction of E10 to the UK fuel mix."

There is speculation that the plant is likely to be mothballed rather than dismantled so that it could be reopened in the event of crop prices falling significantly.

The price falls could benefit export-focused grain traders who have until now found it difficult to be competitive overseas as the UK has pivoted to being a net importer of grain.

JOURNAL : Farmers Weekly

Something didn't seem quite right as I folded up the sprayer booms on an early September day.

It had been a successful tank – no blocked nozzles, no walkers, fantastic hits from 1979 on Wave105, the perfect amount of water in the tank, and just one out-of-control springer from Kilmeston running loose in the last field. (Trust me: just one is a result.)

What was troubling was that I was out there at all. I had had to abandon combining for the morning (mind you, the spring barley was still a bit chewy) and rush out to the oilseed rape with insecticide in an attempt to save a crop that had – until then – enjoyed the perfect start. Perfect, until the flea beetles arrived.

See also: Read more of Charlie Flindt's columns

But even that isn't unusual. We knew it would happen at some time after the neonic ban – it was just a question of when.

What was bugging me (if you'll excuse the pun) was the fact that it was another symptom of one of the most insect-laden summers I've ever known.

Up to scratch

Never mind the flea beetles and the bruchid beetles, we've had a roof full of wasp nests, hornets hurling themselves against the outside floodlights, horseflies giving the Hinton Ampner woods a bit of break from National Trust hordes, flying ants clogging up the pool filters and clouds of thunderbugs turning any outdoor job into a scratchathon.

The shepherds have had a terrible summer with blowflies, the dogs and cats have struggled with harvest and ear mites, and Cain the cat has been generously sharing his fleas as a "thank you" for sharing my bed.

Then there was the National Trust butterfly-counting lady, almost speechless at the fluttering clouds surrounding her as she stood on a scruffy piece of Drier Field's boundary, struggling to tick all the boxes on her clipboard.

A neighbour (and country magazine editor) reeled off the names of butterflies he'd spotted on his long morning vape – "small copper, marbled white, speckled wood".

But here's the thing: 12 short months ago, the media was being carpet-bombed with doom-laden horror stories of the end of the bugs.

"Alarm over decline in insect population" said the BBC in October last year. "Insects disappearing at an alarming rate" claimed the i newspaper in the same month, and The Guardian – with its customary restraint – cried: "A giant insect ecosystem is collapsing due to humans."

Glass half clean

And every single story backed up its claim with something called the "windscreen phenomenon": once upon a time (the writer would point out), any car journey would involve a bug-splattered screen. Not any more. And within a few sentences, farmers are getting the blame.

The "windscreen phenomenon" was reinforced by a tsunami of astonishingly similar letters from readers, all from drivers claiming to have experienced the same thing.

They wrote to national papers, local papers, magazines; if memory serves me right, I think we had one in Farmers Weekly.

Well, the insects are out there. I've got the stings, the bites, and the wrecked crops to prove it. I've been out and had a look (the same reliable scientific technique that is used to disprove other eco-claims such as "there are no hares", "it'll never snow again" and "all the topsoil is vanishing").

And as for the widely quoted "windscreen phenomenon" – well, we'll ignore the fact that driving above 40mph is all but impossible these days, and consider the side profile of a Ford Cortina and then that of a Honda Civic.

Consider the airflow. If your screen is free from bugs, it's not the farmers' fault. It's aerodynamics.

JOURNAL : Farmers Weekly

Our poultry farmer finalists this year occupy quite different parts of the sector. We have an egg producer-packer in Phil Crawley, who manages Sunrise Eggs with brother Ady.

Also in egg production but of a very different kind is Derek McKeown, who tends to grandparent broiler breeders, a highly technical operation where biosecurity and attention to detail are paramount.

Finally, Glen Powell is making waves within the integrator Moy Park, having turned around a underperforming unit and consequently producing some of the best results in the country.

See also: Meet the 2018 Farmers Weekly Awards finalists

The 2018 Poultry Farmer of the year finalists

Phillip Crawley, Sunrise Eggs, Sileby, Leicestershire

Derek and Jennifer McKeown, Todds Leap Poultry, Ballygawley, County Tyrone

Glen Powell, Ladywath Poultry, Spilsby, Lincolnshire

The judges

Robert Chapman, last year's winner

Jake Davies, editor of Poultry World

Shraddha Kaul, of the British Poultry Council

Phillip Crawley

Sunrise Eggs, Sileby, Leicestershire

Sunrise Eggs is an egg producer-packer built up over two generations and today marketing the eggs of close to a million birds.

Established in the 1970s, it is a major player in the egg market, supplying retailers, restaurants and smaller shops across its native Leicestershire and beyond. The business farms 575,000 hens itself, and has about 300,000 additional hens producing eggs on contract.

Behind the business

Farm facts

## En route to World Routes

Established in the early 1970s as a pullet-rearing operation, today more focused on expanding free-range egg production

More than half-a-million hens owned, with a further 300,000 producing eggs on contract

Wide range of environmental stewardship, with more than 60,000 trees planted across 40ha

Its joint MD, Phillip Crawley, is clearly proud of the operation his father first established after leaving a career as a nuclear physicist building reactors for nuclear submarines in the early 1970s.

Initially focused on pullet rearing, the outfit moved into caged hen production before switching focus to free-range as the relatively young industry grew.

These more recent years, with Phillip and his brother Ady at the helm, have been marked by innovation.

The farm was the first in the UK to trial LED lighting for its poultry sheds, back in 2013.

In the packing centre, they have invested heavily in automation, with robotic arms and sorting machines grading and placing eggs in their retail packaging.

Free-range egg production began in 1997 and there has been steady expansion since. “That is what the consumer wanted and shows the growth in free range”, says Phillip.

Production on a multi-age, multi-site set-up can be a challenge, but rather than the highest number of eggs, the focus is on quality. “Our interest is in first-quality class A eggs. As a producer-packer, we don’t make any money from second-grade eggs – we supply retail.”

Out on the farms, there has been investment in solar energy, but more noticeable is the extensive trees growing out on the range, with birds happily making full use of the shady space to exhibit natural behaviour.

“Tree planting didn’t feel right to start with,” says Phillip. “It was a funny pill to swallow, but it was the right pill. The birds like the trees.” To date, more than 60,000 trees have been planted across 40ha.

Overall, the business has steadily expanded alongside the growth in free-range and shows no sign of slowing.

“We actively encourage visits by Young Farmers, scouts and Brooksby Melton College,” says Phillip. He has also hosted children on the autistic spectrum and even people with varying levels of sight loss from the Royal National Institute of Blind People.

Within the poultry industry itself, Phillip acts as vice-chairman of the NFU’s poultry board, which helps drive the union’s lobbying effort for the sector.

He also represents the NFU at the Laying Hen Welfare Group, which works with Defra to develop policy sustainably.

Sunrise Eggs was also involved in beak trimming trials, a major issue for the poultry sector. It was one of the only commercial-scale farms involved in the project, and required a big personal risk that paid off for the wider industry.

<https://infogram.com/in-numbers-sunrise-eggs-1h7v4pk3zkyj6k0?live>

## Performance

On the prospects for his sector, Phillip says: “Poultry production has been the good news story in farming. It has grown and grown – it’s wonderful because it gives an added income to the business, and gives the next generation something to do on a family farm.”

## En route to World Routes

As for the next generation of the business, Phillip says: "I would dearly love all to be involved, but it should be their decision, not mine."

He concludes by saying Sunrise Eggs' focus is on "quietly working all hours to build a family business that we're very proud of, and we would like to celebrate that."

The judges liked

Well-established, profitable business with a wide customer base

Impressive track record of showing off poultry farming to schoolchildren and other groups

Leadership in the broader egg industry, volunteering for important trials on beak treatment

The judges say:

"Sunrise Eggs is a big player in the egg industry, but the business retains a family touch, with Philip and his brother Ady heading up the farm their father founded in the early 1970s."

Derek and Jennifer McKeown

Todds Leap Poultry, Ballygawley, County Tyrone

There is a reasonable chance that you have eaten a descendent of the genetic stock kept by Dereck McKeown in rural Northern Ireland.

While the farm only tends to 32,000 birds on site, the progeny from the eggs laid there produce parent stock that is shipped across the UK, Europe and occasionally beyond. That parent stock lays the eggs that then go on to become the broiler birds that end up on dining tables across the world.

Behind the business

Farm facts

Secluded site at least six miles as the crow flies from another poultry farm

32,000 great-grandparent breeder birds from genetics firm Aviagen

Family affair, with Derek's wife and four children involved in the business

To give an idea of scale, those 32,000 birds will ultimately result in 168,000t of poultrymeat at the end of the chain.

"We're very conscious that what happens behind those doors has a huge effect on the supply chain," says Derek. "We're always focused on the end result, the broiler chicken."

The sheer numbers give an idea of the value of the stock in his care, and the procedures and rules surrounding his farm are strict.

It begins at the farm gate, which is locked at all times. Visitors are kept to an absolute minimum, and biosecurity is at the forefront of everything that is done on the farm.

Approaching in the car, wheels are disinfected before admission is granted to the spotless site.

From there, boot dips are obligatory, and visitors must be screened for disease before entering sheds. Regular deliveries of feed and egg collection is undertaken by the same few people, who are well versed in the rules of the farm, and for Derek and his family, the procedures surrounding farm hygiene are rigorous.



## En route to World Routes

The day starts with showering into the site, and changing into fresh clothing every day. As Derek says, it's taking care of the basics that yields the best results, and that begins with getting the birds fed.

At eight in the morning each day, feed tracks are lowered, giving the stock three hours in which to access their ration. "It's good practice to be present – feeding is the one time of the day you can watch birds and spot the ones that are not eating or showing other signs that something's not right," explains Derek.

Collecting and sorting eggs is another big part of the operation, as is monitoring their quality – both to learn more about what is happening in each house, and to meet the exacting standards the operation requires.

Any cracks, double yolks or other defects can indicate an early health problem, so need investigating, and only the most flawless eggs can go on to be hatched as parent stock.

For antibiotics use there is the same pressure on this stock at the top of the tree as there is for farmers producing food. It's part of the drive to produce more robust, healthy birds further down the chain, with birds more vigorously culled out rather than treated with medicines.

Blood sampling is taken every two weeks to both reassure customers that the health status of birds has been maintained throughout their laying life, and to detect any issues early on.

<https://infogram.com/in-numbers-todds-leap-poultry-1hxj4883kwrq4vg?live>

### Performance

All this precision, passion and achievement is all the more surprising considering Derek only started out in poultry farming eight years ago. After a career in haulage, he decided poultry would provide a more secure income, and less stress.

While both conventional egg production and broiler rearing were options, he was attracted to the demanding – but ultimately rewarding – husbandry of grandparent stock. "It's the Premier League of poultry production," explains Derek.

### The judges liked

Attention to detail runs through every element of this farming enterprise

Embraced technical poultry farming with top results

Derek has innovated with the spec of his farm, being the first to install a lab on site to help testing

### The judges say:

"Derek and Jennifer are proof that entering the poultry sector can pay dividends. They are clearly suited to the dedication and attention to detail that producing top-quality genetic stock requires."

Glen Powell

Ladywath Poultry, Spilsby, Lincolnshire

For Moy Park, one of the UK's leading poultry production businesses, employing Glen Powell when there were no vacancies proved a shrewd move.

He has since grown from assisting with chick deliveries to managing one of the firm's most interesting new sites – a double-decker broiler farm with a 189,000-bird capacity.

### Farm facts

## En route to World Routes

Unusual construction, with six separate sheds stacked over two stories

Two full-time staff, with Glen taking overall responsibility for the site

Part of Moy Park, the UK's second-largest poultrymeat producer

Behind the business

He has come a long way to find himself at that point. Glen has no background in poultry farming, having grown up in urban Essex, and began as many do helping out on a free-range egg business after school.

An early passion translated to school holidays and weekends helping out on a range of farms that were predominantly smaller, traditional flat-deck systems.

He recalls it was dirty work, with climbing under nest boxes to collect floor eggs being a particularly messy job.

The move to broiler farming, with many thousands more birds, was a big change – less dirt and more precision, as getting the atmosphere right in sheds is by far the most important way to improve performance.

After about nine months as part of the team placing chicks, Glen was himself placed on Redbarn Farm as assistant manager, where he learned the broad base of skills that broiler farming requires.

After a spell at a farm that grew birds on contract for Moy Park, he returned to the company in August 2016 to manage a newly rebuilt site – a double-decker poultry shed with three houses on lower levels and three above.

While it is not the only farm of its type in the UK, it is a rarity, and wasn't performing well.

Glen quickly turned the farm around. In his first year on the site he posted an average feed conversion ratio of 1:1.51 and a European Production Efficiency Factor (a measure of poultry farm performance) just below 400.

For those unfamiliar with broiler production, they are very impressive figures indeed – and few farms in the UK would match these numbers.

This was achieved on a tight eight-crop-a-year schedule – with just five days' turnaround between fully grown broilers leaving the sheds and new chicks arriving, there is little room for error.

<https://infogram.com/in-numbers-ladywath-poultry-1hxj4883kqng4vg?live>

## Performance

It is attention to detail that brings these results, and relentless focus on the task at hand. The judges visited at turnaround, which could be considered as downtime, but the farm was in a flurry of activity, with bedding deliveries, cleaning and general preparation.

Glen explains the meticulous tricks to get chicks comfortable; laying out feed to get them eating as soon as possible, and ensuring cool, clean water is on offer from day one. From there, it is all about managing ventilation and lighting to ensure good growth rates and high welfare.

That management is clearly something Glen has a talent for. The site had received complaints about smells before his tenure, but his careful management of airflow brought these to an end. It is also a key to the high performance in the sheds.

Where next? Bigger and more complex sites beckon. "I think a fresh pair of eyes on any unit can bring some improvements," he says.

And beyond? It's hard to see Glen moving into the corporate side of an integrator, with such a clear passion for practical farming.

The judges liked

Top performance in a complex poultry site

Clear attention to detail and desire to succeed in everything he does

Moved quickly through the ranks of Moy Park to managing a large, complex site with two staff members

The judges say

“Glen has come a long way in a relatively short period, from an after-school job collecting eggs to managing a complex site for Moy Park and producing astounding results to boot.”

JOURNAL : Farmers Weekly

Government action is needed to help growers obtain water for crops still to be harvested, say eastern region farmers.

Defra secretary Michael Gove faced calls to ensure water for food receives a higher priority when he met farmers at the NFU regional office in Newmarket last Friday (7 September).

During the meeting, Mr Gove heard how the agricultural drought had affected crops in East Anglia, with some farmers running out of water to irrigate fruit and vegetables.

See also: Water Bank launched to help drought-hit farmers

Farmers thanked the Environment Agency for its response to requests for flexibility on abstraction licences, which had helped some growers secure additional water for irrigation.

But Mr Gove was told there was a short-term need for greater flexibility to help growers with crops still to harvest to obtain the water they required.

Extreme weather

Lessons needed to be learned so farmers were better prepared for future weather extremes, said NFU water resources specialist Paul Hammett, chairman of the Water for Food Group.

“Our farmers deliver remarkably high volumes of top-quality fruit and vegetables to the public, with only 2% of the total amount of water abstracted in England.

“But this year’s record-breaking heatwave has highlighted how vulnerable farmers are to dry weather and disruption to water supplies.

“While households are protected by unrestricted water use, farmers have been in danger of running out of water before crops are ready to harvest.”

Flexibility needed

Additional flexibility around abstraction licences will be required if warm and dry weather continued into the autumn, said Mr Hammett.

There is also a need for longer-term planning to improve the response to future droughts.

“We would like Mr Gove to consider how water for food production can be given a higher priority, so its importance is recognised alongside water for domestic consumption.”

At a drought summit last month, Mr Gove pledged to do whatever it takes to help farmers secure adequate access to water.

## En route to World Routes

Further news is expected from Defra in the coming days following talks with Brussels to relax EU rules so farmers can increase the availability of fodder resources for livestock.

JOURNAL : Farmers Weekly

Michael Gove has back-pedalled on a plan to ban live exports from the UK, indicating his position was now in favour of "restrictions" to the trade.

WTO tariffs on live exports are between 5-15%, whereas tariffs on lamb meat are 48%, raising questions whether the U-turn is a contingency against a no-deal Brexit.

The environment secretary had previously supported a ban, launching a consultation on ending the shipping of live animals from the UK at the beginning of this year.

See also: Direct payments to be phased out by 2027

However, Mr Gove repeatedly told BBC Radio 4's Today programme that Defra was looking at restricting the trade.

"I am minded to take every step that we can in order to ensure we restrict animal exports and safeguard animal welfare," said the minister.

He added that all options, including a ban, remained on the table.

In 2016, the UK exported about 380,000 sheep, 10,000 cattle and 8,000 pigs to the EU for slaughter. However, this was as low as just 20,000 sheep and no cows in 2017, according to the NFU.

A spokesperson for the Conservatives added that the party had consistently said it would control the export of live farm animals for slaughter once the UK left the EU.

They added, "Earlier this year we called for evidence on restricting and potentially banning live exports. As the Environment Secretary said, all options are on the table and a ban remains a possibility."

P&O ferry ban

Mr Gove's flip-flop follows the announcement that P&O Ferries would stop the live export of very young calves from Scotland.

The company's decision came after the broadcast of a widely criticised documentary, Disclosure: The Dark Side of Dairy by BBC Scotland, which examined dairy bull calves' six-day journey to Spain.

"We can confirm that P&O Ferries will cease co-operating with the Scottish government to transport across the Irish Sea young calves destined for continental Europe with immediate effect," read a statement from the ferry company.

"We place the highest priority on animal welfare across all of our routes and were shocked by the scenes in last night's documentary."

BBC criticism

NFU Scotland launched a scathing response to the documentary, describing it as inaccurate and sensationalised.

"Although the scenes are distressing, there is actually no evidence to indicate that the Scottish calves travelling to Northern Ireland, Ireland and continental Europe were subjected to this kind of treatment," said NFUS president Andrew McCornick.

"The distressing scenes were those of cattle being shipped onto boats, which we have discovered were obtained in Romania and were Hungarian cows."

## En route to World Routes

Mr McCornick added a segment of the documentary recorded in an Egyptian slaughterhouse was wholly unacceptable, but again there was no evidence to indicate that the cows featured were from Scotland – adding that even the clips of the dairy calves in the market were not Scottish calves.

“NFU Scotland has the utmost faith in the Scottish government and its chief veterinary officer to ensure that Scottish dairy bull calves being exported are done so to the highest of welfare standards and regulations.

“It is disappointing to learn that P&O Ferries have reviewed their policies following this sensationalised and inaccurate documentary and we will look to work closely with them to see where members of ours who this will effect can go from here.”

The president added that his union would be submitting an official complaint to the BBC in regards to the standards of the reporting involved in the documentary and journalism showcased in the programme which, disappointingly, had already had an immediate effect on the agricultural industry.

## JOURNAL : Farmers Weekly

A Herefordshire grower has travelled to Brussels to tell MEPs about the vital need for farmers to have continued access to pesticides.

John Chinn, co-owner of Cobrey Farms, one of Britain’s biggest asparagus producers, in Coughton, Ross on Wye, addressed the European Parliament’s Special Committee on Pesticides at the invitation of West Midlands Conservative MEP Anthea McIntyre.

Mr Chinn, who also grows berries, beans and other crops, warned MEPs that the world population of 7.6 billion would reach 10 billion by 2050, and the great challenge of the 21st century was to produce more food from the same area while protecting biodiversity.

See also: Three growers look for alternatives to world’s top pesticide

He said the UN Food and Agriculture Organisation and the European Crop Protection Association estimated that without crop protection tools farmers could lose 80% of their harvests to damaging insects, weeds and plant diseases.

In the UK, this has been underlined this week by the difficulties oilseed rape growers have faced trying to establish the crop without access to neonicotinoids. This has left crops vulnerable to severe attack from cabbage stem flea beetle.

Mr Chinn spoke about his work for the Centre for Crop Health and Protection, one of four agri-tech innovation centres set up by the UK government, which he chairs.

He outlined how developments such as targeted chemistry, use of biological control agents, targeted application technologies and progress in plant breeding and genetics could combine to ensure the production of safe, healthy, nutritious, affordable food with ever better care for the environment.

## Slow approval process

But he described the EU approval process for plant protection products as one of the most stringent in the world and said it took over 11 years, an average of 200 scientific studies and more than 250m (£225m) to bring a product to the EU market.

“Rigorous testing and application protocols are very effective in protecting the public and the environment. However little attention has been given to its other aims of effectively supporting productive and competitive agriculture and horticulture,” Mr Chinn told MPs.

"The fact that the regulation has just started its eighth year and it has only brought to the market the equivalent of about one new active substance per year, including low-risk substances, demonstrates the approach is failing to deliver for growers."

#### Home truths

Speaking after the hearing, Miss McIntyre, Conservative agriculture spokesperson in the EU parliament, said: "This committee was set up with a specific agenda to undermine trust in plant protection products – so I was determined that it would hear from a farmer who is also an expert in this area."

"He [Mr Chinn] told the MEPs a few home truths – not only about the industry's real needs but also about very practical ways of limiting the use of products while improving the environment."

But organic farming lobby the Soil Association (SA) said a less stringent approvals process could lead to even greater harm to wildlife and increased risks to public health.

Emma Hockridge, head of policy for farming and land use at the Soil Association, said: "Research is ***increasingly*** highlighting the harmful impacts of pesticide use on the environment and human health."

"Organic farmers show that it is possible to farm successfully without relying on synthetic pesticides and a lot more should be done to help all farmers adopt and improve these practical alternatives, which pose less risk to our soils, environment, and health."

<https://infogram.com/five-facts-about-pesticides-you-may-not-know-1h984w80er7d4p3?live>

#### JOURNAL : Farmers Weekly

Stale seed-beds and other cultural approaches can go a long way in managing blackgrass, but a robust residual herbicide programme is vital in getting the level of control needed for high cereal yields.

That's because survivors are very difficult to control with widespread resistance to herbicides like Atlantis.

Getting it wrong can prove costly with just 100 ears/sq m of blackgrass reducing wheat yields by 1t/ha.

See also: 10 ways to improve potato storage management

So what can farmers do to ensure residuals do their ***job*** this autumn?

Key steps to good residual efficacy

Good seed-bed quality (fine and firm) and the right seed depth will minimise crop effect

Aim to drill when the soil temperature is in single figures

Ideally, rainfall within two weeks of pre-emergence application

Pre-emergence: Avadex granules 15kg/ha, 1 litre/ha Movon plus 3 litres/ha Wicket

Peri-emergence: 0.5 litres/ha Pontos

Add 0.2 litres of adjuvant Backrow

Follow best practice for application

Timing of drilling

Both soil moisture and temperature affect residual herbicide performance, with cool, moist soils giving longer and better activity.

## En route to World Routes

Agrii regional technical adviser Will Foss explains that moisture is needed for the uptake of herbicide by weeds in the soil solution. Therefore, dry conditions hinder uptake.

With temperature, warmer soils lead to more rapid breakdown of the residual active, reducing the time it remains active against germinating weeds.

He points to last autumn, where residual herbicide efficacy at Agrii's Stow Longa trial site in Cambridgeshire was excellent.

The crop was drilled on 23 October in quite dry conditions. It remained dry the week after and then 0.5in of rain fell in the second week, which was enough to activate the residuals.

"Having rainfall within two weeks of application is the most important factor," he says.

However, while farmers can't predict when it will rain, soil temperature is something that they can measure and act on.

Soil temperature was constantly about 15C for the first half of the month, then it started to fall and by the end of the month, it was down to 9-10C.

He advises aiming for the "magical single figure" at drilling, as it will help residuals work for longer.

#### Product combinations

##### Actives

Atlantis – iodosulfuron + mesosulfuron

Avadex – tri-alleate

Movon – diflufenican + flufenacet + flurtamone

Liberator - diflufenican + flufenacet

Pontos - flufenacet + picolinafen

Wicket - prosulfocarb

Flufenacet is a key herbicide and should be at the heart of any residual programme. However, it needs to be partnered with other actives to deliver the required control and protect it from potential resistance development.

In Agrii trials, one stand out flufenacet product is Movon which at 1 litre/ha delivers 30g/ha more diflufenican than Liberator when applied at the same 240g/ha rate of flufenacet. It also brings flurtamone, a key active for grassweeds and a range of broad-leaved weeds.

While it's more expensive than the popular flufenacet product Liberator, across 31 conducted by Agrii between 2009 and 2018, it delivered 6% better control of blackgrass ears than Liberator.

In a modest blackgrass population of 500 ear/sq (if left untreated), this additional 6% control equates to an extra 0.3t/ha of yield, based on data from the Stow Longa blackgrass trial.

Adding Avadex in the pre-emergence programme brings another lift in blackgrass control. The final part of Mr Foss' recommended stack is prosulfocarb at 2 litres/ha.

"In bad situations, you can go up to 3 litres/ha to give that extra hit," he says.

This stack delivers five different actives and when coupled with late drilling (23 October), it was giving nearly 100% control of blackgrass heads in a farm trial near Brackley, Northamptonshire, in 2018.

## En route to World Routes

In tougher situations, a top up may be needed at the peri-emergence timing, especially as options are limited once blackgrass is beyond the one to two-leaf stage.

He has found Pontos to be particularly useful at 0.5 litres/ha, delivering 120g/ha flufenacet (total dose 360g/ha) along with some extra contact activity from piclinofen.

Opting for this approach also avoids adding more diflufenican, keeping the total dose below the 120g/ha limit to reduce the risk of potential problems in a following crop of oilseed rape.

### Adjuvants

While adjuvants are not herbicides themselves, they have been proven to give pesticides a boost.

Agrii has recommended the use of adjuvant Backrow with residual herbicides for some years. It is a specific long-chain oil that has performed consistently well in previous trials.

Across 42 trials from the last nine years, there has been an average 9% uplift in control of grassweed heads. Based again on an untreated population of 500 ears/sq m of blackgrass, this extra control equates to 0.45t/ha in extra wheat yield.

Mr Foss says the adjuvant helps to maintain a lethal dose of the residual in the weed germination layer in the soil, by binding with the clay particle. It also has a positive influence on spray quality.

So one question is whether an adjuvant can reduce the impact of a dry autumn on residual herbicide performance?

### Dry conditions trial

To test whether an adjuvant can help in dry conditions, Agrii tested Backrow last autumn at Stow Longa.

The trial looked at its performance at different soil moisture levels using irrigation to simulate rainfall after application of the pre-emergence herbicide.

Simulated rainfall improved residual performance by 10% in terms of numbers of blackgrass ears seen in June. "Again this highlights the importance of soil moisture."

However, the adjuvant did help to overcome the lack of rain by adding 7% extra control when used with the pre-emergence and 8% when added to the peri-emergence.

An uplift was also seen where moisture was available with the addition of Backrow, which took the final blackgrass control to an impressive 98%.

### Top application tips

Soil is a difficult target which to achieve adequate spray coverage, as there are many variable angles due to the random distribution of soil aggregates. Here are Agrii regional technical adviser David Felce's top spraying tips for residual herbicides.

Aim for a water volume of 200 litres/ha: Sprayer operators would prefer opting for 100 litres/ha, as halving water volume increases output by one-third. However, trials show this low water volume compromises efficacy, with 50% control at the low volume compared with 85% at 200 litres/ha.

Select the Defy 3D nozzle: The Defy nozzle is the proven performer, as the 83 degree fan produces fewer fine droplets than a standard flat fan and as a result is less drift. "This means more droplets are hitting the target." Best coverage is achieved with alternating the Defy nozzle forward and backward.

Aim for a boom height of 50cm where practical: Doubling the height to 1m increases the risk of drift tenfold, which again means less product hits the target, resulting in 20% loss in efficacy.



## En route to World Routes

Go no faster than 10-12kph: "Speed is the biggest enemy of accurate application." Going faster creates more turbulence, which increases drift.

Add an adjuvant to the mix: Use of Backrow results in a more uniform droplet size, giving better coverage of the soil and improved efficacy.

Ultra low drift nozzles: Be aware that target coverage may be compromised, as these nozzles produce fewer, larger droplets.

JOURNAL : Farmers Weekly

Compact calving, outwintering of all cattle and forage-only finishing is enabling herd manager Robert Huxley to run the 250-suckler herd at Yews Farm on the Longford Estate in Salisbury, largely on his own with a 2-2.5% mortality figure.

Cattle numbers were cut back from 450-head in 2016 after a decision was taken to control the herd's fixed costs.

This has successfully streamlined an already low-cost system, with the herd managing outdoors all year with no hay or silage and now using only one full-time labour unit.

See also: Commercial focus improves sales and EBVs in Angus herd

Extra staff are only brought in from the arable enterprise to help with gathering and working cattle. Other than that, Mr Huxley manages them alone, seeing only four calves die this calving period out of 235 and current mortality to weaning and sale at 0.5%.

Farm facts

Longford Farms, Yews Farm, Odstock

Vaccinating for IBR and Clostridia

Tested free for BVD Leptospirosis and Johne's

364ha of permanent pasture of which 131ha is water meadow for summer grazing

1,300ha of combinable crops in a six-year rotation

Crops grown include winter wheat, spring barley, oilseed rape, oats and peas

Longford Estate

Total estate covers 6,400ha

Aquaculture business produces 1,200t of rainbow trout/year

40% of the land is tenanted and the rest is farmed between two large farming partnerships

890ha of woodland, producing commercial firewood and willow for cricket bats

200 residential properties

13 miles of double-bank fishing on the Rivers Ebble and Avon

Owned by the 9th Earl of Radnor in possession of same family since 1717

With such huge alterations to the herd, the estate admits that budgets and costings need time to be calculated under the new regime to work out the impact on profitability.

## En route to World Routes

Further changes also came last year when the first finished animals from the herd – which is three-quarter-bred Aberdeen Angus – were sold.

Although initially unplanned, due to having a major surplus of heifers after a 45% reduction in cow numbers, Mr Huxley opted to finish 60 heifers off grass last summer.

“We would like to think we will be running a more profitable herd into the future because we are reducing our labour costs while increasing income from the new venture into selling finished animals,” explains Mr Huxley, who has been managing the herd for 15 years.

“We could get an extra £400-£500 a head for 60 heifers each year for very little cost as we intend to finish heifers on our grassland, which has no fertiliser.”

### Extensive system

No buildings or creep feeding are required by the herd, with all youngstock, cows and bulls outwintered. The cattle range on large expanses of permanent pasture from water meadows to chalky downland.

Steep-sided hills (1 in 4 slopes) and walks of up to 1.5 miles to the yard are common and mean cattle are sometimes only gathered three times a year, with small corrals in some fields enabling Mr Huxley to work very small numbers if required.

The herd is gathered no more than four times a year – TB testing, weaning, vaccination and a fly pour-on are the key **jobs**.

The foundation of the herd includes some Simmental, Charolais and Limousin genetics, although the farm has been focused on using purely Angus bulls since a change in farming policy 20 years ago.

### Herd productivity

By running a tight calving block, each of the three groups of cows calves for 9 weeks. By buying high index bulls on EBVs and cutting out any fertility or health problems, Mr Huxley has achieved a good level of productivity.

Cows are expected to produce seven to nine calves in their life, with cows lasting 10-11 years. Each year 70% of the herd is in calf within six weeks of the bulls going in.

The aim is to get 230 of the 250 cows in calf, although in recent years this has been surpassed, calving 236 (94.5%).

“When cows reach 11 or so we sell them straight off the farm, getting an Angus premium at Pitstock, Telford, and usually a cheque of £1,300-£1,400, so it does pay to cash the cows in and not hold onto them for the sake of it,” says Mr Huxley.

### Calving

Calving outdoors, the system requires the herd to calve themselves, with Mr Huxley assisting less than 1% last year and generally no more than 2-3%.

“We had a backwards calf, one set of twins and a swollen calf; apart from that, they managed on their own,” says Mr Huxley. “I don’t go out at night to watch them and I don’t help calves suckle – they don’t need it.”

A calving notebook records which cows are having calving issues and which bulls are leading to big calves. Freeze-branding is done on the shoulder for easy identification as this area stays cleaner, he explains.

Cows calve for three months from April to June, with four groups of cows run in herds (first calvers, second calvers, third and fourth calvers and older cows) to calve in batches every 10-14 days.

## En route to World Routes

Tagging and castration has often happened by day two or three of a calf's life. Temperament is very important and is a culling offence, although first calvers are given a chance for minor misdemeanours.

## Beef finishing

Although historically a store cattle-producing herd, the Longford herd took 60 heifers through to slaughter after selling the remaining surplus as breeding stock after the herd downsized.

Commanding an Angus premium, the heifers sold for £4.05/kg-£4.20/kg into meat processor Dawn Cardington through Farm Mark, after Farm Mark director Paul Jeenes advised the estate to consider selling the animals prime. Cows are sold to Pitstocks along with some prime animals, also through Farm Mark.

Last year's prime heifers mainly hit R4L (48.15%), RH4H (20.37%) and O+4L (22.22%), with one -U4L and three R3s.

Most youngstock are sold at 15 to 16-month-old stores off farm, with some sold at Frome and Salisbury.

<https://infogram.com/longford-herd-1h984wn50qld4p3?live>

## Outwintering

Wiltshire's light, chalky ground is ideal for outwintering on and the arable enterprise produces 90ha of stubble turnips and 40ha of winter grazing rye to winter the calves after they are weaned at 9-10 months.

The herd is usually taken off pastures by early November and moved to wintering ground until mid-March where cattle are given 50m x 60-70m of straw bales to nest and winter on stubbles.

Extra minerals and energy are supplied by mineral buckets – no hay or silage is given.

"The cattle eat the straw or nest in it as they wish," explains Mr Huxley. "They can feed on the blocks as and when and I can manage myself with no hard work feeding and mucking out through the winter."

## Bulls at Longford

Bulls are bought from Stirling each year and tend to run across 30 females each, with 11 bulls serving the herd, although some are required to bull up to 60 in a summer.

Bulls from the Tonley, Duncaziemere, Tree Bridge, McCornick, Lakewood and Haughton herds have worked well in recent years, says Mr Huxley.

"I study the EBVs and health status of the bulls – particularly looking for high milk percentages and ease of calving – and narrow them down that way, before having a look at them," he says.

## JOURNAL : Farmers Weekly

As well as being leader of the Liberal Democrats and a former cabinet minister, Sir Vince Cable is well versed in the fundamentals of farming; his wife Rachel Smith raised suckler beef on a New Forest smallholding.

It gives him an insight into agricultural policy and the challenges that lie ahead with Brexit looming, which he believes will be a disaster for the farming sector.

"The Chequers accord may cause less damage than 'no deal' at all, but it has serious problems," he says. "Nobody has explained how the proposed two-tier tariff system is actually going to work, it is far from clear that it can solve the problem of the Irish frontier, and it will not prove acceptable to Brussels."

See also: Farmers 'could go bust without subsidies', say Lib Dems

## Trade concerns

For agriculture, Sir Vince sees three big issues – trade, labour supply and future support.

“If we get a ‘no deal’, the trade implications for agriculture will be pretty horrific,” he says. “In industrial goods, there aren’t too many tariffs. But for agriculture, they are massive and if there is no deal, those come into effect.

“About two-thirds, or £12bn, of UK food exports go to the European Union and that would stop – it’s as brutal as that.

“I can understand the logic of not wanting to stay in the single market because of the freedom of movement issue, but the decision to leave the customs union is utterly perverse,” he adds.

“Leaving it creates enormous problems, not just for the Irish frontier, but for the whole supply chain. It’s completely unnecessary and it cuts us off from the existing framework of trade agreements that the EU already has with large numbers of other countries.”

## **Seasonal** labour

On **seasonal** labour, Sir Vince remains sceptical – despite the recent announcement of a new pilot scheme by Home Secretary Sajid Javid.

“The Home Office is very bureaucratic and tends to treat all **foreigners** as a problem,” he says. “The idea that they will devise some sympathetic, business-sensitive model requires an enormous leap of faith.

“And it’s not just agriculture. Large parts of the country with upland farming also depend very heavily on tourism, and the hospitality industry is just as vulnerable as farming to labour shortages.”

## Long-term support

Sir Vince also questions the government’s long-term commitment to supporting agriculture with taxpayers’ money.

“At £3bn, direct payments represent a substantial amount of overall farm income,” he says. “Although the government has promised to keep this going to 2022, after that it will come under enormous pressure to cut the subsidy level, given all the pressures on other areas of public finance.”

Sir Vince says it is “ironic” that the Common Agricultural Policy has come in for such criticism, given the reforms that have already taken place.

“The direct payment system is no longer based on subsidising production. Many of the things people are asking for in terms of better stewardship are already happening. There is not enough acknowledgement of the extent to which the CAP has already been reformed.”

The replacement domestic agricultural policy is set to focus future support on environmental delivery – something Sir Vince agrees is essential. “But I’m not sure the balance is right. I don’t think the farmers have been at the centre of [Defra secretary] Michael Gove’s thinking.”

## Self-sufficiency

Having stressed the importance of productive agriculture, Sir Vince is more cautious when it comes to issues of self-sufficiency.

“I would not put a figure on it to define what self-sufficiency is – we don’t do it for any other sector,” he says. “Yes, there is an argument for producing as much stuff as close to home as possible. But I’m not arguing for a closed border approach.

"There are some areas where liberalisation of trade makes sense, sugar being a case in point. But there is also a strong argument for supporting domestic production, providing it is not done in an extremely costly, protectionist way."

#### Second referendum

With all the turmoil surrounding Brexit and fears of a 'no deal' scenario, Sir Vince is far from convinced it will actually happen at all and remains a keen supporter of a second referendum on the issue.

"We're getting to a position where, in two months from now, it's likely that parliament will not endorse a 'no deal', and will not endorse the Chequers compromise either. When we confront this dilemma, the sensible option will be to ask the public: 'is this what you really wanted or would you rather stay in the European Union?'"

"Now they are better equipped to understand what's on offer, they may have a different view. In places like Switzerland, the idea of a confirmatory referendum is not unusual at all."

#### Vince Cable on...

Rural crime "All major police forces need to have a rural task force. Money is not limitless and I was part of a government trying to enforce financial discipline, but the truth is we do need more police officers with specialist capacity for dealing with rural areas."

The supply chain "One of the things I did when I was secretary of state for business was to set up the Grocery Code Adjudicator. The problem is that it only covers the people who deal direct with the supermarkets. I would like to go back and strengthen the rights for people on the second and third tier of the supply chain who often bear the brunt of aggressive approaches from above."

Rural housing "The price of housing in relation to people's earnings in rural areas is just astronomic. The planning system is very restrictive and the second home ownership problem is well known. We need a combination of making it easier to build new housing – especially social housing – and penalties on second home ownership, such as higher council tax surcharges and higher stamp duty on second homes."

Public access "The right to roam principle is a good one. Obviously it should be done with properly managed routes and respect for livestock, but as far as possible we want the countryside to be open. If you want a strong rural economy, townspeople must feel they have an interest in it."

Badger culling "It should very much be driven by the scientific evidence. Sentiment should not drive the policy. I was a member of the cabinet that approved the existing policy back in 2013. It is stupid for politicians to get involved with quarrels with their scientific advisers."

Glyphosate "Again, it's down to the science. The worst thing is when ministers get a bee in their bonnet; they have read an article that challenges the consensus and they jump on the bandwagon. That's a very dangerous thing to do."

His political future "There is much going on. There is the possibility of an early election, there is Brexit, there are discussions about new party formations. I'm going to be leading us through all of that. But equally I'm not Robert Mugabe. I'm not going on forever."

#### JOURNAL : Farmers Weekly

Let's face it, it doesn't get much better than tucking into a nice steak, especially when you have something to celebrate (maybe even just making it to Friday).

Rare or medium, sirloin or fillet, we all have our preferences, but one thing that we can all agree on is that for the perfect eating experience, your steak must be tender, juicy and flavoursome.

## En route to World Routes

I have spoken before about the need to improve the consistency of beef products in the UK, and although numerous changes need to be made for this to be achieved, for me there is one simple change that will help significantly.

See also: More articles from Josh Dowbiggin

The answer is to go native. There is a reason why the premium beef ranges of all the major retailers are breeds such as Angus or Hereford, and it isn't because it looks good on the label.

They offer an element of consistency when it comes to the eating experience that continental-sired cattle cannot match. I am not suggesting breed is the only contributor to eating quality – far from it – but it certainly has an influence.

#### Change in mentality

However, for these breeds to have a real impact on the beef business, they need to move away from the "premium mentality".

Premium product offerings will only ever impact a certain portion of a consumer population, purely because of the price tag. But who says native beef has to be expensive?

These breeds are built for easy management and low-cost production systems, so in reality they are the profitable option for farmers, regardless of premium.

The eating quality benefits presented by these breeds, coupled with the likelihood that Brexit will mean a change in the grading system and the need for a lower-cost, forage-based approach to beef production, puts native breeds in a great position over the next decade.

Until we see a change in beef grading system, native breed premiums will have to remain in order to incentivise beef producers against producing what the EUROP grid tells them to.

But when the grading system incentivises quality as much as it does quantity – then you will likely see a major shift towards native, and not just at the premium end of the market.

#### Breeders beware

For now, the responsibility falls with the breeders of the likes of the Hereford and the Aberdeen Angus to make them the best they can be.

It is vitally important that these breeds continue to improve on economically important traits such as growth and conformation.

But even more important is that these breeds do not stray away from and continue to improve on the traits they have always been known for.

Calving ease, easy-fleshing, eating quality and maternal traits cannot take a back seat to performance. Don't try and make these breeds something they aren't meant to be – continental.

To win an election, a political party must achieve two things. First, keeping their own voter base happy, and second, becoming attractive to middle-ground voters who could vote either way.

This is the same for the customers of your breed, the long-term user of your breed being your voter base, and the farmer considering it being the middle-ground voter.

Yes, growth rates should be improved, but not at the cost of calving ease. Yes, conformation should be improved, but not at the cost of eating quality and fleshing ability.

Genetic antagonisms make this difficult, but with the recording and reproductive technologies available to breeders, it's not impossible to appeal to all.

JOURNAL : Farmers Weekly

Liveweight lamb prices are edging lower as sales numbers head towards their autumnal peak.

The average price in Great Britain for an SQQ lamb, one weighing between 25.5 and 45.5kg, was 170p/kg yesterday, a fall of 8.7p/kg on the previous week.

This would put the value of a typical 40kg lamb at £68, down around £3.50 on week-earlier levels.

See also: Why on-farm ram auctions are growing in popularity

Market reports today indicate that prices have fallen further, with Kent-based Ashford Market seeing prices closer to 165p/kg.

Lamb prices normally fall during September as sales numbers hit their peak and this year looks to be no exception, although throughputs are lower as more lambs than average died during the harsh spring weather.

Industry insiders report that around one million fewer lambs had been tagged by the end of July than the previous year.

A strengthening pound will also do the export trade no favours, with the pound worth 1.12 for the first time since mid-August, after dropping to 1.10 around the start of September.

At current prices that would mean each 40kg lamb would cost an importer more than 1 extra.

Lower domestic demand

Rebecca Osborne, AHDB red meat analyst, said the long-term decline in demand for lamb among UK shoppers also showed no sign of abating.

There has been a 14% year-on-year decline in lamb sales in the 12 weeks ending on 12 August, the most recent set of statistics collected by market research firm Kantar.

Ms Osborne said the hot weather had driven more consumers towards more typical BBQ food, with the volume of beefburgers sold up 15% and sausages rising 3%.

The problem had been exacerbated by an average lamb retail price rise of over 40p/kg, as retailers chose to put other meats on promotion.

JOURNAL : Farmers Weekly

A visa scheme that will allow 2,500 migrant farmworkers into the UK after Brexit falls short of requirements, say industry leaders.

The two-year pilot scheme will allow non-EU migrant workers to work on UK farms for up to six months during peak times of the year before returning home.

See also: Visa scheme announced for migrant farm workers

The NFU has welcomed the announcement of the scheme, which follows a lengthy campaign and warnings that a shortage of workers is hampering food production.

NFU president Minette Batters said: "Farmers and growers have seen worker availability tighten significantly in recent years, with the shortfall to July this year reaching 10%.

“Growers will take great confidence in knowing that the government is listening during what have been extremely testing and uncertain times for the sector.”

<https://infogram.com/in-numbers-seasonal-farm-workers-1hnq41197prp43z?live>

More workers required

But other farming organisations said the scheme did not go far enough – with only 2,500 workers coming into the UK and some 80,000 workers required.

Country Land and Business Association president Tim Breitmeyer said he was pleased the government was finally showing signs of taking action to ease the labour shortage.

But he warned: “This pilot must only be a starting point, and only scratches the surface.

“It will allow for just 2,500 seasonal workers, while the number of seasonal and permanent migrant workers currently employed by rural businesses across the UK is far greater.”

Broader solution needed

Mr Breitmeyer said a much broader solution was needed to address concerns about availability of labour after Brexit across the rural economy.

This included seasonal farmworkers but also longer-term professionals and managers in agriculture and other rural sectors such as tourism, food processing and the veterinary profession.

The British Growers Association said the pilot scheme fell “well short of the numbers of labourers required” to sustain the fresh produce industry in Britain.

British Growers chief executive Jack Ward said the British fresh produce sector needed 75,000-80,000 seasonal workers – a number expected to rise to 85,000-90,000 by 2020.

“The government has been made aware of this figure in our discussions,” said Mr Ward.

Step in right direction

“This announcement is a step in the right direction, but the scale of the current shortfall in seasonal labour far exceeds the numbers involved in this latest scheme,” he said.

Mr Ward said it was important that UK growers had access to seasonal labour 12 months of the year to cover the spread of crops grown in the UK.

“Without access to an adequate supply of seasonal workers there is a danger we could be facing a real threat to the UK’s capacity to produce crops of fresh fruit and vegetables. Farms are already reporting staff shortages.

“We welcome the fact that the government is addressing this issue, but the scheme needs to develop if we are to have a sustainable, successful fresh produce industry post Brexit.”

Too little too late

James Somerville-Meikle, of the Countryside Alliance, said: “Unfortunately, what the government has produced will be too little too late for many sectors of the rural economy.”

It was disappointing that the new scheme would be limited to fruit and vegetable farmers – which meant sectors such as forestry and game farming will not benefit.



The 2,500 workers allowed into the UK under the scheme provided little reassurance when UK farmers and producers employed some 80,000 seasonal workers annually.

National Pig Association chief executive Zoe Davies said it was important to recognise that other farming sectors needed access to permanent EU labour.

“The UK pig industry is hugely reliant on permanent EU workers to function,” she said.

“Without them, the UK pig sector will not be in a position to grasp the opportunities Brexit might present in the global or domestic markets.”

JOURNAL : Farmers Weekly

Politicians have been showing their support for British farming by wearing wheat pin badges on the NFU's Back British Farming Day (12 September).

The badges are made of British wheat and wool and symbolise the importance of food and farming in Britain.

For the first time, the Palace of Westminster is serving 9,000 “Back British Farming” meals in all its canteens to celebrate the great food produced by British farmers.

See also: How to prepare and manage your farm business for Brexit

It's #BackBritishFarming Day! We're hoping to see lots of MPs showing their support for our British farmers today.  
pic.twitter.com/OjnpNvrnxr

National Farmers Union (@NFUtweets) September 12, 2018

Welsh Conservatives' shadow rural affairs secretary Andrew Davies said: “The importance of enhancing and improving our levels of food security across Britain cannot be underestimated and we need to do more.

“Back British Farming Day is a great opportunity to promote what is the backbone of life in Wales and across these isles – and that's farming.

“Farmers are the original friends of the earth and custodians of our environment. You simply cannot divorce agriculture, food production and the environment and that's why it's vital governments of all colours support this crucial industry.

“We produce some of the highest-quality food in the world – but it's imperative we do more to secure the long-term future of domestic agriculture and food production.”

Huge thanks to Lieutenant Colonel @TomTugendhat MP for your support on #BackBritishFarming day.  
pic.twitter.com/7PFUw4P7L0

National Farmers Union (@NFUtweets) September 12, 2018

Delighted to see the Shadow Cabinet wearing their wheat pin badges in support of #BackBritishFarming Day.  
@UKLabour pic.twitter.com/cZ4xYp1CM9

National Farmers Union (@NFUtweets) September 12, 2018

Always happy to back local farmers in Torfaen @NFUtweets @NFUCymru #BackBritishFarmingDay  
<https://t.co/phEm0LMBF8>

Nick Thomas-Symonds (@NickTorfaenMP) September 12, 2018

NFU food report

## En route to World Routes

On the same day, the NFU launched a food report – UK: A Nation United by Food – which will be sent to hundreds of MPs across the country to open up discussions about the future of food in Britain.

The document raises important questions about what Britain needs for a thriving domestic food industry.

It focuses on four areas, including how to feed a growing population, the UK diet and the rise of obesity and pressures on the NHS, maintaining food standards amid the threat of cheap imports and working with nature.

NFU president Minette Batters urged MPs to use the report to broaden the conversation about the future of British food to include consumers, producers, processors, retailers and policy-makers.

“The privilege of a safe and secure food supply must not be taken for granted,” she said.

“By starting a nationwide conversation we can work together to help plot the course for the future of food in Britain.

“If we do this, the benefits – economically, socially and environmentally – will be great.”

How you can support Back British Farming Day

Tweet your MP on the day, asking them to wear their #BackBritishFarming wheat pin badge at #PMQs Don't forget to include the hashtag #BackBritishFarming

Retweet #BackBritishFarming tweets on the NFU's Twitter site @NFUtweets

It's #BackBritishFarming day this Wednesday (12th Sept), Here is Jonathan, one of our livestock farmers who is #proudtoproduce beef for your Sunday roast lunch! Tag your MP and ask them to support Back British farming Day at @UKParliament. [pic.twitter.com/QjY645uJ75](https://pic.twitter.com/QjY645uJ75)

NFU East Anglia (@NFUEastAnglia) September 10, 2018

#BackBritishFarmingDay Providing feed, fuel, bedding, environmental goods and the landscape which is taken for granted. Let's celebrate what farming is! [pic.twitter.com/S21ErrvUVC](https://pic.twitter.com/S21ErrvUVC)

Thomas Bradshaw (@ProagriLtd) September 12, 2018

JOURNAL : Farmers Weekly

As Brexit approaches, the volume from those who oppose the democratic decision of this nation to leave the European Union gets louder and louder.

We've heard a lot from two former prime ministers in this debate. One is John Major, the man who pushed the Maastricht Treaty through parliament, laying the foundations for the euro and significantly expanded cooperation between European countries.

See also: No-deal Brexit risks flood of imported chicken

The other is Tony Blair, the man who led this country into a war based on alleged misinformation. They make an interesting pair, neither keen on the outcome of a democratic referendum, to which all parties agreed to abide.

Then we come to the EU itself. Rocked by the decision of our people to leave the EU, they seem bent on extracting every last penny, every last concession. Clearly some have a desire to “punish” the UK.

Free-trade treaty

The EU has recently developed a free-trade treaty with Canada that doesn't involve Canada abiding by the core rules of the EU but has abolished 98% of all tariffs. Why can we not have a similar arrangement?

Let us remember that the UK's trade is already growing with the outside world. Some 55% of our exports go to non-EU countries. The world of growth is not the EU, but the Americas, the Pacific Rim, Africa, India and China.

I'm forever told that "no deal" will be a disaster for our great farming industry. Why? Will the EU demand for sheepmeat fall to zero after we leave? No. But what may change is the EU charging a whacking great tariff on it.

If that is to be the case, then we need to be ready. We need to plan on transitional aid for our sheep sector and others that are affected in this way. We also need to bolster our national marketing budget, give AHDB the means to go out into the world and sell those products that are displaced.

But it's not all one-way traffic. Will the Spanish salad growers not want to sell us their fresh salad crop, the French their cheeses, the Dutch their pork and bacon, and the Irish their beef, milk and horses? Of course, they will and, even in a no-deal scenario, they will not want to see us impose our own tariffs on them.

## CAP

As I went around the country during the referendum, I heard people talking about the need for freedom from the rigours of the CAP; the need to develop an agricultural policy more in tune with our way of working, our environment and our standards. Currently, we only produce 60% of our food, compared to 75% in the early 1980s. What an indictment of the CAP and what an opportunity for the industry.

Since the referendum, I've seen Defra and its ministers taking every opportunity to get the views of all stakeholders as to how we may develop the sector. Within the department, ideas are being worked up. In my own area of animal health and welfare, we want to see our industry become the world leader.

There is so much we can do, freed from the shackles of the EU – from finding a new TB test to providing help to improve our productivity and competitiveness, and using R&D to improve our means of production.

To be honest, I'm not surprised at the apparent lack of progress in negotiating with the EU. It was ever thus. But at the end of March next year, we are leaving the EU. I hope we part as friends and neighbours, co-operating in trade, security and a myriad of other issues. I have no fear for the future of farming.

## JOURNAL : Farmers Weekly

There's nothing I like better than being part of an angry mob in a saloon.

So it was that I set off to a local pub to listen to a combined Animal and Plant Health Agency (APHA) and TB Advisory Service (TBAS) presentation on "Bovine TB In Your Area" (in this case, East Sussex).

The place was soon packed with farmers looking just as ornery as myself, hollerin' for a showdown.

See also: Stephen Carr is reassured by Dyson's farming losses

First up was small town mayor (I mean, NFU regional director) William White, who knows how to stoke an angry mob to good effect when he gets the chance. He promised us a couple of quick presentations before we got into questions and the politics of bTB.

A murmur of anticipation rumbled round the room. I licked my lips.

Next up was an understandably nervous looking representative from the APHA. Julio Diaz, a senior veterinary inspector, told us what we East Sussex cattle farmers already knew: bTB is still wreaking havoc among the county's dwindling number of beef and dairy herds.

At the end of his presentation there were angry questions about why annual testing had reduced East Sussex cowpokes to "second-class citizens".

## En route to World Routes

No one, it was claimed by one member of the audience, wanted to buy our store cattle “compared with cattle farmers from Kent” (who only have to test their stock every four years and can sell them with no post-movement testing requirement).

Yeah, someone wanted to know, how many bTB reactors had there been in Kent? Mr Diaz thought maybe one last year, but other than that “none at all for the previous four years”.

The audience was having none of it. “A vet told me about a farmer who bought cattle from Kent and four of them had TB,” said one farmer. Someone else wanted Kent cattle tested annually “like us” (I thought, “why not every month?”).

I surveyed the audience looking for a smug face – a sure sign of a Kent farmer.

With the tension now at boiling point, next to take the stand was Sarah Tomlinson of TBAS.

Ms Tomlinson is famous in these parts for writing a provocative article in the September edition of the NFU’s own British Farmer and Grower magazine in which she dares to suggest that bTB is not much different to Johnes or BVD – just another disease of cattle that farmers should screen for.

And, hey guys, she told us, you should be grateful that, in the case of bTB, it’s the government that pays most of the cost of testing and compensation for animals you are told to cull.

You had to give her full marks for even turning up to face this crowd after writing that, but surely she wasn’t going to dare repeat it to our faces?

It soon became apparent that not only was she going to do just that, she even offered us the services of TBAS to come up with bespoke strategies for our individual farms to reduce the risks of bTB.

As Mark Twain observed first-hand more than a century ago, it only takes one brave man to quieten a mob. And by the time this brave woman had finished with us, we were meekly reduced to borrowing biro from one another to fill in our TBAS “We value your feedback” forms.

“Was the meeting useful?” I ticked “yup.” “Did you learn anything new?” I ticked “yup.” Will you be visiting Kent in the near future? I ticked “Hell, no.”

JOURNAL : Farmers Weekly

Farmers should be asked to maintain public footpaths on their land in exchange for government payments post Brexit, say ramblers.

The walking charity Ramblers, formerly known as the Ramblers’ Association, says landowners should be rewarded for adding new routes or improving existing paths on their land.

The charity is calling on the government to make access to the countryside and the path network a key part of its “public money for public goods” system under the new domestic agricultural policy post Brexit.

See also: Know the law when farming near footpaths

Agriculture accounts for 71% of land use in the UK, including a large proportion of the nation’s paths.

Landowners have a legal duty to keep paths on their land clear. But a YouGov poll of 1,848 people found more than two-thirds (69%) had experienced problems with footpaths in the countryside, including overgrown paths and blocked gates.

YouGov poll

## En route to World Routes

The vast majority (85%) of adults surveyed in England and Wales said they believe that being able to experience the countryside is important for children's understanding of the environment and food production. The results also showed that more than eight out of 10 adults said visiting the countryside is good for their physical fitness (83%) and mental wellbeing (82%).

But almost two-thirds (65%) agreed that that farmers should receive less funding if they fail to maintain public footpaths on their land.

Tompion Platt, Ramblers' director of advocacy and engagement, said: "Farmers and other landowners should be expected to meet their existing duties to keep paths on their land clear.

"We should also remember that countryside visitors can be a boon to rural communities. The path network helps people learn more about the important work undertaken by farmers, benefits tourism and local businesses."

But CLA president Tim Breitmeyer said his organisation's Land Management Contract proposes ways farmers and landowners could be rewarded post Brexit should they choose to help enhance existing public rights of way, including for visitors with limited mobility, and to provide new access on a voluntary basis.

"Users of public rights of way also have an important role to play. This includes leaving gates as they are found, keeping to paths, controlling dogs and respecting the countryside as a place of work as well as recreation."

Countryside access 'a public good'

A Defra spokeswoman said: "Leaving the European Union gives us the opportunity to shape the future of our farming industry and protect the countryside that we all enjoy.

"Our recent consultation specifically identified access to the countryside as something that could be recognised and rewarded as a public good. We have also been clear that farmers and land managers have a vital role to play in educating the public and building deeper links to the countryside. We will bring forward our plans for legislation shortly."

JOURNAL : Farmers Weekly

An expert in agricultural economics has questioned whether Defra will achieve its goal of abolishing direct payments by 2027.

Plans to phase out direct payments over seven years – ending in 2027 – are outlined in the government's Agriculture Bill, published on Wednesday (12 September).

Direct payments – which account for more than half the income on many farms – will start to be simplified and then phased out after the UK leaves the EU.

See also: Analysis - How Michael Gove's Agriculture Bill will reshape UK farming

Defra secretary Michael Gove wants to replace the payments with a new system of public money for public goods, largely requiring farmers to undertake environmental work on their land.

But Ian Bateman, director of the Land, Environment, Economics and Policy Institute at Exeter University, questioned whether the government would meet its target.

Professor Bateman said: "The intention to end the public subsidy of massive farms just because they are big and irrespective of anything else has to be a good thing.

"Replacing this by a policy of "public money for public goods", principally environmental improvement, is also to be welcomed.

Speed of change

## En route to World Routes

“However, the speed of change is very slow, not being completed until 2028.

“A lot can happen in politics in a week, so a 10-year implementation period raises some concerns about what will actually be delivered.”

Ian Ashbridge, farm business consultant at Bidwells, said the phased elimination of direct payments could not be guaranteed until the UK had agreed its departure from the EU.

The Agriculture Bill failed to articulate a comprehensive food and farming policy and left farmers and landowners no clearer about how they would be supported, he said.

Mr Ashbridge said: “The announcement is short on detail and will leave farmers unclear as to what is being asked of them in the future.”

But Jeremy Moody, secretary of the Central Association of Agricultural Valuers, said farmers should plan for Basic Payment Scheme (BPS) payments to be phased out.

## Clear time frame

“We have been given a clear time frame for the complete removal of BPS for English farmers. BPS is to be phased out from 2021 to 2027 and then it will be gone.

“That gives a time window in which farmers and their advisers should review their businesses, consider how best to handle the likely erosion of margins, and deliver the necessary changes.”

The Agriculture Bill states that the agricultural transition period for phasing out direct payments in England is seven years starting in 2021.

This means the final direct payment received by farmers would be in 2027, with no direct payments at all from 2028 onwards.

However, the Bill also reserves the right for the government to extend the transition period should it deem that doing so is necessary.

## JOURNAL : Farmers Weekly

Farmers who are regularly falling short of Red Tractor standards will be faced with more frequent on-farm inspections from November as the organisation seeks to strengthen the integrity of the farm-assured brand.

Announcing the new “risk-based” inspection regime at a briefing in London on Monday (10 September), Red Tractor Assurance chief executive Jim Moseley said the ultimate aim was that “every signed-up farmer should be complying with every single standard, every day of the year”.

See also: What’s it like to be a Red Tractor assessor?

“For the vast majority of farmers in the UK, that regime already works,” he said. “But obviously there are always opportunities for improvement.

“We will increase the inspection frequency for those farmers who are failing to comply with all of the standards every day, and many of those audits will become unannounced audits.”

This would start in November 2018 and would give consumers greater confidence in the robustness of the scheme.

Currently about 60,000 farmers face an annual inspection, explained Mr Moseley. Given that data is routinely collected by Red Tractor inspectors to measure the level of compliance, it is easy to spot those farmers who need more scrutiny to up their performance.

What is Red Tractor up to?

Revised inspection regime to encourage greater compliance

Plans for a "complete assurance" scheme, adding organic, environmental and animal welfare modules, with specific logos

New £1.5m TV, print and social media campaign

Streamlined

Mr Moseley confirmed there was no plan to reduce the number of inspections for fully compliant farmers. "Any consumer would expect farmers and growers to get at least an annual inspection," he said.

However, there are plans to streamline the inspection regime, using technology to capture the information farmers record on a daily basis anyway, in order to determine compliance with Red Tractor standards.

"We want to work with those excellent farmers to develop an online portal so we can collect the data, which will make our inspections a lot shorter as we will not need to do the level of record-keeping that we currently do on farm."

'Complete assurance'

As well as beefing up the inspection regime, Red Tractor also announced plans to become the "flagship of British food and farming" by including new "modules" to stand alongside its basic "core" standards.

These new modules could cover things like organic farming, environmental improvement or enriched animal welfare.

The aim is to provide a "one-stop shop" so consumers does not become confused by the plethora of other assurance schemes that already exist to meet these specific interests.

"Our aim is that, ultimately, Red Tractor will be able to offer that broader choice," said Mr Moseley.

It will result in much clearer labelling for consumers, simpler auditing for farmers and reduced cost for processors and retailers.

Mr Moseley confirmed that Red Tractor had already been in discussion with Linking Environment and Farming (Leaf) Marque and the Soil Association to gauge interest in a collaborative approach, and had invited the RSPCA to open discussions.

The aim is to launch a new set of modular standards by the end of 2019, once international benchmarking and further consumer research has been completed.

JOURNAL : Farmers Weekly

Early sales of Scotch Mules have seen lambs back £3-£4 a head and shearlings back by up to £10-£20 despite many sale yards reporting much smaller throughputs.

August and September shows of Scotch Mules have indicated the uncertainty of Brexit and the effect of challenging weather on sheep and buyers' budgets.

However, a strengthening cull sheep market and much-improved late summer grass growth across many regions are bullish factors for trade going into the autumn, say auctioneers.

Markets have also noted that comparisons are being drawn with last year's very firm trade, with many 2017 sales up on the year.

## En route to World Routes

## Castle Douglas

Ewe lamb and shearling numbers were back 14% at Castle Douglas, where Robin Anderson, managing director at Wallets Marts, says a combination of factors have dropped averages.

Shearling numbers fell to 2,986 and the average dropped £4.25 to £128. Lambs dropped £7.92 to level at £92.91 for 7,266 sold.

See also: Cautious breeding sheep sales see some averages back

He told Farmers Weekly that Brexit, tighter fodder supplies, the increased costs incurred last winter and rising feed prices are combining to create "a general lack of confidence".

"Nobody knows what effect Brexit is going to have, but everyone you speak to seems to think the sheep sector could suffer the worst," said Mr Anderson. "Lambs are bought for a five-year project, and Brexit is creating longer-term uncertainty."

He said recent sale numbers had been affected by higher mortality during the difficult early spring period and many hogs being culled when the lamb price skyrocketed in the new year.

"Top pens weren't back as far, but second and third pens were back more for our Mule lamb sale. Some buyers weren't forward this year," said Mr Anderson

Last week's (3 September) Blackface ewe lamb sale saw the opposite trend, with trade £8 higher and less money available for the top pens, but more interest in the second and third pens. A total of 1,940 ewe lambs averaged £87.76 compared with 2,726 making £79.83 last year.

## Caledonian marts

A 50% increase in shearling numbers led to a £21 fall in averages at Stirling Caledonian marts, where 1,019 head averaged £114.50 on 31 August.

In the lamb ring, 2,850 lambs (-5.5%) fell by £4.43 on the year to make £90.75.

Auction operations manager Alastair Logan said a lot of lambs were much smaller than last year, which hit lamb averages, while shearlings were affected by supply and demand, with buyers being able to "pick and choose".

"Half the gimmers [shearlings] were lacking in quality, but that's understandable because of the tough winter and lack of grass. Gimmers need grass, whereas lambs can thrive off their mothers."

He added: "Some vendors had nearly as many lambs, but other people were selling half the numbers – it was a tough winter."

## JOURNAL : Farmers Weekly

British sheep producers need to address their changing market and consider adopting a system that increases output in order to survive the challenges of Brexit, according to an international consultant.

Bob Abband, who has 25 years' experience working with flocks in countries such as Saudi Arabia, Dubai and Iran, believes that the UK needs to move away from the more extensive, low-input, low-cost sheep system and chase output.

"I think the structure of the market in the UK, like everywhere else, is changing," he told delegates at the National Sheep Association South Sheep event on Saturday 8 September.

"I believe sheep farming is a business and should be profitable through high output. People are running after jobs with high pay. I haven't seen anyone chase prosperity by going on a hunger strike."



See also: How breeding for prolificacy can increase profit per ewe

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Defining output as the number of lambs born, reared and sold, he said that intensive lambing systems could increase output. He also said using more prolific ewes, changing the time of breeding and being strict on replacements could help.

“Don’t compromise production to keep ewes and lambs a long time. The production of a ewe is only about four years,” said Mr Abband.

The three system changes he proposed were:

#### 1. Synchronising

By synchronising in September/October, producers can get a shorter lambing period and uniform growth of lambs that can be sold at the same time.

Mr Abband said farmers should aim for a two-to-three week tupping period and two-to-three week lambing period.

The extra costs incurred would amount to £4-5 a ewe, but these costs can be offset by the advantages, Mr Abband said.

Advantages

Disadvantages

Normal breeding and lambing time to use spring grass

Better weather conditions for outdoor lambing

Short tupping and lambing

Better lamb survival due to better control at lambing

Uniform growth of lambs

Block lamb sale – good sum of cash into the account

The cost of synchrony

Extra **seasonal** labour

Intense lambing requires better hygiene control due to faster bacterial build-up

#### 2. Advancing lambing to December by synchronisation

By moving lambing to December, producers can target the peak price period for sale. December lambing, for farms that can support indoor lambing, is the quickest way to improve their income, Mr Abband reckoned.

“Between April to early June, you can fetch the highest prices,” he advised.

Advantages

### Disadvantages

Higher value of sale, selling in April-May market

Uniform crop of lambs

Intensive tupping and lambing, higher lamb survival due to better supervision, more free time for doing other things

Better control of nutritional management for ewe and lambs

Indoor lambing facility required

Extra seasonal labour if required

Extra feed supplement needed for ewes and lambs

More rams needed to cope with shorter tupping time – if synchronising, you need one ram for five to 10 ewes. Using AI or batch synchrony can reduce number of rams needed

Intense lambing requires better hygiene control due to bacteria build-up

### 3. Lambing three times in two years

Working on a system of lambing every eight months can maximise the production of the ewe and increase gross margin by about 40%, Mr Abband said.

Based on a gestation period of five months, lactation for two months and one-month break, ewes can produce three lamb crops in two years.

### Advantages

### Disadvantages

Maximise the use of the ewe's productive life by producing nine to 10 lambs v six lambs if you are achieving lambing of 150%. Ewes' productive life is four years

More uniform crop of lambs at time of sale

Much better gross margin – margin increased by 41%

Better cashflow by bringing in large value of sale every eight months on a regular basis

Requires more intense reproductive and nutritional management for ewes and lambs to optimise liveweight gain to reach the market size at the age of 120 days post-lambing

Not suitable for every farm

Requires good indoor facilities

Requires plenty of fit and fertile rams

Higher annual ewe depreciation

Increased variable cost in form of feed supplements and seasonal labour

JOURNAL : Farmers Weekly

## En route to World Routes

People need storage for all sorts of reasons at different points in their lives. Farmers Weekly looks at the growing market for self-storage and the opportunity it offers farmers. We spoke to four experts to explain what renting out storage entails.

## Self-storage facts

A large and growing market with a turnover of more than £540m a year

The Self-Storage Association estimates that there are more than 1,430 sites across the UK

More than 300 sites offer mainly container storage

Average occupancy rate in 2017 was 75.8%, slightly higher than in the previous year

Income averaged £22.68/sq ft in 2017

London net rental rates are double those of the East Midlands or the North

More than 70% of self-storage users live within 20 minutes of their unit

Is planning permission needed?

As for any change of use from agriculture, planning will be an issue. Traffic and access are likely to be the main considerations.

The planning process should take about eight weeks from submission of the application.

Small-scale operations (up to 500m<sup>2</sup>) may be carried out under permitted development rights, although these cover only the change of use and no building works.

Permission for containers in yards is harder to get and in the green belt almost impossible. Such ventures would not be subject to any permitted development.

Brian Barrow, managing director of consultancy Acorus

See also: More diversification advice

## Tax

The tax implications of changing the use of buildings can be significant and long-term.

Different elements of expenditure attract different rates of relief – get a detailed quote and invoices so that relief can be properly allocated.

The first £200,000 of expenditure on plant and machinery and integral features attracts tax relief at 100% a year for each business. Containers could qualify as plant and machinery but take advice on this.

After this, an 18% writing down allowance can be claimed for plant and 8% for integral features.

VAT must be charged on the storage or rental fees.

A change of use can affect the inheritance tax (IHT) position. Non-agricultural use means the assets may not qualify for agricultural property relief (100% relief) from IHT, but might attract business property relief, also at up to 100%.

Such ventures are often run as part of the main farming business, but it is important to cost them separately.

Consider whether a separate business structure should be used, for example a separate company, sole trader or partnership.

## En route to World Routes

The impact on any potential capital gains tax liability and reliefs should also be considered.

Mark Chatterton, director of accountant Duncan & Toplis

## Legal risks and obligations

In some cases gas safety certification and regular electrical and health and safety checks will be needed.

Even if the storage building doesn't have any, asbestos in a building nearby could be an issue for users of the storage facility. Check for the presence and state of any asbestos to see if action needs to be taken.

If the storage building has been used as security for borrowing, the lender's consent to the venture will be needed.

If the farm is subject to clawback (sale conditions which arrange for a proportion of the uplift in value caused by a non-agricultural use, or grant of planning permission for that use, being passed back to a previous owner) this may be triggered by the change of use.

Tenant farmers thinking of self-storage will almost certainly need the consent of their landlord, usually through a licence to sublet.

If the lease is a sub-lease, the landlord may ask for a share of the storage income.

Such a lease/sublease should ensure the correct procedure is followed to "contract out" of the Landlord and Tenant Act 1954, otherwise they may unwittingly grant the occupier of the unit the right to renew the tenancy at the end of the agreed term, making it much more difficult to get rid of them.

Diversification income can jeopardise tenancy succession on a traditional tenancy. This is a complex area and needs expert advice at the outset.

Check whether the farm tenancy contains any restrictive covenants – for example, it is not unusual to see "agricultural and equestrian use" only conditions and this may preclude diversification, at least without consent.

If works are needed to convert a tenanted building, a licence for those works may be needed and the landlord may require reinstatement at the end of the tenancy.

Sian Edmunds, partner in law firm Burges Salmon

## Insurance considerations

Any farmer diversifying must inform their insurer of the new venture and review cover.

Farm policies cover only for the business of farming, so any non-agricultural venture can leave a business very exposed.

For a self-storage business, public liability cover needs to be reviewed because of the risk posed by the new activity and the increased traffic and pedestrian movement it will bring. Trips, slips and falls are common claim areas.

Cover levels in this area should take account of changes in the Ogden rate (a recent review of the sums awarded for injury) and increases in potential compensation payments for serious injuries.

Farm policies often have standard £10m limits each for public and product liability, but some insurers are advising these are doubled following the recent review.

It should be a condition of the storage agreement that customers are responsible for insuring their own stored property.

Charles Foster, chief executive, insurance broker Lycetts

### Tips for offering storage

Research your market carefully

Visit the competition – what do they offer, what do they charge?

Know your local population – what will people want/expect?

Make customers feel comfortable and confident about the place, don't hurry them

Understand that people needing storage are often at a difficult point in their lives, stressed by a house move, possibly downsizing, grieving or going through some other family trauma, such as divorce

The ideal site is fairly close to a large population centre, has good road frontage, good access and, ideally, can be seen from the road

Don't take your eye off the ball, keep standards up, the business will not run itself

A good tight contract is essential, it must not be over-complicated but should include a customer declaration that they are not bringing anything illegal or dangerous onto the site

Have a secure payment method and try to avoid cash

### Case study

Martin Bazeley started his self-storage business in 2003 on the farm he rents from the Southwick Estate near Fareham in Hampshire.

This is his second major diversification, alongside a successful brewery business, Suthwyk Ales, also run from Offwell Farm.

### Farm facts

350ha tenanted farm

Mainly combinable crops

230-cow dairy herd

Diversified into container self-storage storage and ales brewed using the farm's own malting barley and hops

Storage capacity 14,000 sq ft in 140 units, all indoors, all ground level

Unit sizes from 40 sq ft to 320sq ft, all containers, some subdivided to make smaller stores

Development of the storage business followed the merger of the farm's two dairy herds, which left under-utilised buildings. As machinery grew in size, more 1960s and 1970s buildings became less suitable for their original use.

Unlike many container-based storage sites, all of the Barn Store units are indoors, in squeaky clean and well-lit buildings in which the farm's landlord has invested to convert and upgrade them.

The business takes about £140,000 a year in storage rental fees and is profitable, with a percentage of the rental income going to the landlord.

The storage buildings have been taken out of the farm tenancy, leading to a slight drop in the farm rent.

Mr Bazeley was clear from the start that he wanted this to be a top-end venture, which looked after and understood its customers, who can access stores at any time using a personal electronic fob.

Cleanliness and security are high priority, including alarms and constant CCTV monitoring.

As a result, prices are at the higher end of the range with a 40sq ft space costing £90 a month and the 160 sq ft units £290 a month.

This is more than double the rate of many outside units but still well below the purpose-built self-storage units seen on industrial estates.

“Although we’re close to a big population centre (Portsmouth), relatively little of our trade comes from the city. People will drive a considerable distance for the right storage.

“The business is a good fit with farming, as long as you don’t mind the public and can be flexible,” says Mr Bazeley.

“After office hours the business telephone numbers are diverted to our private numbers.”

The storage and farm businesses are one, sharing a VAT number, but are costed separately. Payment is by direct debit and, unlike some storage sites, charges are clearly shown on the website.

The most challenging aspect of starting the storage business was that it was a leap into the unknown in terms of customer service and marketing, says Mr Bazeley.

“You need to own what you are offering and understand your customer. The first time someone comes to look at the storage, you might need to spend 20 to 30 minutes showing them around and talking with them so that they feel comfortable, that’s all part of it.”

The success of his own Barn Store business has prompted Mr Bazeley to diversify in a very unusual way, franchising the Barn Store model to 12 other farms as far north as Staffordshire, west to Herefordshire, south-west to Somerset and eastwards to Kent. More new stores are to open soon.

The brand relies on the same high level of service and storage at all locations, where the owners also all live on site.

Mr Bazeley’s sister Jane works full-time for the storage business, while his daughters Emma and Naomi work part-time for Barn Store and Suthwyk Ales.

JOURNAL : Farmers Weekly

Tractor sales eased off over the harvest period, ending a run of four months of double-digit growth compared with 2017 sales levels.

Tractor registration figures published by the Agricultural Engineers Association (AEA), the trade body representing tractor and machinery manufacturers, show sales of new tractors larger than 50hp in August were nearly 2% lower than the previous year at 862 units.

However, total sales during the first eight months of 2018 remain 7.7% ahead of last year’s levels at 8,738 units.

See also: Fourth month of double-digit growth in tractor sales

AEA agricultural economist Stephen Howarth said new tractor registrations had taken “a breather” during August.

“It remains to be seen whether this is a short-term blip or represents the start of a reversal of fortunes, after the robust growth seen in the first seven months of the year.”

Mr Howarth said the pressures of this summer’s drought conditions may have been a contributory factor in sales falling back.

## En route to World Routes

Although many of the tractors registered in August would have been ordered during May - before the full impact of the hot and dry conditions had been felt - crops were starting to show signs of drought stress at that point.

"Or it may just be a case that we've had three or four very strong months and the purchasing for this year has happened.

"August is also a busy month for farmers and hence a relatively low month [for sales] anyway.

"There is no particular sign that for other types of farm machinery there has been a slow down during August," he added.

The biggest month for tractor purchases this year was March, when dealers sold 1,650 machines.

But the month with the strongest growth in sales was July, when farmers and contractors bought 1,347 units, compared with 1,091 in July 2017 and 942 in July 2016.

JOURNAL : Farmers Weekly

British growers will be allowed to recruit non-EU migrant workers for temporary jobs on UK farms after Brexit under a pilot scheme announced by the government.

The two-year pilot allowing 2,500 migrant workers to come to the UK for up to six months was announced by Defra and the Home Office on Thursday (6 September).

See also: 10-point plan for attracting the best farm workers

The government said the scheme would alleviate seasonal labour shortages during peak production periods for fruit and vegetable farmers.

The NFU – which has long warned of labour shortages – said there was “work to be done now to examine the detail” and develop the scheme.

Soft fruit production in the UK has grown by 130% in the past 20 years.

Technology

To ensure this growth continues, the government said farmers must also look at ways technology can reduce demands for physical labour.

The pilot scheme would support farmers in the short term during peak production periods because automated harvesting solutions were not universally available.

The time-limited pilot would also explore how to keep British horticulture competitive, as almost all other OECD countries sourced seasonal workers to pick fruit and vegetables.

Home secretary Sajid Javid said: “British farmers are vital to the UK’s economy – and the government will look to support them in any way we can.

“This pilot will ensure farmers have access to the seasonal labour they need to remain productive and profitable during busy times of the year.”

'Sustainable immigration'

“I am committed to having an immigration system that reduces migration to sustainable levels, supports all industry and ensures we welcome those who benefit Britain.”

The scheme will be run by two operators – to be announced in due course – that will oversee the placement of the workers.

## En route to World Routes

They will ensure suitable workers are selected for the pilot, reach their place of employment, and leave the UK at the end of their visa.

Return rates will be monitored throughout the duration of the scheme, with provisions to close the route if the government deems that it presents a threat to immigration control.

To be eligible for the scheme, migrant workers must be aged at least 18 years on the date of application and be from outside the European Union.

The pilot will commence in the spring of 2019, run until the end of December 2020 and will be monitored closely by the Home Office and Defra.

## Powerful arguments

Defra secretary Michael Gove said: "We have listened to the powerful arguments from farmers about the need for seasonal labour to keep the horticulture industry productive and profitable.

"From lettuce in East Anglia to strawberries in Scotland, we want to make sure farmers can continue to grow, sell and export more great British food."

Mr Gove said the government would review the pilot scheme's results as it looked at how best to support the longer-term needs of industry outside the EU.

Scheme operators will be licensed by the Gangmasters and Labour Abuse Authority to ensure migrant workers are protected against modern slavery and other labour abuses.

It will ensure all workers are placed with farms that adhere to all relevant legislation, including paying the national minimum wage.

Farmers will also be vetted to ensure living and working conditions are of a suitable quality.

## 'Step in right direction'

NFU president Minette Batters described the new pilot scheme as "a big step in the right direction".

"We have been telling government all along that we have strong evidence about the need for such a scheme, and it seems our lobbying has paid off," she said.

Ms Batters described the 2,500 places that will be offered in the pilot scheme as "meaningful".

"Had it just been a few hundred, or had the scheme been regionalised, we would have been disappointed," she said. "But this pilot is going to be broad and accessible. We appreciate the leadership Defra secretary Michael Gove and home secretary Sajid Javid have shown on this."

## JOURNAL : Farmers Weekly

Northern arable farmers have lost a key customer for feed wheat after Vivergo Fuels announced it was ceasing production of bioethanol for good at the end of the month.

The move comes just four months since the 11-year-old plant reopened after a prolonged winter closure on the back of weak ethanol prices and a lack of direction on government energy policy.

UK producers grow around 15m tonnes of wheat on average and Hull-based Vivergo purchased 1.1m tonnes a year from 900 farms across east and north Yorkshire and northern Lincolnshire.

See also: Hull bioethanol plant reopens after four-month shutdown



## En route to World Routes

The high domestic and international price of wheat will have been a further blow to the company, with global droughts and weak sterling meaning little prospect of the company importing cheaper grain from overseas.

The plant's shutdown will also mean a reduced supply of valuable dried distillers grains and other co-products for the livestock sector.

Nearby rival bioethanol company Ensus has the capacity to switch to alternative feed sources but Vivergo does not.

Mark Chesworth, managing director, Vivergo Fuels, commented:

"I am extremely disappointed at having to announce the proposed cessation of production as of 30 September 2018 at the Vivergo Fuels plant.

We have created a highly skilled and world-class business that had the opportunity to be part of a British sustainable biofuels industry. But sadly, the government's lack of pace over the past decade to introduce E10 has further undermined our ability to operate."

JOURNAL : Farmers Weekly

The Welsh government has taken an unprecedented step by writing to every farmer in Wales to defend its post-Brexit payment reforms.

It comes after a summer campaign by the Farmers' Union of Wales (FUW) urging its members to reject the proposals and demand the retention of the Basic Payments Scheme (BPS).

See also: Welsh farmers face end to direct payments by 2025

The union suggests that ending BPS risks "financial hardships and the loss of farms and rural businesses".

But in direct reaction, Wales' rural affairs secretary, Lesley Griffiths, has written an open letter to farmers setting out why she believes maintaining the status quo after the UK leaves the European Union would not work for Wales.

Farmers will today (Friday, 7 September) also receive a factsheet in which the government seeks to explode what it labels as "myths" being perpetuated about its reform proposals.

It is thought to be the first time the government has intervened part-way through any consultation.

A two tier-system

The government believes the industry in Wales needs to respond to the challenge posed by Brexit by improving productivity, reducing costs and diversifying.

Its current consultation, set out in its Brexit and Our Land document, proposes a two-tier system:

An Economic Resilience Scheme, with grants to improve farm efficiencies

A Public Goods Scheme, rewarding initiatives that improve water quality, reduce flood risk and improve habitat

Misleading

Ms Griffiths described the FUW campaign as "misleading" and argued that keeping the current system would leave Welsh farmers worse off.

Brexit means that the government must do things differently, the minister insisted, and that included abolishing direct subsidies from 2025, while focusing more on efficiency improvements.

But the FUW has reacted angrily to the letter and the accusations that it has been misleading farmers.

"I find it utterly bizarre that the government is singling out a single organisation because we are saying something that it does not agree with during the course of an open consultation," said FUW policy director Nick Fenwick.

"It is a bit like Donald Trump screaming 'fake news' whenever anybody says something he disagrees with. This amounts to an appalling interference during a consultation process."

#### New policy

The FUW campaign maintains it is foolish to move forward with a new policy until there is greater clarity on what the economic landscape will look like post Brexit and until there has been a detailed assessment.

It is also demanding a retention of direct payments, at least in the medium term, to enable Welsh farmers to compete with their counterparts in the EU, who will continue receiving such support from Brussels.

But according to Ms Griffiths "there is no debate on whether we should support farmers".

"We will continue to protect the funding. But we need to provide support in a different way to keep farmers on the land," she said.

"Business as usual" was not an option, she added. "We need farmers to engage properly with us to help make this work, so the recent misleading FUW campaign is not helpful."

The FUW said it was writing to Ms Griffiths to demand greater clarity on exactly where she felt it was being misleading.

#### Welsh government's Brexit reform "myth busters"

Myth: There will be an uneven playing field with our nearest competitors.

Fact: Maintaining the Basic Payment Scheme does not help us compete because it does nothing to improve farm performance. There is nothing in the system to reward farmers for performance or outcomes. Payments are devoid of incentives.

Myth: Farmers cannot make a living from public goods.

Fact: The Public Goods Scheme will go beyond "income foregone and costs incurred" and pay a meaningful income stream. For some, public goods payments will form a large proportion of future income. Every farm has public goods potential.

Myth: The Public Goods Scheme will not pay for public goods that already exist on farms.

Fact: We will pay for the ongoing management of existing public goods – for example, we will pay for the active management of an existing native woodland or habitat.

Myth: The Welsh government wants farmers to produce public goods, not food.

Fact: We need to increase farming productivity – in other words, increase the margin a farmer makes per unit of production. Investment, not income support, is the only way we can deliver a significant increase in productivity.

#### JOURNAL : Farmers Weekly

Farming to improve soil health, maximise production from grass and be self-sufficient is the aim of dairy farmer Richard Park of Low Sizergh Farm in Kendal, Cumbria.

His ambition is to manage the farm holistically, which incorporates financial planning, ecological monitoring and a regenerative grazing system into a decision-making framework.

## En route to World Routes

Although he is only at the start of his journey, small changes to the farming system are already reaping some benefits.

See also: How mob grazing can be used to improve soil health

Farm facts

160 cross-bred cows plus followers (Holstein, Friesian, Scandinavian Red and Montbeliarde

150 sheep

Second year of organic conversion

Autumn block calving on a 12-week block

National Trust tenant farmers

121ha split into one third cow grazing, one third silage ground and one third youngstock/sheep grazing

Currently yielding 6,500-7,000 litres on 1.5t concentrates due to forage shortage over winter

Slurry spread with trailing shoe

Farm shop sells eggs from 600 free-range hens

What is holistic planned grazing?

Mr Park first heard about holistic management when he attended a course run by 3LM on the subject.

It is an idea that was developed by Zimbabwe environmentalist Allan Savory in the 1960s after studying the reasons for desertification in Africa.

He concluded if animals were managed in a way that simulated the natural behaviour of herds and wildlife, then habitats, water management and the condition of the land improved.

The concept is now practised globally. Holistic planned grazing considers the time that a plant is exposed to a grazing animal so that the recovery of the plant is planned.

The planned moves are usually shorter and faster during the fast plant growth period and slower during the slow growth and non-growing seasons. This is because the timing of the moves is driven by plant recovery.

It also ensures manure is spread more evenly and organic matter is incorporated into the soil by the trampling of longer grasses into the ground.

The longer grass also aids ground cover and, with it having an extensive root mat, the water infiltrates better, reduces flooding, doesn't burn up as quick in drought conditions, and helps restore depleted aquifers.

It is different from mob and rotational grazing because it gives grass a longer recovery period. Mr Park says mob and rotation grazing systems don't take into account the time needed for certain species of grass to fully regenerate, wildlife habitats and the water, mineral and energy cycles.

Why holistic planned grazing?

Mr Park felt holistic management suited his system as he has crossbred cows, is in organic conversion (converted by 2019) and has a limited land area as a National Trust tenant. He has also been rotational grazing for eight years, so a paddock system was already in place.

His ultimate aim is to position the farm in a place that is as removed from external influences as possible.

## En route to World Routes

Mr Park says: "There's a lot of change going on with Brexit and milk prices so I assessed the business and looked at our strengths. I decided to focus on producing as much as we can off the land we've got, but in a way that improved the health of the soils.

"One of the criticisms of organic farming is that it's not productive enough, but my aim is to be as productive as a conventional system, if not better," he says.

## Putting a holistic plan together

After attending the course, the first thing Mr Park had to do was assess the land. During this he looked at ecosystem processes, such as the amount of decaying matter; percentage of bare soil; capping – whereby bare soil has been sealed by water; different species of grass; insect life; mineral flow and energy flow – for example, the amount of canopy/leaf area.

Although Mr Park felt he had a lot of technical experience, when he assessed the land he was surprised by some of the things he found.

"I was totally unaware of why ponding of water occurred in the middle of some established grassland, for example," he says. "By assessing the land, I found out this was happening because of soil erosion. The fine soil was running down and sealing the soil surface, resulting in pools of water."

Mr Park also discovered why docks were a problem in some areas.

"The thing with holistic management is that with every decision you make you always have to ask whether your decision is addressing the root cause of the problem.

Before organic conversion we would just spray the docks; however, this wasn't addressing the root cause. When we assessed where the docks were we found evidence of compaction and also bare soil.

"Docks are nature's way of trying to cover up bare soil. So, if we manage bare soils and compaction and increase the diversity of the plants we grow, then we are less likely to get domination by docks," he explains.

## Changes and benefits

Although much of what the Park family hope to do is based on theory, they are already seeing some benefits from the changes they've made on the farm.

## Planned holistic management changes at Low Sizergh Farm

## Aim

## Position before change

## What is the change?

## Reason for change

## Current position/benefit post-change

## Add more diversity to the silage and grazing ground

## Mostly monocultures of ryegrass with some clover

Direct drill extra grass species such as Timothy and Fescues, more red and white clover, chicory and plantain as well as other herbs

## En route to World Routes

Nature needs diversity. Different species will offer better ground cover and aid community dynamics such as insect life. Different leaf surface areas will also help harvest energy from the sun.

Plants with long tap roots will also help reduce compaction and survive better in dryer conditions.

Due to the weather, they haven't direct drilled yet. The hope is to complete it this year.

Increase the grazing height at which stock enter

Most land was grazed at heights of 2,800kg/dm/ha down to 1,800kg/dm/ha

Cows entering grazing at 4,500-5,000kg/dm/ha and allowing roughly 30% of the grass to be trampled back into the ground (depending on individual paddock and the age of stock). Fence to be moved twice a day.

Going in at higher grass lengths allows the different species of grass to fully recover. Trampled grass provides coverage and reduces bare soil. Also, the grass is broken down and provides nutrients for the soil.

Have tried it this year with the youngstock grazing and found youngstock still achieving target growth rates of 0.8kg a day. In the hot summer, this land hasn't burnt up to the extent other fields have.

To produce rich fungal soils

The ryegrass dominated swards are bacteria microbe dominant

To support more diversity more fungi will be added to kickstart their growth. The fungi will be added through a sprayer.

In order to increase diversity, you need a balance of bacteria and fungi microbes

Not completed yet

Introduce larger rotations

Typically, a 21-day rotation – 39ha grazing platform with 160 cows

Increase up to 60-day rotation in the growing season

To allow grass to recover fully

Have already introduced to youngstock grazing area

Introduced hens into the grazing rotation

Their 600 free-range hens were housed on a dedicated range area

Mr Park has constructed a mobile cabin, which allows the hens to follow the cows after grazing. Hens are shut into the cabin at night and then released the following day when they are moved into the next paddock.

Hens are adding nutrients into the soil. They also scratch the ground and help break up the cowpats and spread them. Also adds variety into chicken diet as they pick larvae out from the cow dung, for example.

Currently ongoing. Eggs appear to have a better taste as the hens' diet is more varied.

Mr Park says since entering organic conversion he has seen grass yields decrease as a result of not using bagged fertiliser. But he hopes this holistic approach to grazing will help combat this.

"We'd normally be averaging 10-11t/dm/ha, but last year this dropped to 8t/dm/ha/year," he says.

"In four to five years' time when we have implemented the holistic plan, we'd hope to be back up at 10-11t.

## En route to World Routes

“Eventually, we would also like to be a 100% forage-fed herd.”

## Key principles of holistic planned grazing

Run as few herds as possible. One herd provides the best graze-to-plant recovery ratio (shorter grazing periods and longer recovery periods).

Animals that remain bunched in a single herd are more effective at chipping the soil surface with their hooves and trampling down plant material to cover the soil so that air and water enter and new plants can grow.

Scattered animals have less impact on the soil surface with their hooves and will create less litter to cover the soil surface. If animals – bunched or scattered – are left in any one place too long, or if returned to it too soon, they will overgraze plants and compact and pulverize soils.

## Plan plant recovery times before you plan grazing times

Overgrazing is linked to the time animals are present, rather than how many animals there are

Base stocking rates on the volume of forage available and how long it must last. Align it with carrying capacity – the number of animals the land can carry based on the forage available over the non-growing season plus a month or more of drought reserve.

Plan on a grazing chart. This provides a clear picture of where livestock needs to be and when, and determines how managers plan their moves backwards or forwards.

Create one plan for the growing season before main growth starts. The aim of this plan is to grow the maximum amount of forage possible during the growing season so that animals have enough to eat throughout the year and plants are not overgrazed.

Create one plan for the non-growing season once grasses stop growing. The aim of this plan is to prepare the soil and plants for the coming growing season and to ration out the remaining forage over the months.

## Monitor the plan

Source: Savory

## JOURNAL : Farmers Weekly

Farmers in England can now sign up to the Woodland Grant Creation Scheme (WGCS) all-year round.

The move is designed to attract more applications and ties in with the government's plans to increase the amount of woodland cover.

Its goals include planting 11m trees by 2020 and having 12% woodland cover by 2060.

See also: NSA and Woodland Trust unite to give tree planting advice to farmers

The WGCS is a capital grant scheme that falls under the umbrella of Countryside Stewardship and provides payments of up to £6,800/ha to establish new woodland.

The government hopes that removing the old time-limited application window will encourage more projects to come forward, as applicants will be able to prepare them at their own convenience.

Under the scheme, applicants can apply for one-off payments to fund trees, associated protection items, including fencing and spiral guards, and support towards any infrastructure needed to help the establishment of new woodland.

## Maintenance money

Once the woodland has been planted, farmers can apply for a separate multi-year grant worth £200/ha for a 10-year period to maintain it.

This support is called the Woodland Creation Maintenance Grant and is part of the Countryside Stewardship Higher Tier scheme.

Who can apply?

The minimum project size is generally 3ha, with a minimum individual block size of 0.5ha.

However, smaller projects will be considered if the planting is designed to improve water quality and help with flood prevention.

The scheme is competitive so all applications will be scored to decide whether it should get the go-ahead.

The highest scores will be given to applications that cover a large geographical area or those that have the greatest positive impact on biodiversity, water quality, flood prevention and climate change.

The majority of any new woodland planted needs to be native species.

‘Generous support’

Richard Greenhous, Forestry Commission director of forest services, said: “By making it easier to apply for generous grant support we are ensuring that we deliver on the government’s and the forestry sector’s ambitions to plant millions more trees across the country.

“We look forward to hearing from applicants who want to reap the economic, environmental and social benefits of sustainable woodland creation.”

JOURNAL : Farmers Weekly

Red Tractor is launching its first ever TV advert this week – appearing during a slot on ITV’s Emmerdale on Wednesday (12 September) – in an attempt to improve consumer understanding of what the assurance marque actually stands for.

Research has already shown good awareness (69%) of the Red Tractor logo, and the fact that many actively look for the marque, said Red Tractor Assurance chief executive Jim Moseley.

See also: Watchdog rejects Red Tractor 2013 ad complaint

“We also know consumers are twice as likely to look for Red Tractor products if they know more about what it stands for, which is why it is vital we invest in large-scale communications to tell them what we do.”

The £1.5m campaign aims to explain to consumers the effort that goes into ensuring the food they buy is safe, traceable and produced responsibly.

The animated TV ads are set to run for eight weeks, with a social media campaign going for a full year.

The scheme has been funded by the Red Tractor licensees, rather than farmers, following an increase in the license fees for packers, processors and others that use the logo.

“The value is at that end, for the people that are marketing the logo,” said Mr Moseley.

NFU president Minette Batters said that, with Brexit, there had never been a more important time to start promoting British food and encouraging shoppers to buy high-quality British produce.

“Brexit is a game changer for British agriculture and ‘Brand Britain’ must be based on the integrity of robust food assurance,” she said.

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## JOURNAL : Farmers Weekly

A student bursary worth £27,000 is on offer to help bring fresh talent from outside the industry into the agricultural sector.

The John Innes Foundation (JIF) offers a bursary to one undergraduate each year and is aimed at candidates who are not from a farming background and also from families that are financially disadvantaged.

The idea is to attract new entrants into the sector who are looking for a career in primary crop production or farm management, but who need help and support to enable them to do so.

See also: Nine ways to fund agricultural career development

In addition to having their fees paid, successful candidates are mentored periodically throughout their degree by Velcourt's technical director, Keith Norman, a past winner of Farmers Weekly's Farm Adviser of the Year award.

They are also offered the opportunity to gain valuable work experience by working for Velcourt during summer holidays and may be considered for the Velcourt management training scheme following graduation.

### Scheme details

The John Innes Foundation farming bursary is available to candidates who meet the eligibility criteria who are enrolled on a full-time, three year BSc (Hons) degree course in agriculture or crop production.

The student must be from a non-farming background and intend work in primary crop production in the UK, as opposed to an academic, research or overseas career.

The money, which covers the annual cost of the course fee, is paid at the beginning of each term and is discretionary on the student's progress and attendance record.

Each student's progress will be monitored at the end of each academic year and they will be expected to make a short presentation of their progress to the JIF trustees.

After graduation, the student will be asked to make an annual report to the trustees on their career progress.

The bursary is promoted to nine universities which offer crop-based degree courses: Newcastle, Harper Adams, RAU, Writtle, Risholme, Reading, Askham Bryan, Bishop Burton and Easton & Otley.

The closing date for this year's applications is 31 October, 2018.

### Opportunity for Holstein Young Breeder

Holstein UK is offering a member of Holstein Young Breeders (HYB) the opportunity to go on an all-expenses-paid trip to Australia for a month in January 2019.

The winner of the award will get the opportunity to visit a wide range of Australian dairy farms, take part in International Dairy Week and see some of the country's top tourist attractions.

It is part of an exchange programme which will focus on learning, practical on-farm experience, skills development, networking, and gaining first-hand knowledge of how dairy farming compares in Australia and the UK.



The winner will be required to keep a blog detailing their time in Australia and write an article for the Holstein UK Journal on their return.

Details of the scheme can be found on the Holstein UK website.

JOURNAL : Farmers Weekly

Early generation Land Rover Discoverys have been a farming favourite for two decades but many have been struck down with a vicious case of tinworm that, until now, has left them destined for the scrap heap.

However, a gang of upcyclers in the Isle of Wight have come up with a new cab design that bolts in place of the old body while making use of Land Rover's decent engine, gearbox and chassis.

The forward control cab sits on top of the engine and leaves a big load bed out back capable of carrying up to 1,200kg.

See also: Land Rover Defender gets £80,000 Twisted treatment

This solution differs from other companies vying to sell alternative farm runabouts, such as far smaller UTVs, converted Jimnys with limited carrying and towing capacities, the two-wheel-drive OX flat-backed truck and Projekt Grenadier (a kind of Defender replacement that remains a long way from production).

The other perk of Rotodama's kit is that it retains all of the Discovery's stand-out features, including a 3.5t towing capacity, coil springs all round and the pretty solid combination of 2.5-litre 300Tdi engine and five-speed auto gearbox.

Land Rover Discovery 300Tdi spec

Engine: 2.5-litre four-cyl Tdi

Power: 111hp@4,000rpm

Torque: 265Nm@1,800rpm

Transmission: Five-speed

0-62mph: 18.5secs

Top speed: 91mph

Economy: 32mpg

Towing capacity: 3,500kg

Weight: 1,985kg

Cab frame

The cab skeleton is made from a motorsport-spec tubular frame that is tough enough to handle the knocks and bashes of off-highway life.

The boxy shape keeps construction simple, while double posts on the front and rear corners and diagonally-set bracing across the roof stiffen it enough to handle a rollover.

Some of the panels are currently made of aluminium, but on full production models these will be replaced with GRP fibreglass, which is both tough and easy to replace.

In a nutshell

## En route to World Routes

Forward control cab sits on original body mounts

First version will be a single cab with rear deck, but double cab and people carrier models will come later

Asking price for the cab is £11,250 (ex VAT)

Customers can provide their own donor vehicle or get Rotodama to source one

The panels themselves self-retain in the frame, so by running cheese wire through the sealant they can be popped out and replaced pretty easily if broken.

They're also light, which helps the cab stay well under the 1,250kg front axle weight limit on Series 1 Discos.

Other external tweaks for full production models include a front bumper that will improve impact absorption (there are currently no crumple zones) and some steps, as the climb into the cab is almost a metre.

On the inside, buyers get the essentials: seats, steering wheel, doors and windows, and a three-speed fan for the footwells and windscreen.

There are currently no dials, but the firm says it will probably reuse Land Rover's instrument binnacle.

Other internal tweaks include switching all the panels to aluminium, extending legroom and adding window locks.

#### Fitting

The fitting process is pretty simple, provided the 12 mounting bolts for the old body come undone cleanly and angle grinder work is avoided. In all, it should take Rotodama less than two hours to remove the old shell.

Hacking the body off provides the perfect opportunity to give the rest of the vehicle a health check. In particular, it's worth having a quick gander at a couple of the chassis' weak points around the rear tubular cross member. If there are signs of rust then it's well worth getting them patched up with 2mm plate.

In fact, the company suggests shot-blasting and repainting the chassis before lifting on the new cab, which is simply held by four M10 bolts that slot down through the original mounts.

#### Does it alter the Discovery?

The beauty of the system is that it doesn't alter any aspect of the engine, transmission or chassis, so it sits within the same footprint – the only alteration is some mildly stiffer suspension springs to handle the extra front-end weight.

Keeping the bare bones of the vehicle intact also avoids the rigmarole of changing the Individual Vehicle Approval with the DVLA – as far as they're concerned, it's still the same vehicle (bar the colour).

The changes see 950kg of bodywork removed and replaced with just 500kg in new cab and rear deck. That means almost 500kg has been shaved off the Discovery's overall weight and leaves 1,200kg of payload capacity in the back, which comfortably competes with the biggest pickups on the market.

The company isn't building rear-deck add-ons itself – instead it has recruited Solent Body Builders in Fareham, which will manufacture all sorts of kit, including shoot trailers with minibus-style seating, campervan units or tipping bodies.

#### How does it handle?

Because the running gear remains the same, top speed is well over 80mph, it can still tow 3.5t and has decent ground clearance too. Coil springs are also far more forgiving than the leaf setups on most pickups when blatting along rutted farm tracks.

## En route to World Routes

Losing most of the bodywork causes the centre of gravity to drop by about 60cm, which makes it more balanced over rough ground, too.

The other benefit from the changes is the forward control design, which gives the driver an up-close view of the front corners – particularly handy for anyone that does forestry work.

On the inside, it's a pretty crude setup at the minute, although the pre-production model will be tidied up and fine-tuned with a few extra mod cons.

There's currently little in the way of sound deadening, so it's quite noisy, but the combination of aluminium interior panels and foam sealant will be good at stifling the sound from the engine, the company says.

Surprisingly, it doesn't get overly hot in the cab, despite the engine being between the two seats. Legroom is reasonable too – and will be improved by 40mm on later versions – and there's more space between steering wheel and door than in the Defender.

Consumption stats are pretty similar to the original vehicle – expect to get about 22mpg from the auto or more like 30mpg in the manual.

How much does it cost?

Pricing is still being ironed out and is likely to change as production gets ramped up.

As a guide, Rotodama expects to charge £11,250 (ex VAT) for the cab, including the steering column, belts, seats and gear shift assembly.

Surprisingly, 90% of enquiries have been for cab kits, but the company will offer to remanufacture vehicles. Going down this route is likely to cost closer to £30,000 as it will include a revamp of the running gear, so it looks like a cheaper bet to source the vehicle yourself.

Once you own the cab, there's also the option of swapping it to another vehicle further down the line.

Why a Series 1 Disco?

There are around 30,000 Series 1 300Tdi Discoverys still on the road and their tendency to suffer from body rot rather than mechanical gremlins makes them the ideal donor vehicle.

Most eventually fail MOT tests for the same reasons – particularly rusty boot floors and inner wheel arches – but they all run on what is essentially a solidly-made Range Rover chassis.

The cab will also fit Series 2 Td5 Discovery models, of which there are another 30,000 on the road. However, it's not so much body rot that is the problem but rusty chassis.

Replacement galvanised chassis are available for about £2,000, so they can still be salvaged, but generally they were built with thinner, lower-grade metal and weren't protected by paint in the right places.

Land Rover Defenders have different chassis mounts but the overall width is the same, so conversions shouldn't be too difficult.

The sticking point is the price – hard-worked 110 High Capacity models from the early 2000s are now fetching £10,000-£12,000, which makes the whole job very expensive.

Of course, the advantage of using Land Rover vehicles as the base is the abundance of spare parts, but any ladder chassis vehicle can be adapted to forward control and the Toyota Hilux is another likely candidate for the future.

How did it come about?

## En route to World Routes

A team of four friends have been developing the front cab for the past three years, with a mix of skills in fabricating, engineering and marketing.

Keen upcyclers, they noticed the number of Discoverys drifting towards redundancy due to their tendency to suffer from bodywork rust.

They came up with a basic plan for a forward control cab and knocked together a rudimentary concept within three months using human dimensions to get the pedal angles correct in relation to the seat and wheel.

The original idea was then developed into a proper prototype that is still running now.

## JOURNAL : Farmers Weekly

Growing crops for added value premiums allows Northampton farmer Rick Davies to offset the extra income against the effects of cropping highly variable soils.

With 404ha of combinable crops being grown across a range of soil types, yields can be limited on the lighter, drought-prone soils in dry years, while flooding is also a threat to output on around 80-100ha of land that adjoins the River Ouse.

Soil variability is part of the planning process at the new Northamptonshire AHDB Monitor Farm.

See also: Big and small arable monitor farmers face the same challenges

On the flood plain land, silt over gravel and sandy gravel soils predominate, while other soil types like sandy clay loam, brash and clay loams are found across the two farm sites operated by MTH Davies from its Clifton Reynes base.

Given those constraints and recent unpredictable weather patterns, Mr Davies is clear about his cropping strategy. "We can't always get the highest yields here, so we need the premiums."

Farm facts: MTH Davies, Newton Lodge Farm

404ha

242ha milling wheat, 55ha oilseed rape, 64ha spring barley, 17ha grass, 26ha margins/mid tier

Five-year average yields: first wheat 10.30t/ha, second wheat 9.85t/ha, oilseed rape 3.69t/ha and spring barley 7.77t/ha

6,000t of grain storage plus continuous flow drier

Claydon 4.8m drill, often used in conjunction with a 3m Dyna-drive

Contract Avadex (tri-allyl) spreading

Red Poll cattle and box beef scheme

## Cropping strategy

As a result, his winter wheat is all in Group 1 milling varieties, his high-oleic, low-linolenic (Holl) oilseed rape is grown for the specialist oil market and his spring barley is on contract to Budweiser.

"It has worked well for us in most years," he says. "The only crop under review is the Holl oilseed rape – the premium dropped right back from £25/t to £8/t last year, making it borderline. The £90/ha cost of the seed makes it hardly worth doing if there's insufficient reward."

## En route to World Routes

Another consideration is that his oilseed rape yields have dropped in the past two years. "Whether that's due to the Holl varieties, or a combination of other factors, I'm not certain.

"To check, we have also got some conventional oilseed rape varieties, Campus and Elgar, growing alongside the Holl type V316OL, to see if they can do any better."

### Alternative choices

An alternative could be high-erucic acid (Hear) oilseed rape, with its £60/t premium, he says. "That figure includes the oil bonus. The seed cost is £70/ha, which is slightly better than Holl seed."

All of the winter wheat at Newton Lodge Farm is in Group 1 milling wheat varieties, which include Gallant, Crusoe, Skyfall and Zyatt. The farm has a good track record of hitting the full milling specification and supplies local firm Heygates.

"The variety mix works well," says Mr Davies. "The oldest variety, Gallant, is useful because its early maturing, so we get it cleared first at harvest."

On land which is blackgrass-free, he grows two wheat crops, followed by spring barley and then oilseed rape. Where blackgrass is a problem, a first wheat is followed by two successive crops of spring barley, followed by oilseed rape.

"It's not unknown for us to grow a third wheat," he says. "But we are looking at widening out the rotations if we can, perhaps bringing in a pulse crop. We're also going to try a cover crop between the two spring barleys this coming year."

### Spring barley experience

Explorer spring barley is grown on contract for Budweiser through Glencore and suits the farm well. As well as being very competitive against blackgrass, it has yielded as much as 9.8t/ha in the past.

"It tillers well, so with the right seed rate we find that it really helps with blackgrass. The ground is moved in the autumn, so that we can go straight in with our Claydon drill in the spring."

"This year, it went in a month too late. The upside of that is reduced expenditure on the crop, especially herbicides, but the delay is likely to have reduced yields. We'll see when the combine goes through."

### Diversification

Being a fourth-generation family farm has given Rick Davies and his father the time and energy to pursue other enterprises and make the most of diversification opportunities.

Time and money spent converting old pig buildings mean that 14 office lets and four light industrial units are an integral part of the business, with 52 container storage units being a more recent addition.

In addition, a box beef scheme makes best use of the farm's 25 Red Poll cattle, which are extensively grazed, while a contract Avadex (tri-allate) spreading operation has been set up by Mr Davies and covers the local area.

His brother George runs a separate turf business from Newton Lodge Farm, building it up over the past 18 years to include three depots, six lorries and 17 staff.

### JOURNAL : Farmers Weekly

An animal rights group has published the names, addresses and phone numbers of farmers signed up to the badger cull in the west of England.

## En route to World Routes

Stop The Cull has created a map showing the location of more than 100 farmers and posted it online, telling its supporters that “only direct action” can save badgers’ lives.

This includes:

Calling farmers directly

Playing the “Badger Badger Badger song” down the phone

Adding farmers’ details to call back request sites to generate masses of unwanted calls

Leaving fake answerphone messages farmers will have to respond to, for example “This is Mole Valley Farmers, we need to speak to you about your order”.

Stop The Cull says these tactics are designed to “sabotage” farmers’ time but not to be intimidating.

See also: Practical farm advice for dealing with activists

It is “perfectly legal” to ring once, the activists said, but warn against ringing multiple times as this could be construed as harassment.

Though keen to broadcast farmers’ contact details, the group advises its members to remain anonymous, by blocking their number, buying new pay-as-you-go phones or using online voice simulators.

The Badger Trust, another campaign group, has spoken out against the publication of farmers’ private details, expressing concern the tactic could lead to people being threatened.

Dominic Dyer, chief executive of the trust, said: “We fully understand the level of public anger over the cruel, hugely costly and ineffective badger cull policy, but nothing is to be gained by publishing details of those involved.

“We believe in peaceful opposition to the badger cull, acting within the law.”

#### Indefensible tactics

The NFU has called intimidating, bullying and harassing farming families and their children in this way “indefensible”.

An NFU spokesman said: “We continue to find it extraordinary that this group – made up of a small number of extreme animal rights activists – feels it is morally acceptable to carry out activities like this, which are specifically designed to scare, threaten and intimidate normal farming families.

“Badger culls are being carried out legally and lawfully in specific areas as part of government policy to control and eradicate this terrible disease, which saw more than 33,000 cattle slaughtered in England last year.

“Anyone who calls farmers and their families with the aim of causing them distress is committing a criminal offence.”

Defra has stated any criminality or intimidation by protestors is “unacceptable” and would be a matter for the police.

#### What to do if you receive a suspicious, threatening or malicious telephone call

Remain calm on the phone and try to collect as much useful information as possible, including their name and reason for call without giving away any of your details.

Follow the standard police reporting procedure (see below).

Never delete any voicemail messages and if possible record any phone calls.

If activity persists contact BT malicious calls bureau (0800 661 441) and follow their advice.

Standard police reporting procedure

Dial 101 and tell the operator you want to report a crime.

Give your location and postcode and describe the incident.

Gather as much evidence as possible, including descriptions of perpetrators and vehicle registrations. Only take photos and videos if it is safe to do so.

Keep a copy of your witness statement, crime number and photos of the activity or damage.

Source: NFU and Police UK

JOURNAL : Farmers Weekly

The dormancy of blackgrass seed is very low this summer, meaning control could potentially be easier to achieve. In years with low dormancy and high germination, more of the grassweed emerges and can be killed before drilling.

Some 31 blackgrass seed samples were tested by crop consultant Adas and those not affected by orange wheat blossom midge (OWBM) saw the highest germination and hence lowest dormancy level for 18 years.

Sarah Cook, author of the report and weed specialist at Adas, says the presence of OWBM had significantly reduced the germination of many blackgrass seeds.

This may mean that despite high blackgrass populations, OWBM may have killed a high proportion of seed and emergence may be lower as a result.

See also: One grower's plans for tackling blackgrass next season

But the seven samples out of the 31 without any OWBM showed the highest germination rate over the past 18 years of testing at 80%.

Dr Cook says the key factor affecting germination this year will be moisture availability, and gives her advice for this coming season:

What to do in a low-dormancy year

Freshly shed blackgrass seed will emerge rapidly where adequate moisture is present.

Leave stubbles uncultivated – this allows seed to be predated and to germinate. Cultivations will bury seed, removing it from predators and can induce seed into a deeper dormancy.

Use minimal or non-inversion tillage, keeping seed within the top 5cm, where it can germinate. Try to minimise bringing up old seed from previous years.

Delay drilling (no later than the end of October) to allow maximum weed emergence, as crop establishment will be compromised.

Spray off any blackgrass that emerge before drilling with the correct dose of glyphosate.

Apply a robust pre-emergence herbicide with a residual component within 24-48 hours of drilling.

Apply a robust post-emergence herbicide programme. Post-emergence sprays need to be timed after most blackgrass has emerged, applied at the correct growth stage and should also include a residual element.

JOURNAL : Farmers Weekly

## En route to World Routes

Whether you have a legal, tax, insurance, management or land issue, Farmers Weekly's Business Clinic experts can help. Here, Charles Skelton of Savills sets out what to consider when increasing borrowing to buy land

Q I am thinking of borrowing to buy some neighbouring land. I want to fully understand the impact on my business. What should I consider?

A See your business in the same way your bank manager would. How at risk is your present financial situation and what might it look like if you make the purchase?

Acquisition of major assets such as land and property that involve bank borrowing may put pressure on the balance sheet in terms of gearing ratios.

These compare medium and long-term liabilities with your net worth and are typically presented as a percentage gearing ratios will be one of several considerations by a bank before lending.

See also: Use share farming to meet greening requirements

The target ratio would be under 50%, however, it is accepted this figure will be distorted by the purchase of a significant asset with 100% borrowing but the bank will need to understand how the ratio will be brought back into a "normal" range.

Remember also net worth calculations rely on asset values which may not be current or accurate.

#### Cashflow perspective

Banks will also want to see a strong business case for the potential purchase and your plans make sense from a cashflow perspective.

It is important to include all expenditure during your proposed payback period, such as any other capital purchases. There is no point in replacing a bank loan with an increased unforeseen overdraft facility and no immediate plan to repay.

Appraise how your business would look without Rural Payment Agency income. Prepare a sound plan for repayments and understand the full demands of cash in the business (including private drawings and tax).

Identify and declare private drawings and income tax. Understand what depreciation means to the profit and loss account and how this translates to cashflow forecasting.

It is essential all cash income and expenditure is considered when appraising a large long-term capital purchase. Repayments due on asset finance and long-term bank loans and mortgages are calculated over a period of time.

Meanwhile your profit and loss account is affected by plant and machinery depreciation the moment the item arrives on the farm.

Depreciation is not a cash item but it is important to understand how your accountants calculates it.

Be realistic and include sensitivity analysis in your future gross margin calculations; for example, what would a 30% increase or decrease in the price of your sales or cost of your inputs do to your cashflow?

Consider also the ownership of the land – whose name will be on the title deeds? In general, it is best to avoid joint ownership but consider succession planning opportunities down the line.

Take advice to ensure you get things right first time and avoid expensive remedial action.

Do you have a question for the panel?



## En route to World Routes

Outline your legal, tax, finance, insurance or farm management question in no more than 350 words and Farmers Weekly will put it to a member of the panel. Please give as much information as possible.

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JOURNAL : Farmers Weekly

Whether you have a legal, tax, insurance, management or land issue, Farmers Weekly's Business Clinic experts can help. Here Peter Griffiths, tax director at accountant Hazlewoods, offers advice on how rollover relief is affected by inheritance of farming assets.

**Q** Having read about rollover relief from capital gains tax (CGT) in Farmers Weekly, we would like to know what happens when land bought with rollover relief is passed to someone after the original owner dies. Does this have to be repaid from the estate or can the relief be continued until the recipient sells?

**A** On an individual's death, all assets are uplifted to market value and no CGT is payable. Therefore, gains that have been rolled over into assets held at death do not become chargeable to tax, and the whole gain is "washed out".

Assets owned by the deceased may suffer inheritance tax (IHT), although if the relevant assets wholly qualify for an IHT relief such as agricultural property relief or business property relief, the assets can be passed to the inheriting individual with no tax liability arising.

See also: Tax considerations for farm cottages

Rollover relief from CGT is available for an individual when qualifying assets used in their trading business are sold, there is a capital gain and the proceeds are reinvested in other qualifying assets to be used by the individual in their trading business. This does not have to be the same business or even the same trade.

Relief is available to sole traders and partners in a partnership. Relief is also available to limited companies or where individuals own an asset personally that is used by a company they own.

The acquisition of the replacement asset must be within a period commencing one year before and ending three years after the disposal. HM Revenue and Customs may agree to extend the period, to allow relief on purchases up to two years before and six years after a disposal in certain situations. A claim has to be made for the relief.

For full relief, all the proceeds must be reinvested. Also, if the asset being sold has not always been used in a trading business, then relief is restricted on a pro-rata basis to the trading period.

#### Reinvestment

No rollover relief will be available until proceeds at least equal to the cost of the asset being sold are reinvested. For example, if an asset purchased for £400,000 is sold for £1m, no rollover relief will be available in respect of the £600,000 capital gain until replacement qualifying assets costing at least £400,000 have been acquired.

For farming businesses, relevant qualifying assets include land and buildings but not normally farmhouses occupied by anyone other than an employee.

Fixed plant and machinery, for example, an anaerobic digester or grain dryer, is also a qualifying asset, but only for a maximum of 10 years, when the gain becomes chargeable, if other qualifying assets have not been acquired in that period.

It is important to note that to extend the rollover relief period beyond 10 years, the replacement qualifying assets must be purchased before the 10 years have elapsed.

## En route to World Routes

It is worth remembering that provided the replacement asset is used in the trade immediately, even if the asset stops being used in the trade in the future, then there is no clawback of the rollover relief on purchase.

Many farming businesses are now structured to include a company alongside a partnership. Gains made by an individual on qualifying assets can be rolled into qualifying assets used in a different trading business they own.

However, gains on assets used in a sole trade or partnership will not qualify for the relief where the proceeds are used to acquire qualifying assets to be used by a limited company which the individual owns.

Where relief is claimed on gains on assets owned personally by an individual and used by a company, HMRC takes the view that relief is only available if the proceeds are reinvested in other assets used by the same company.

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JOURNAL : Farmers Weekly

Whether you have a legal, tax, insurance, management or land issue, Farmers Weekly's Business Clinic experts can help. Here, Robert James associate at Thrings offers advice on how to tackle a problem with expensive equipment not working as it should.

Q I run a 121ha (300-acre) and 180-cow dairy farm. With a view to expanding and increasing profits, I bought four milking robots in 2013 to replace my herringbone parlour.

I've had nothing but problems with them. They constantly breakdown, are wholly unreliable and profits have fallen. I cannot contemplate expanding the herd until the problems are resolved.

Plus, I've had to maintain my herringbone parlour as backup when the plan was to sell this and recoup some money. The whole episode has caused great distress to both myself and my family. What can I do about it legally?

A The good news is it looks like you have a claim for breach of contract. If you bought the robots from the manufacturer or an agent, I would expect they would have contracted on their set of standard terms and conditions which would set out some express terms. It is these that would need to be examined in the first place.

Regardless of these terms, the law implies certain terms into contracts such as these, primarily that the robots should be (a) of satisfactory quality and (b) fit for purpose.

This would be governed by the Sale of Goods Act 1979, as you purchased the robots back in 2013. It has since been replaced by the Consumer Rights Act 2015 which applies to all contracts after 1 October 2015.

See also: Danger of undocumented family loans

In any standard terms and conditions, I would expect to see certain exclusion or limitation of liability clauses. This is an attempt by the seller to restrict the category of claims that may be brought against it, or try to set up a financial cap on its liability for any claim.

If the standard terms and conditions are simply imposed on you, and these exclusions or limitation clauses were not adequately explained and highlighted to you, then there may be an argument they are not valid.

## En route to World Routes

Under the Unfair Contract Terms Act 1977, it would up to the seller to persuade the court the clauses are reasonable in the circumstances. On the facts of your case, this is not an easy task.

If it can be shown the breakdowns are caused by inherent defects with the robots and not by husbandry or other external factors then, on the face of it, you would have good prospects to show they are not fit for purpose and are not of satisfactory quality.

## Detailed record

To support any potential claim, it is important to keep a detailed record of the frequency of the breakdowns and any known cause. A positive expert report from a suitably qualified engineer would strengthen your position.

If you can successfully show the robots are defective, relief will come by way of damages. From what you have described, there are three broad heads of loss.

First, you need to be put in a situation where you have working robots. Usually, this involves the cost of repair, but if all repairing efforts to date have been to no avail you could certainly argue you should be awarded damages to enable you to go out and buy new robots.

Second is the question of any loss of profit from the drop in production. You will need to show these losses were foreseeable, for example, that they could reasonably be a contemplated result of having defective robots. Your accountant may be able to help you demonstrate and provide evidence of these losses.

Last, you mention distress. The law only allows damages for distress in contract claims in very limited circumstances, where the purpose of the contract was to provide peace of mind or relaxation. The current claim is unlikely to fall within that category.

A note of caution. Any court claim for a breach of contract should be started and issued with the court within six years from the breach, which could run from the date of purchase back in 2013 and may therefore mean that you do not have much time left to pursue the claim.

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## JOURNAL : Farmers Weekly

Agricultural contractors have renewed their calls for Defra to rethink the “farcical” August hedgecutting ban after a lean summer left many out of pocket.

Specialist hedgecutting contractors would normally follow the combine harvesters around and trim hedges on farms after harvest.

But Defra introduced new legislation in 2015 making it an offence to cut hedges on farmland between 1 March and 31 August. Any landowner caught trimming hedges during this period faces reductions to their single farm payment under cross-compliance rules.

See also: Handy guide to key cross compliance dates

## En route to World Routes

The department decided to extend the ban by one month to cover August as part of an EU directive to protect nesting birds. The extension is supported by the RSPB, which maintains some birds are still nesting in August and beyond.

But the ban has proved deeply unpopular with contractors and the NFU, which says the vast majority of birds have finished nesting by August, apart from wood pigeons.

'No grass to cut'

Grass and hedgecutting contractor Bob Rutt trims about 2,630ha in the Northamptonshire/Leicestershire/Rutland area.

Mr Rutt said the dry late spring and summer had stunted grass growth and there had been "no grass to cut for two-to-three months".

He added: "Farming is in the doldrums because of the cost of everything; the crop tonnage has been poor – oilseed rape and beans in particular – and input prices have been increasing.

"It's been a lean summer for us contractors too. August was so dry. It would have been an ideal time to get on the land – especially the heavy land – to cut the hedges. But we can't because of this farcical ban."

Mr Rutt said an influx of ditch maintenance work on farms "saved him" during August. But any orders for hedgecutting work from September onwards will depend on the weather.

"If it rains, we've got no hope – they [the landowners] won't let us on the ground."

Councils cut year round

He is aggrieved that gardeners and councils are allowed to cut hedges year round, including August. "I was in Lutterworth in June and local authorities were cutting hedges then," said Mr Rutt.

"If they are going to have an August ban, then it should be a blanket ban, which covers birds nesting in towns."

Essex hedging contractor James Perry, owner of Perry Contracting, said: "It's been a difficult year. We've had no grass to cut because it just hasn't grown.

"The August hedgecutting ban hasn't helped at all. We have been twiddling our thumbs."

A Defra spokesman said: "Hedgerows provide vital food and shelter for young birds in August and having considered all available evidence on wild bird breeding and rearing seasons in England, we have concluded our existing approach offers the best protection to our wildlife."

JOURNAL : Farmers Weekly

Dairy processors in Northern Ireland will soon be able to send more of their products to China after the government ironed out a pinch point in export legislation.

International trade secretary Liam Fox announced on Thursday (23 August) an agreement had been reached with China to allow the import of dairy products made in the UK but using milk from third countries.

Existing rules required all raw ingredients to be sourced from the UK. This proved to be a barrier to Northern Irish dairy processors who have milk suppliers on both sides of the Irish border, said AHDB international market development director Phil Hadley.

See also: China: What are the dairy opportunities for UK producers?

Mr Fox said: "Lakeland Dairies in Northern Ireland is likely to be the main beneficiary of this deal."

## En route to World Routes

China is seeing meteoric growth in demand for dairy products, including probiotic drinks, yoghurts and cheese, with demand in most categories increasing by more than 20% each year as more and more people adopt a Western diet.

The government estimate the deal is likely to be worth £240m over five years to the UK and Dr Hadley says it is likely to come into effect quickly.

Although the agreement frees processors to take milk in from any third country, it is unlikely there will be any significant uptake of from other destinations as the only real trade of raw milk goes on across the Irish border.

However, Chris Gooderham, AHDB lead dairy analyst said other dairy products, such as bulk cheddar, mozzarella and lactose are imported for processing before being resold as other products, potentially for exporting.

JOURNAL : Farmers Weekly

A fourth separate outbreak of the deadly African swine fever (ASF) has been identified in China, increasing fears over the country's disease control.

The world's largest pig herd has already culled 20,000 animals to try and contain the spread of the disease, according to the Chinese ministry of Agriculture and Rural Affairs.

See also: Guide to biosecurity measures to keep pigs disease-free

ASF has been discovered in four locations: Liaoning in the north-east of the country, Jiangsu on the east coast, the further inland Henan province and the most recent outbreak in Zhejiang. The disease does not affect humans.

<https://infogram.com/african-swine-fever-1hmr6g977e9z4nl?live>

There is no vaccine for the highly contagious disease and concerns are growing it may have spread to the regions between Liaoning where the outbreak was first discovered and the eastern regions where cases have been discovered in recent days.

Both Hebei and Shandong provinces, found between the two outbreak areas are large pig-producing areas.

Analysts fear the disease is being spread along busy livestock trade routes from farms in the North East to processing sites further south.

<https://twitter.com/EganBrockhoff/status/1031551667286634498>

Chinese pig producers have begun selling herds for slaughter in anticipation of further outbreaks pushing the price of pigs downwards to the US\$2/kg (£1.55) mark.

Prices recovered after hitting a four-year low earlier in the year but have fallen again as a result of the outbreaks.

China produces about 50% of the world's pigmeat with a national herd of about 500 million pigs.

The disease outbreak is the latest challenge for Chinese producers to contend with, following the 25% retaliatory tariff placed on US soya imports sending the cost of animal feed upwards.

UK opportunities

The disruption ASF will cause to the Chinese pork market offers opportunities for UK producers to offset the likely fall in the region's domestic pig production with UK exports.

UK pork exports to China and Hong Kong fell in the year to June 2018 compared with the same period 12 months before as the eastern nations domestic production increased.

<https://infogram.com/uk-pig-exports-1h984w8oogzd4p3?live>

Between January and June 2018, the UK exported 22,473t of pork to the region – a 19% fall on the year previous, according to AHDB Pork.

However, ASF will be a further blow to Chinese consumers trust in domestically produced food and increase demand for European exports, regarded as safer and of a higher quality.

JOURNAL : Farmers Weekly

A deal has been struck to allow Scottish seed potatoes to be imported to China for the first time.

This is seen as a massive opportunity for the Scottish agriculture sector as China is the biggest potato-producing nation in the world and Scotland will be the only seed producer to gain access to this market.

See also: 7 expert tips for getting the most from seed potatoes

Peter Grewar, NFU Scotland's potatoes working group chairman, said: "Although trade paths like this don't open up immediately, and there is still work to be done, it is extremely encouraging to see that our industry is getting a head start on developing these new partnerships.

"Seed potatoes are one of Scotland's most valuable agricultural outputs, with the potato sector as a whole producing 7% of Scotland's agricultural output.

"Put into context, the sector is equal to the sheep sector in Scotland, or it is equal to the pork, poultry and egg sectors combined."

Under the trade deal, Scottish seed potatoes will be the only seed potatoes to gain access to the Chinese market at this time.

Rob Burns, AHDB Potatoes head of seed and export, said in theory seed could move to China this export season, but it was more likely to start in 2019.

Tonnages were likely to be low to start with as exporters test the water – possibly 5,000 to 10,000t in the first season.

Mr Burns added that as it was a bilateral trade deal between the UK and China it was not linked to the UK's membership of the EU.

Scotland currently exports approximately 300,000 tonnes of seed potato annually.

Fergus Ewing, Scotland rural affairs minister, said the deal recognised Scotland's global reputation for producing high-quality seed potatoes.

He added: "The signing of this trade agreement has the potential to lead to its expansion to the rest of the UK, opening up the possibility of market diversification and contributing towards further sustainable growth in the sector."

JOURNAL : Farmers Weekly

Claas has added new models to its long-standing Rollant baler range, bridging the gap between the existing two options.

The new 540 is aimed at farmers and small-scale contractors who require a fixed-chamber round baler, with a beefed-up chassis, stronger rollers and the option of dropped floor to clear blockages.

See also: Big baler innovations could help farmers cut costs

Bale diameters of 1.25m and widths of 1.2m are made in the chamber, which houses 16 rollers made from 4mm-thick steel. The 540 also has MPS, which allows three of the rollers to pivot, applying pressure to the bale at 80cm rather than when it reaches its full size of 1.25m.

A key feature of the new machines is the option for either a 1,000- or 540-speed pto driveline, which can handle 206hp and 169hp, respectively.

For contractors, the need to provide customers with film or net wrapping is now essential and the 540 is kitted up to apply both, with the changeover time less than 10mins, we're told.

The 2.1m-wide pickup has various roller options, similar to the foragers, and three different pickup wheel choices, from fixed to folding, while the optional chopping system has 15 knives offering a 70mm chop length.

As yet, there are no prices for the 2019 model.

JOURNAL : Farmers Weekly

Richard Cobbald is more than doubling his area of cover crops this summer to put structure and organic matter into his "structureless" Norfolk light blow-away Breckland soils.

He aims to drill 200ha of these cover crops to give a good entry to next year's spring crops and also increase soil fertility on the 3,000ha South Pickenham Estate, where he is estate manager.

A "cheap and cheerful" mix such as oats and vetch is used to provide a cover crop over winter ahead of sugar beet, and more complex mixes for soil improvement ahead of range of spring-planted vegetables.

He tried 80ha of cover crop last season in his first year managing the estate with good results on light land that can wash away in seconds in heavy winter rainfall and can very easily slump and compact badly.

"After cover crops the fields were drier, and following a hard winter there was less ponding on the surface of these structureless Breckland soils," he tells Farmers Weekly.

See also: Practical tips for establishing cover crops

Soil erosion

Mr Cobbald believes it makes little sense to leave soils bare over the winter with all the problems that might bring such as soil erosion, while growing a cover crop can add organic matter and improve soil drainage.

"We see a lot more earthworms in the land after a cover crop and we find we can get on the land much earlier in the season when other fields may still be waterlogged," he adds.

He is yet to see any clear yield increases after his two years of cover cropping, but expects future improvements as he sees the soils looking much better with more organic matter and earthworms.

The simple oat/vetch mixture is used on his very lightest land ahead of spring-sown sugar beet, vining peas or barley, with the cover crop being sprayed off with glyphosate before spring drilling.

A key part of the estate's business is renting out about 550-600ha of land for vegetable production, primarily potatoes and onions, but also carrots and parsnips, and providing these crops with water from the estate's reservoir and bore-holes.

Intensive vegetables

## En route to World Routes

The estate land is growing these vegetable crops one year in every five or six years so Mr Cobbald is keen to get the soil in the best possible condition for handing over for the following year's cultivations.

Ahead of an intensive run of vegetable crops, he is looking for cover crops to give strong root growth suited to breaking down compacted soils so the follow-on crops can use the ready-made root chambers to explore deep into the soil.

### Cover crops mixes

The estate is using a TerraLife-Rigol DT cover crop mix from DSV after its early lifted vegetables, which includes deeptill radish, serradella, flax and sunflowers plus many other species. The mix is claimed to have a root structure ideally suited to breaking down compacted soils

Here, he is using a cover crop mix using deeptill radish, sunflowers and other species, which is drilled after early lifted carrots before going into a following crop of potatoes or onions.

"This is particularly useful after these early lifted vegetables when we need a tap root to try to give the soil some structure and better drainage," he says.

The roots from deeptill radish make a big difference to the soil, helping it to drain well as run-off on bare land after harvested vegetables can be significant on this light land, he adds.

### Cover crop costs

The cost of the cover crops varies between £10/ha and £20/ha with the oat-vetch being the cheapest mix moving to the deeptill radish mix at the higher end.

Most of the cover crops are established using a Vaderstad TopDown light cultivator with a Biodrill attached, and this year all the cover crop are expected to be drilled by the first week in September.

"We are building up knowledge about cover crops and know we are putting something back so they should benefit the soils and eventually yields," he says.

The summer drought hit yields across the estate so the effect of the cover crops was difficult to assess this summer, but Mr Cobbald remains confident about their success on the farm.

The estate, three miles south-east of Swaffham, consists of about 2,300ha of arable cropping, growing wheat, barley, oilseed rape, sugar beet and vining peas along with the vegetable crops.

In addition, there is permanent grassland and water meadows along the River Wissey grazed by a 600-strong Aberdeen Angus cross Charolais suckler herd and followers.

### Cultivation change

The Norfolk estate is looking to improve establishment on its light soils by switching to strip-tillage for drilling oilseed rape this summer to restrict soil disturbance to a minimum.

James Brown, farm manager at the estate, is trying out the new strip-till technique this summer to improve establishment on the light Breckland soils.

With 250ha of rapeseed to drill, he is using a cultivator with a disc and heavy tine ahead of each drill coulter of a Vaderstad Tempo precision drill this year rather than the min-till approach of the past.

This one-pass system will help cut costs, retain moisture by cutting down on soil disturbance while a seed-bed with fewer clods will mean fewer places for pests such as cabbage stem flea beetles to hide.



## En route to World Routes

Rain in early August came at just the right time to allow oilseed rape drilling to start and this season's crop was all in the ground by 25 August in ideal conditions with the soil "warm to the touch".

## JOURNAL : Farmers Weekly

Researchers from the University of Minnesota have been comparing the performance of three-way-cross cows (made up of Viking Red, Montbeliarde and Holstein) to Holsteins.

Their studies have compared feed intake; milk volume and milk fat and protein production; fertility as well as health costs.

We were invited to a study tour in Portugal where the results were revealed and where we also caught up with three farmers from Europe using this ProCross breed to see how they are performing in their systems.

Feed intake and milk production study

10-year ProCross study findings

Case study one

Case study two

Case study three

Pros and cons of the cross-bred animal

Hybrid vigour effect as crosses increase

Feed intake and milk production study

Cross-bred cows are more efficient at converting feed into milk solids compared with Holsteins, the latest research from the University of Minnesota, US, has found.

ProCross cows ate 373kg less total mixed ration (TMR) across three lactations compared with Holsteins, but produced the same milk solids.

What is ProCross?

It is a three-way cross of Viking Red, Montbeliarde and Holstein used in rotation to maximise hybrid vigour.

How the trial was carried out

The study was led by PhD graduate Brittany Shonka-Martin at the University of Minnesota.

She compared the feed intake of Holstein and ProCross cows from first to third lactation over a three-year period.

See also: Alternative forage options for dairy cows this winter

Cows were fed the same TMR twice daily in tie-stalls with partitions in the feed manger. Feed intakes were recorded from day four to 150 of lactation, with individual cow body weight, height and body condition score (BCS) also chronicled.

Results

Prof Les Hansen, dairy cattle genetics specialist from the University of Minnesota, who has led a lot of research on ProCross, revealed the results of the study to delegates at the ProCross conference in Lisbon, Portugal.

## En route to World Routes

In first lactation, Holsteins (60) ate more feed than the ProCross (63) at 2,948kg and 2,807kg, respectively (-141kg or 4.8%). The Holstein did produce 206kg more milk at 4,770kg, but milk solid production was 2kg higher in the ProCross group at 331kg (see "Dry matter intake and production in first lactation")

In second and third lactation, the differences became even more stark, with ProCross animals eating 232kg less than Holsteins, on average. Once again, volume of milk in the group of Holsteins was higher by 372kg, but combined fat and protein levels were 4kg higher in the ProCross group.(see "Dry matter intake and production in second and third lactations:)

Average bodyweight was not significantly different between the two groups of animals. Yet ProCross held body condition better at 3.46. This was +0.26 higher than the Holstein at 3.20. This trend continued in second and third lactation.

<https://infogram.com/copy-procross-trials-2-1hxj4885evg54vg?live>

<https://infogram.com/procross-trials-1hnq411kznjp43z?live>

What the results mean

With the majority of UK contracts now paying for milk solids rather than liquid, Prof Hansen said UK farmers could capitalise on this by using the ProCross breed.

"Farmers think if you are going to cross-breed you lose production, but that's not the case. You may lose water, but fat and protein production are the same."

Prof Hansen said improved body condition also afforded cross-bred cows better fertility.

"Cows that carry more body condition have better fertility and better health – that's well known. The body condition comes heavily from Montbeliarde because they select to preserve it."

Can the Holstein cow compete?

In comparison, Prof Hansen, who also teaches Holstein dairy judging at the university, said until 10-15 years ago Holstein breeders ignored fertility and health in favour of tall cows, which has a negative relationship on health and fertility traits.

"It's a profitable cow that should really matter. Show cows don't often make you the most money, but they can be fun.

"The Holstein cow was a wonderful cow. She peaked globally in 1985 and there was no cow that could compete with a Holstein, but breeds change."

Inbreeding

When questioned whether the change in the quest for a more functional and fertile Holstein could once again cement the Holstein back in poll position, Prof Hansen said current inbreeding could hinder progress.

Since the advent of genomics, inbreeding within the Holstein breed has sped up rapidly in the US. In 2010, inbreeding stood at 5.67%, but this has increased to 7.23% in 2017.

However, UK inbreeding is lower than this. Data from more than 180,000 Holstein calves born in 2017 show the average level of inbreeding to be 5.17%, which rose by just 0.14% on the year, figures from Holstein UK show.

Once inbreeding gets above 6.25%, traits such as fertility, health, mortality and longevity suffer. However, inbreeding has no effect on type.

Prof Hansen blamed the "race to the top" of bull rankings by AI companies for this decline.

## En route to World Routes

"The Holstein industry is breeding the best to the best as fast as [they] can. It's a race because it's all about survival of the company and right now you have to have the highest genomic young bulls to survive. So, we have this dilemma that's really becoming an issue."

One way to lessen the decline, Mr Hansen said, was for companies to move to internal genetic evaluations that aren't shared with anyone outside of the organisation, like the pig and poultry industries.

However, Marco Winters, head of animal genetics at AHDB Dairy, said dairy farmers would lose out ultimately because genetic evaluations would be in the hands of companies and would rely on them being completely honest.

"In the pig and poultry sector, turnaround is rapid. If you get the wrong chicken you know pretty much in a month, but in the dairy world it takes three years before you have any results."

Mr Winters said inbreeding was an "inevitable by-product" of doing an excellent job of genetic progress, adding: "Although inbreeding is increasing in the UK, we are increasing at a really slow rate and because we started from a Friesian base, it is at a safe level and very easy to manage."

"Inbreeding should never be a reason to go cross-breeding. There may be other reasons, but inbreeding shouldn't be one of them."

Mating programmes are currently available in the UK to check for inbreeding coefficients on prospective matings, but the AHDB hopes to launch a genomic inbreeding tool next April.

The tool will be available to use within their Inbreeding Checker programme to give farmers more accurate information on inbreeding.

Current inbreeding values are based on the probability a calf will carry the same copy of a gene inherited from its ancestors and is a crude measure, but this new tool will allow farmers that are genotyping to actually see what genes calves inherit and predict inbreeding levels in further matings.

Darren Todd, Holstein UK geneticist, said in the future UK herds could mirror what US genetic company Select Sires practices.

They use a programme called StrataGen, which uses genomic insights to colour-code daughter proven and young sires into one of five genetic lines based on traits they have inherited from ancestors to avoid inbreeding.

### 10-year ProCROSS study findings

Scientists from the University of Minnesota carried out a 10-year study comparing ProCross cow performance to purebred Holsteins from seven farms in the US.

They started with one group of 3,550 purebreds and bred 1,455 pure and 714 to Montbeliarde and 714 to Viking Red.

Daughters from the two cross-bred groups were then mated to either Montbeliarde and Viking Red to achieve a full ProCross animal. Once this three-way cross was achieved, those animals were mated back to Holstein.

Researchers monitored fertility, health costs and milk production of two-breed-, three-breed- and four-breed-crosses across different lactations compared with pure Holsteins.

They found:

Two-breed ProCross cows produced more combined fat and protein than Holsteins in first to fourth lactation.

## En route to World Routes

Three-breed ProCross cows produced less milk solids in first, second and third lactations when compared with Holsteins.

This was compensated by higher fertility, with two-breed ProCross averaging 12 fewer days open across three lactations than Holsteins.

This effect was enhanced with three-breed-crosses averaging 26 fewer days open again compared with purebred Holsteins.

By the time the cross was bred back to Holstein (generation four), their fat and protein production in first lactation overtook the pure Holsteins by 10kg.

Health costs in cross-bred cows reduced as the number of crosses increased from two crosses to three and lowered further as the number of lactations increased.

On average, the three breed crosses (VMH and MVH) saved farms £23.50 an animal in third lactation compared with Holsteins, which cost £116.

Case study: Farm owner Anders Nilsson and herd manager Jan Eriksson, Skramered Farm, Laholm, Sweden

Anders Nilsson has increased cow profitability by £300 a head since switching to the ProCross.

His herd of Holsteins were averaging 11,500 litres, but it was taking two straws of semen to get cows to conceive. Therefore, in 2011 he changed breeds in the quest of better fertility.

Farm facts

Milking 350 cows

400ha

Feeding 4t a concentrate a cow a year

Cows housed in straw-bedded cubicles

30% cull rate as they have been removing Holstein

Cows producing 40 litres on average daily

Year-round calving

Now, the herd is producing 13,000 litres at 4.2% butterfat and 3.2% protein on three-times-a-day milking, but fertility has improved, with straws to conception averaging 1.5.

While the production lift has been a benefit of moving to three-times-a-day milking, herd manager Jan Eriksson believes improved fertility was noticeable immediately.

They used the Viking Red over the Holsteins for calving ease and then mated their daughters to Montbeliarde. Mr Eriksson believes the first crosses were the best.

The farm sells 50 surplus heifers annually and now has ProCross cows in their third lactation milking.

Mr Eriksson says: "Our goal was to have a smaller cow with better fertility. Now we have a smaller cow that gives more milk, but she's pregnant more quickly."

Case study: Will Nixon, Nixon's Farm, Market Drayton, Shropshire

## En route to World Routes

Will Nixon imported 80 in-calf ProCross heifers from Denmark last year after fertility slipped in his herd of 300 pure Holsteins.

He farms in partnership with his dad, Ian, and uncle, David, near Market Drayton. He says they were very happy with the performance of the Holsteins in 2004, when cows were achieving 29 litres daily with 19 litres produced from forage.

Farm facts

Milks 380 cows

Supplies Muller-Tesco

Autumn block-calving (August to December)

Achieves 8,500 litres at 4% butterfat and 3.2% protein

2,800 litres from forage

Cull rate is 30%

Calving interval is 383 days

2.6 cows/ha

Feeds 2.6t a cow

However, since then Mr Nixon says genetic progress had halted, with production reducing by 2 litres a cow and calving interval slipping to 400 days.

He has been comparing the performance of the ProCross heifers in their first lactation to 80 Holstein heifers since both calved in August.

The comparison has shown:

Holstein heifers produced 42 litres more milk on average in first lactation.

ProCross heifers produced more milk solids at 4.1% butterfat and 3.54% protein compared with Holstein heifers at 3.75% and 3.21%.

This year, only three ProCross heifers are not back in calf compared with 26 Holsteins to calve within their autumn block.

Conception rate has been better on ProCross heifers at 58% and 1.7 services to conception.

In comparison the conception rate of Holstein heifers was 44% and 1.9 straws to conception.

This year they have served everything to Montbeliarde to begin the conversion to ProCross.

"The fertility of the ProCross is superior to the Holsteins and I hope to see longevity improve too.

"The aim is to tighten our calving block and reduce our cull rate to 20% and in turn that should increase our yield, as we will have more older cows in the herd."

Case study: Arthur Palmer, Oulton House Farm, Norbury, Staffordshire

Autumn calver Arthur Palmer reckons he has reduced his cost of production by 4p/litre since he began cross-breeding eight years ago.

## En route to World Routes

His herd fertility was the main reason he made the move, with calving interval back in 2010 languishing at 425 days and replacement rate peaking at 31%.

## Farm facts

9,500 litres of milk (35% of the herd is made up of heifers) at 4.1% butterfat and 3.3% protein

Calf mortality: 1 in 400

2.75 cows/ha

Feeding 2.8t concentrate a cow

4,000 litres from forage

Calving August to November

Supplies Muller-Tesco

Cull rate: 21.8%

Calving interval: 383 days

At the time, milk a cow had risen to 10,000 litres, but trying to get cows in calf at grass was proving difficult.

Mr Palmer started by experimenting with Fleckvieh and Norwegian Red, but moved to ProCross in 2014.

He now has mainly Holstein cross Montbeliarde cross Viking Red cows and only has 35 Holsteins left in the herd. Since 2012, the herd's age at first calving has reduced from 24.9 to 23 months and average inseminations to conception has lowered by 2.36 to 1.7.

This has allowed him to review the performance of a small group Swedish Red cross Holsteins and Holsteins through to fourth lactation.

Longevity and lifetime production has been better in the group of cross-bred cows.

Lifetime production and lifespan of Holstein v Swedish Red-cross from first calving to fourth lactation

## Swedish Red-cross

## Holstein

Cow number in lactation one

32

44

Milk production (kg)

47,342

29,350

SCC

243

## En route to World Routes

313

Fat and protein (kg)

3,613

2,217

Longevity (number left in lactation four)

27

11

He says the only downside is that cross suckling seems to have increased.

Pros and cons of the cross-bred animal

Pros

Cons

Calves are more vigorous due to improved hybrid vigour

Trials show they produce more milk solids than Holstein cows and eat less

They have lower associated health costs

It reduces inbreeding by using the best bulls from three breeds

Higher level of cross-suckling in calves

Larger bodyweight than Jersey-cross cows and therefore will eat more and can't be stocked as heavy on grazing platform

It takes a long time to get a herd of consistent animals once you start the process – it is not until the third generation that you get that uniformity

Hybrid vigour effect as crosses increase

Generation

Two-way cross

Three-way cross

Four-way cross

G1

100

100

100

## En route to World Routes

G2

50

100

100

G3

75

75

100

G4

63

88

88

G5

69

88

94

G6

66

84

94

G7

67

86

94

G8

67

86

93

G9

67



86

93

\*This shows hybrid vigour is maximised with a three-way cross

JOURNAL : Farmers Weekly

A Cumbrian sheep farmer has been banned from keeping livestock for seven years after he admitted a raft of animal welfare offences.

Daniel William Waring, 48, previously pleaded guilty to more than 30 animal welfare and disease offences at Haithwaite Farm, Penton.

He appeared at Carlisle Magistrates Court for sentencing on Tuesday (28 August).

See also: How to identify, prevent and treat the five sheep 'iceberg diseases'

Jon Farnworth, prosecuting on behalf of Cumbria Trading Standards, outlined three sets of offences admitted by Mr Waring.

He had previously pleaded guilty to causing unnecessary suffering to sheep between December 2017 and January this year. More than 640 of Mr Waring's sheep died due to starvation and neglect during this period.

Mr Waring admitted failure to abide by strict disease control regulations governing animal movements, including breaches of the six-day standstill rule. He also failed to adequately report and keep farm records.

The third group of offences related to his failure to dispose of animal carcasses in a timely manner.

Mr Farnworth told the court that Mr Waring's failure to seek immediate veterinary attention for his stock left them "dying like flies".

Farmer 'truly sorry'

Simon Catterall, defending, explained that the disease outbreak took a long time to control because it was mistakenly assumed to be liver fluke disease, until later post-mortem examinations suggested the presence of a multi-resistant worm.

He added: "Mr Waring was overwhelmed by the rapid escalation of the outbreak. He was already drowning in paperwork and shattered by the sudden death of his father and uncle and was unable to cope. He is truly sorry."

District judge Gerald Chalk sentenced Mr Waring to four months imprisonment, suspended for 12 months. He ordered him to carry out 110 hours of unpaid work.

Mr Waring was also disqualified from keeping and owning livestock for seven years and told to pay £17,668 prosecution costs.

JOURNAL : Farmers Weekly

Food prices will rise by at least 5% due to extreme weather hitting crop yields and pushing up farm input costs, consumers are being warned.

Farmers and domestic food production were feeling the impact of this year's dry summer following a cold, wet spring, said the Centre for Economics and Business Research (CEBR).

See also: Base rate rises to 0.75%, adding to farm costs

As a result, wholesale prices for vegetables were rising markedly, it said.

## En route to World Routes

From March to July the farmgate price of onions (+41%), carrots (+80%), lettuce (+61%), wheat for bread (+20%) and strawberries (+28%) rose by a fifth or more each.

The CEBR used Defra research into the sensitivity of consumer prices to wholesale price shocks to estimate the UK's shoppers will have to pay an extra £45m/week for food.

## Price spikes

This is equivalent to a rise of £7.15/month for each household.

Commodity price spikes could take 18 months to fully feed through into inflation so the cost to consumers looked set to climb even though milder weather is expected in the autumn.

Even when grass growth returns to normal, reduced grazing and lack of forage will have a lasting impact for months to come.

Some farmers have had to turn to already depleted backup supplies to boost production, which will keep upward pressure on feed costs in the coming winter.

The CEBR said the heat had reduced the fertility of pigs and contributed to an 8% rise in piglet prices since March – with an expected knock-on effect on the price of bacon.

It expects the price of red meat to fall marginally in the short run as farmers sold livestock earlier than normal to reduce the burden on grazing land.

## Weak harvest

In the longer run, however, prices are expected to rise as feed availability is affected by a weak harvest which will push up costs.

Much of UK's grain – used to feed livestock, as well as for numerous food products – is imported from Europe, which has also seen record high temperatures this year.

Reserves have kept prices from spiking drastically thus far, but industry forecasts and futures prices point toward coming increases.

The weak pound and the recent increase in the Bank of England base rate has also pushed up farm input costs and the cost of borrowing.

Wheat, which features heavily in European and British shopping baskets, is a particular concern.

The CEBR said the wheat harvest was forecast to be down by 5% this year, and European wheat futures are trading about 30% higher than at the end of April.

With the wholesale price of many crops already rising very significantly and meat prices set to climb in coming months it seems likely that wholefood prices will rise at least 5%.

## JOURNAL : Farmers Weekly

What a difference a month can make. We were relieved when the rain arrived here at the end of July – the farm greened up almost overnight.

Steady rain since has led to some serious grass growth and now almost farcically has put us in a position where we are faced with a surplus of grass on the platform.

So to ensure the grazing rule book is firmly thrown out of the window for 2018, we are going to take silage off the platform over the next week or two.

## En route to World Routes

We will measure grass again tomorrow, but I suspect our average cover has jumped up again from the 2,350kg DM it was last week, with growth rates probably somewhere between 70 -90kg DM/day.

See also: What is the ideal DM to milk solids ratio to survive price volatility?

## Grass DM drops

Cows responded well, with milk up about 2-3 litres a day, although this is proving harder to maintain now pre-grazing covers are getting heavier. Lower-DM grass is resulting in some less-than-ideal residuals.

The milking herd here at home was scanned today with an 8.6% empty rate after 12 weeks of mating and 84% of them in calf within the first eight weeks.

Given the poor weather at the end of 2017 and the tough spring we are delighted with the results - sets us up nicely for 2019.

The majority of the heifers entering the herd will calve in the first three weeks, guaranteeing another compact and busy calving period.

## Spring system getting stick

I was disappointed to read an opinion letter published recently in the farming press citing young spring calvers in north Wales as the cause of the increase in forage prices.

It blamed them for unsustainable farming systems, the need to buy silage and paying high land rents.

The one huge contradiction the author made was that the basis of the moan was that his merchant was charging him more to purchase forage this year – an alarming mindset.

The sense of entitlement to purchase a commodity at the same price each year leads to grossly unjustified, sweeping statements aimed at a single section of one farming sector.

I'd welcome this person to our farm any day, to attend a discussion group meeting and even allow a reciprocal meeting at their farm.

Johnjo Roberts is a Farmer Focus writer on Anglesey. Read his biography.

## JOURNAL : Farmers Weekly

Now then, there's been no sleep until bedtime at Osgodby Grange of late. Harvest is over in record time.

All the yields were down on all crops across the board, which isn't a surprise.

Since I last wrote, we have cleared out all the young bulls and we are now **filling** up with stores a month earlier than usual due to the drought conditions, with suckler breeders having very little grass.

These have all been weighed in and are, on average, 56kg lighter than the same cattle last year.

We are feeding 20% more feed to the stores on arrival because they are "big, empty houses" and once we have caught them up, which is taking about a month, they are settling down into a more normal feed regime.

See also: Focus on traits for best beef finishing returns

We are more or less self-sufficient in our requirement for straw here. The price of straw has been much hyped up on the open market. However, it would be nice to think farmers could swap straw for muck on a national scale.

## En route to World Routes

The soils in the arable parts of the country are screaming out for organic matter, but I know through being a member of the Trade Assurance Scheme for Combinable Crops that back-loading with farmyard manure to keep the feed or straw wagon full for both legs of the trip is a big no-no.

To keep our feed lot bedded up we need to bale in the region of 4,000 bales. Baling is one task, moving them is another, so for the third year running the “super C “ has been unleashed.

This is where you clank together three articulated trailers and dollies to form a road train. A fourth trailer would be a "super D", and two is a "super B" - the "C" is 170t in length, 48.6t in total, with 72 round bales on and 400 ponies (horsepower) up front.

We can move and stack 150 round bales an hour if we really try to get on. In homage to ice road truckers we have sprayed the wheels with a yellow strip so we can see in the mirrors if the brakes have frozen on.

Doug Dear is a new Farmer Focus writer. Read his biography.

JOURNAL : Farmers Weekly

We've recruited a head shepherd and trainee arable manager. They should start by early October (just houses, trucks, phones, kennels etc to sort by then).

We have also come across a rather useful Harper Adams student – James - and have adopted/abducted him to help out.

We've recently been weighing, weaning, combining and drilling forage crops, as well as drilling green manures. Green manures are quickly grown crops (such as. mustard) that we leave to rot over winter to build up organic matter in the soil – an important technique in livestock-free areas of southern England.

Another job has been tooling up to take all of our arable work in-house. I (Jo) have been shooting off all over the country to buy the best bargains.

See also: Buying a tractor? How to make sense of engine statistics

In 2003 I wrote a letter to Farmers Weekly titled “How will I buy a tractor?” – machinery dealers never talk to me, always opting for male companions. It wasn't easy, but I did it.

The recent price hikes have also helped us to see the light – being offered £220/t for malting barley seems unbelievable.

Field fire

We did have a bit of a setback while cutting the spring barley – before the weather broke, with everything tinder-dry, a flint on the knife started a fire.

Rob and I gathered up our predecessors' collection of antique fire extinguishers (about 20 of them) and, along with the gamekeeper and a friend of his, we just about kept the fire out of the standing crop until fire brigades came from 10 stations.

We were going to bale the straw and the fire was racing up the swaths, so I got the forklift to push the straw back and three neighbours rapidly brought cultivators to create breaks.

About 4ha of crop was lost and another 32ha of stubble burned, but no one was hurt and no machinery lost.

After, we emptied the local shop of bottled water for all the firefighters. We got a curry, went home, had a beer, and hugged our children.

## En route to World Routes

My favourite comment has been from my middle daughter, Evie. While I was bailing out the induction pit for the old bin store, both girls picked up brooms to "help". When George - our youngest - tried to pick one up, Evie said to him "out the way Georgie, this is girls work".

See Rob and Jo Hodgkins' biography

JOURNAL : Farmers Weekly

Harvest 2018 so far has been the most straightforward one I have experienced at Lower Hope.

Wheat harvest started in July and was finished by 10 August, which for this part of the country is unheard of.

The oilseed rape harvest was completed in the last few days of July, with pleasing results.

See also: Force majeure in farm contracts – understand the small print

Campus was the mainstay of our varieties, once again doing the business by averaging 4.43t/ha, and has been selected for 2019.

A trial on one field of a late applied foliar urea-based product put 0.5t/ha on the average yield as well as resulting in a positive effect on the oil percentage.

Above average

After the OSR we moved straight into wheat. Despite being drilled last, the late-drilled Costello at lower altitude was ahead all season.

The first field was cut before a short rain delay and our spirits were lifted as it averaged 10t/ha with some incredible specific weights, hitting 82kg/hl on some trailer loads, and at 13% moisture.

The wheat was completed within the week with some good long days of combining. Graham and Costello have both done well. With 1,150t over the weigh bridge and an estimated 200t in the shed, I am hoping we are going to average 9.6t/ha – 1t/ha over our long-term average.

We still have the winter beans and the spring oats left to cut – the spring oats are going to bring us back down to earth. Unfortunately, these are on a tonnage contract and I know we are going to be short, so much so I have taken a bit of cover, a costly lesson to learn!

Our new ex-demo John Deere tractor has arrived just in time to be put straight to work drilling cover crops and then into drilling OSR.

Elsewhere the grass has finally started to grow again just in time for flushing and tugging the ewes. Over 1,300 fat lambs have now left the farm with a few more left to go in the store market in the autumn.

JOURNAL : Farmers Weekly

Harvest started well this year with good weather and low moisture contents. However, winter barley was disappointing, which didn't really surprise me.

It suffered badly from a very wet winter and spring, which affected establishment and tillering, and resulted in a thinner than normal crop, which only managed 7.5t/ha at 15% moisture.

Oilseed rape followed, with one field achieving 3.5t/ha, but the second one was very disappointing – again due to poor establishment.

See also: Oat market offers opportunity for farms in the right areas

## En route to World Routes

Winter oats, however, lifted my spirits with 7.5t/ha at 15% and good quality. Straw, which is very valuable this year, has all been baled and snatched up by customers.

Unfortunately, the good weather has now left us, hopefully temporarily, so that I can move into wheat, which looks quite well, but I never like to get my hopes up until I am actually in the field. Spring crops will be into September.

## Profitability and equality

I recently attended a couple of early morning Ulster Farmers' Union meetings to consider our response to the Northern Ireland version of the Health and Harmony consultation.

Credit should go to our department of agriculture for trying to plan ahead for life after Brexit, particularly in the absence of a government here.

There are a lot of sensible proposals in the 68-page document, but my main concern is that 'profitability' is only mentioned twice and 'equality' not at all.

Productivity, resilience and environmental sustainability do not necessarily deliver acceptable profitability.

If we are to develop a sustainable agricultural policy going forward, it must be based on profitability and equality for the whole supply chain, not just parts of it.

If we can get that right, everything else will fall naturally into place. Another concern is that with no government in place here none of these proposals can be implemented.

Unfortunately, some of our politicians don't seem to want government in NI to work while others don't seem to understand the rules they are supposed to abide by, but all are happy to continue to receive hard-earned taxpayers' money for doing next to nothing. This crazy situation has to stop.

## JOURNAL : Farmers Weekly

Farmers have branded Lynx Trust UK "deplorable" and "misleading" over claims they have support from landowners for releasing the wild animals in Northumberland.

The community in Kielder and the surrounding areas has come together to form a united group in order to refute this, supported by the National Sheep Association (NSA) and the NFU.

The group has released a statement challenging Lynx Trust UK and calling on Natural England, currently deciding on whether to issue a licence to reintroduce lynx into the wild, to "thoroughly test all claims" made in the licensing application.

See also: NSA and wildlife group clash over lynx release plans

Natural England should also run its own public consultation exercise before any decision is made, the farmers and landowners said.

If approved, the trust's application would see six cats released into the wild as part of a five-year trial – which, depending on its success, could lead to a wider reintroduction of the lynx in other parts of the UK, such as the Scottish Highlands.

On 8 August, the trust said 100% of the landowners approached had given their go-ahead for the trial reintroduction of Eurasian lynx to Kielder Forest.

## Challenging trust's claims

"In particular we are challenging the claims made about the public consultation run by the trust in our area and the claimed support," the Kielder group said.

"We reject any suggestion that objections only concern potential sheep losses. We strongly object to the consequent abuse generated against our farmers by those who have no knowledge of our area and its communities."

The statement stressed that local ecological restoration projects and agri-environment schemes have strong support and are greatly valued, and raised concerns about the welfare of any animals released in the "busy, industrial" Kielder Forest.

The launch of such a project should be questioned, said the group, considering Paul O'Donaghue, chief scientific adviser at the trust, said during a public meeting at Tasset in February 2017 that a lynx population in Kielder could never be truly wild because continuing human intervention would be needed to ensure the renewal of its gene pool.

No decision made yet

In response to the Kielder statement, a Defra spokesman said: "Any decision to grant a licence to reintroduce lynx into the wild in England would be based on the potential impacts on affected communities and the wider environment, and follow international guidelines.

"No decision has been made and ministers will decide whether to grant a licence after considering advice from Natural England."

On behalf of the trust, Dr O'Donoghue said: "It's heart-warming to see the NSA and NFU so concerned for the welfare of Eurasian lynx, though their understanding of the species biology and behaviour leaves a lot to be desired."

JOURNAL : Farmers Weekly

Britain's agricultural students are our future farmers, advisers, managers and skilled workers – without their energy the industry would be lost.

All three of our Ag Student of the Year finalists are brilliantly ambitious, have an unshakeable commitment to agriculture and impressed the judges with their smart ideas.

See also: Meet the 2018 Farmers Weekly Awards finalists

The 2018 Ag Student of the Year Finalists

Luke Cox

Alex Dunn

Emily Hickman

The judges

Josh Dowbiggin – 2017 Ag Student of the Year

Oli Hill – Community editor, Farmers Weekly

Ian Pigott – Independent judge, Hertfordshire farmer and Farmers Weekly columnist

Luke Cox

Tetbury, Gloucestershire

Rather than follow the herd to study at one of Britain's more obvious agricultural universities, Gloucestershire farmer's son Luke made a conscious decision to go mainstream.

## En route to World Routes

The twenty-two-year old left the family farm to study for a degree in agriculture with industrial training at the University of Reading.

He opted for Reading because he wanted to be in an environment where his peers were from a diverse range of backgrounds with interests beyond his own.

Living and learning with people outside the farming bubble meant he wasn't preaching to the converted when he set about banging the drum of British agriculture.

## Student notes

Studied at: University of Reading

Course: BSc (Hons) Agriculture with Industrial Training

Favourite module: Cereals marketing

Ambition: To gain experience working as a farm trader before returning to help run the family farm

Fun fact: Luke loves playing a range of sports and is a qualified football referee and tennis coach

## Studies

Graduating with a 2:1, Luke is described by his peers as a highly motivated and extremely proactive member of the student community.

He went above and beyond what many would expect to achieve during their time at university, completing extracurricular activities to develop his management skills and brush up his CV.

He has also been an active member of his agricultural society, organising events such as the University of Reading's very first Back British Farming day in his final year.

The idea was to shout about how fantastic British agriculture is and encourage the public to think more about where their food comes from and how it is produced.

"Almost all of the issues facing the industry at the moment relate back to public understanding," says Luke.

"The university is the best in the UK for agriculture, but I didn't feel they were doing enough to promote the industry to whole student populations.

"I spent the whole of last year working on the concept, applying to the Student Union to get its support."

This was no easy task, given a historically fractious relationship with the Student Union after the ag society was disbanded.

The day took over the campus, capturing the minds of the thousands of students milling around and going some way to healing the difficult relationship between the society and the union.

## Farm experience

Away from life on campus, Luke has always been keen to gain practical farm experience on other farms before he returns home. He knows how to get the most out of working for other farmers.

"At harvest, I would actively choose to do different jobs rather than just corn carting all the time," he says.

"For example, I took the opportunity to run the grain dryer to gain more experience and develop other skills and focus on my personal development."



## En route to World Routes

While a work placement was not an essential part of this degree course, Luke had always intended to get a year of working in the industry under his belt to help him land a job after graduating.

His placement with agronomy advice group Frontier saw him make the most of opportunities on the precision farming side of the business, supporting farm traders and assisting in trials work.

"My initial development of a new grain sampling system using barcodes was probably my biggest impact on the business," he says.

## Aspirations

Luke's placement with Frontier proved a good decision – it helped him bag a full-time role as a trainee farm trader straight after leaving university.

He is now set on building a career and strong working relationships in this sector, with a view to returning to the family farm one day to take the reins.

## The judges liked

Enthusiastic about grain marketing and strives to develop his skills and level of understanding

Driven and willing to take risks to get where he wants to go in life

Took it upon himself to try to heal a somewhat fractious relationship between his student union and the society he belonged to for the benefit of his peers

## What the judges say

"Luke is passionate about arable farming and is pursuing opportunities beyond the gates of his family's farm to build his own skills and experience. He is keen to promote British farming."

## Alex Dunn

## Reading, Berkshire

While not from a farming family, 21-year-old Alex has been dead set on getting into farming for as long as she can recall. She showed her willingness in her teenage years, helping out on a local mixed livestock smallholding, which fostered her love of farming.

Fast forward to today and she recently graduated with a first-class degree at the Royal Agricultural University (RAU), where she was recognised as a stand-out student.

Currently working on a dairy farm in New Zealand, Alex has bundles of enthusiasm for the future, with ambitions to become a dairy farm manager or get into milking goats. She also has plans to tackle agriculture's poor health and safety record.

## Student notes

Studies at: Royal Agricultural University, Cirencester

Course: BSc (Hons) Agriculture, fourth year

Favourite module: Entrepreneurship

Ambition: Getting into milking goats on her return to the UK

Fun fact: Alex is a qualified open water scuba diver

## Studies

Studying straight agriculture at university, Alex says her favourite element of her degree course was a module focused on entrepreneurship.

“It looked at farm business development – other ways that farms can make money through diversification and business planning,” she says.

As a student ambassador, she loved promoting the benefits of studying agriculture to young people.

Just as the challenge of having no prior knowledge or experience of farming didn’t stop her from starting out in the industry, Alex has not allowed her severe dyslexia to stunt her impressive progress.

She dictates to her computer and uses other technologies for tasks such as writing her dissertation, which investigated the issues that will face UK farmers after Brexit and opportunities for greater collaboration in the future.

Her experiences of working on dairy farms in New Zealand feeds into this piece of work.

“In New Zealand there is a lot of focus on the business. In the UK we are very individualistic, but there are many benefits of co-operation and collaboration that would raise our productivity,” she says.

## Farm experience

During her studies Alex worked part-time on a dairy livestock farm in Wiltshire with about 1,500 head of livestock, including an organic Jersey cross dairy herd. She also has experience of working with sheep and goats.

She embarked on a five-month trip to New Zealand last year as part of her course placement.

“It included sightseeing and farm work experience on a dairy goat farm on the North Island and later a cattle dairy farm on the South Island. This was an amazing experience. It would have been easier and cheaper to stay in the UK for my placement, but I wanted a challenge and to stretch myself,” she says.

One issue that she feels strongly about is health and safety. She has developed a prototype smartphone app to help with staff management and health and safety, and aims to secure funding to develop it.

“Poor health and safety in agriculture is a deep-rooted problem that needs a solution,” she says. “This app would help to protect staff and visitors by changing attitudes towards health and safety and promoting best practice.”

## Aspirations

Once she is back from working abroad next May, Alex will set her sights on getting into farm management, although her ultimate aim is to have her own farming business.

“This is an industry that is exciting and open to those not from farming backgrounds. I like the quick response to actions in dairy and I’m good at reading people, so my short-term goal is to become a dairy farm manager. I would also love to get into milking goats because this is a growing market in the UK,” she says.

## The judges liked

Has actively sought out work on many different farms in the UK and abroad to build up her practical knowledge and understanding of farming

Shows real entrepreneurial flair and is serious about improving agriculture’s poor health and safety record

A strong ambassador for British agriculture

What the judges say

## En route to World Routes

"Alex is somebody who turns challenges into opportunities. She is a real grafter, is confident and is selflessly working to improve British agriculture."

Emily Hickman

Prestatyn, Denbighshire

Emily isn't somebody who does things by halves. Her boundless enthusiasm and open-mindedness make her one of Britain's brightest young people in agriculture.

Growing up in north Wales, her childhood home backs onto fields, with the resident sheep often breaking into her garden. This was an early experience of agriculture and Emily knew it wouldn't be her last.

She has never let her non-farming background act as a disadvantage to her progression.

Student notes

Studies at: Harper Adams University

Course: BSc (Hons) Agriculture

Favourite module: Global agriculture production

Ambition: To work her way up the ladder in the poultry sector

Fun fact: Emily set up her own magazine – People in Ag UK – to share the stories of people working in agriculture

Studies

"It was the scientific advances and the opportunity to be a part of something bigger that cemented my interest in farming," says 23-year-old Emily. "With constant changes and advances in the world of agriculture, I knew it would be an exciting, dynamic degree to study."

She's big on encouraging others to get into this world too, taking time to visit her old secondary school each year to get students excited about a career in farming.

Emily says her proudest achievement while at Harper Adams University was being awarded a British Poultry Council scholarship in her second year, which included a year's placement with poultry processor Faccenda Foods.

A keen blogger, Emily decided to take things to the next level by launching her own magazine at the start of this year to celebrate the lives of those working in agriculture.

The thought of juggling the pressures of producing a free quarterly publication with the intense workload of final year studies would make most students wince, but a blend of good time management, late nights and determination made it work. She brands it her biggest success and hopes her readers learn something from the interviewees.

Farm experience

Emily's first taste of life on the farm was TB testing on a work experience placement with a local vet.

"My mum had wanted me to be a vet, so for me the biggest challenge was proving there would be career prospects for me once I graduated," she says.

"Mum was very much of the opinion that farming was restricted to people with farms, and it took me a while to get her to understand that agriculture is about so much more than just farming."

Despite her lack of experience, she got a job on a dairy farm at the age of 17 and progressed to the parlour, milking twice a day at weekends.

## En route to World Routes

Her placement year saw Emily organise and run farm trials, carry out a weekly farm and factory rejects report and formulate action plans with area managers and vets to reduce reject numbers.

"My placement year was probably the highlight of my time at Harper Adams. I was able to take myself out of my comfort zone and learn about something completely new for a whole year," she says.

## Aspirations

On the back of her year in industry she has been offered a graduate role at poultry processor Avara Foods.

In five years she wants to be in a management position at the company, either working as a farm or area manager.

"I would like to work within the poultry industry for a while, but my end goal is to make the switch to agricultural journalism full time," she says.

## The judges liked

Has thrown herself into everything the poultry sector has to offer and built up an impressive knowledge of the sector from a position of little experience

Understands the key flaws in agriculture systems, but has ideas on how things need to change and improve

Has worked hard to create multiple potential careers for herself in the future across several sectors, be it in poultry, agricultural journalism or elsewhere

## What the judges say

"Emily is committed to making agriculture more accessible to a non-farming audience. She has shown herself to be versatile and adaptable and is totally dedicated without compromise."

## Sponsor's message

"Kubota are proud to sponsor the 2018 Farmers Weekly Ag Student of the year award as it recognises the students who are taking up these challenges and who will bring these key skills and attributes into our industry in the near future."

Rob Edwards, business development manager, agriculture for Kubota UK

## JOURNAL : Farmers Weekly

A father of three has died after becoming trapped in a baling machine on his Scottish farm.

Allan MacCallum, 46, was on his croft with two of his sons, Sean, 22, and Bradley, 13, when the incident occurred on Saturday, 18 August, at his property in Tiree, Inner Hebrides.

Sean was on the phone in a caravan when he heard shouting and ran out to his father. He tried to open the back door of the baler but saw oil leaking out, suggesting damage in the mechanism.

See also: Why accidents in agriculture remain stubbornly high

He said: "I tried everything I could and eventually I got the strap on the door and I lifted it right out and my father just dropped."

Emergency services were called but Mr MacCallum was pronounced dead at the scene.

In a statement, Sean said he and his brothers Bradley and Darren, 15, were heartbroken.

A Justgiving page has been set up to show support for Mr MacCallum's family and so far it has raised more than £17,000.

All funds will be shared between Sean, Darren and Bradley and help towards funeral costs.

Inquiries continue

A Police Scotland spokesman said: "Inquiries are ongoing to establish the circumstances surrounding the incident. A report will be submitted to the procurator fiscal and the Health and Safety Executive."

John Dickson, NFU Scotland's regional chairman for Argyll and the Islands, said: "Every loss of life through a tragic accident of this kind has a huge impact, but in a tight-knit island community the feeling of loss goes deeper."

"It is a sad reminder that farming and crofting is dangerous and it is important that everyone living and working in the countryside take the necessary steps to keep themselves, their family and their staff safe while working."

JOURNAL : Farmers Weekly

Tomorrow, the first Saturday in September, is the most important day in the farming calendar: it's time for the Alresford Agricultural Show.

On a gently sloping piece of picture-perfect parkland, 20,000 people from all walks of life will come along to enjoy a day out in the Hampshire countryside, mingling with farmers to enjoy a celebration of rural life. It's like Countryfile Live, but with real farming.

But, for the first time in years, there might be controversy; tucked away in a corner is the cereals competition. A couple of dozen bowls of the very basic farm products from Hampshire's arable farmers, neatly laid out for the judge's keen eye.

See also: Read more of Charlie Flindt's columns

But Messrs C H and H E Flindt will not be entering the pulse competition this year.

This will come as a shock to many, as the Flindts have been cleaning up in the peas 'n' beans category for some years. But this year, we're not growing peas, and only growing spring beans.

And on a damp and humid day in mid-August, too sticky for not-quite-ripe spring barley but perfect for keeping bean pods from shattering, I got stuck into my Fuego.

There wasn't much there – sometimes it was hard to see where I'd actually combined. But the tank slowly ***filled*** with what looked like a bright and even sample. I could see another 'Alresford Show – First Prize' certificate heading for the office wall.

Bad beans

But when it came to unloading, I donned my glasses for a closer inspection as the beans slid away from the cab's rear window. Every single one had a neat little hole in it. Not the usual one or two that make you wonder if they'll go for human consumption; it was the lot.

Mr and Mrs Bruchid Beetle and 20 billion of their closest chums had obviously moved into Roe Hill field and made merry since the last application of insecticide.

It was as even and regular as the sloes my father would spend three hours individually hand pricking in the autumn – and then, utterly predictably, put his back out as he stood up too sharply.

Tod the agronomist and band leader of the Thomas Lord Old Gits was in the band's rehearsal room in one of our sheds, checking out a new amp he'd bought for the band to use at our gig at the Alresford Show.

I rang him and asked for his thoughts. We could have done no more agronomically, he said. It has just been one of those years.

#### Centre stage

I was happy to take his word for it; I know the square root of diddly squat about agronomy, and earlier that day I'd heard of one farmer discing in his crop, rather than waste money combining it.

**Filling** one-and-a-half 10-tonne trailers off 22 acres meant we were one step ahead of that, at least, even if the inspection for human consumption grade will be one of the shortest on record.

So a new name will be on the virtual cups in the pulses category of those much-coveted Alresford Show prizes. And after the Flindts' recent successes, it will be good to have a change.

Of course this will be of no consolation to me, the keyboard player of the Thomas Lord Old Gits, hunched over my Roland piano on stand B52 (how very apt), as we bang out three hours of hits from the 1960s right up to the present day – assuming Tod's new amp works, of course.

Rumour has it we're working on a new song: I've Got Them Holey Bean Blues. Perhaps we should change our name – to the Bruchid Beatles.

#### JOURNAL : Farmers Weekly

Grain prices have come under pressure for a second week but tight UK and world supplies mean there is a limit to how far they can fall.

Harvest pressure and higher than expected UK grain import figures for June brought wheat prices down last week.

Disappointing US export figures pushed Chicago futures down and other markets followed. EU export volumes are also way behind those of last year.

However, a mix of factors means the market is volatile. On the positive side, the further weakening of the pound on hard Brexit speculation has made UK exports competitive into northern continental Europe and to Ireland, limiting the damage for sellers.

See also Business Clinic: How can options help me cut grain price risk?

September ex-farm values averaged £169.65/t as Farmers Weekly went to press on Wednesday (29 August), down by about £2.50/t on the end of the previous week.

The global grain outlook predicts lower output for the second year, with consumption rising to an all-time high, so end of year stock levels will fall significantly.

#### Local factors

However, more local factors may move the market to a greater degree in the short term.

Speculation about the closure of at least one of the two north-eastern bioethanol plants for maintenance has added to market volatility, though neither operator will confirm its plans.

European crop size estimates continue to reduce, with the latest International Grains Council (IGC) report (23 August) estimating the size of the EU grain crop lower by 9m tonnes compared with its previous report and 6.7% lower than last year.

Additionally, the EU's monthly Mars crop monitoring service this week cut its forecast for the EU's 2018 grain maize yield to 7.57t/ha (7.64t last month). The soft wheat yield estimate was cut to 5.70t/ha (5.82t last month).

## En route to World Routes

The German farmers union DBV has once again reduced its expectations for the country's wheat harvest, putting it at about 18.6m tonnes, down 22.8% on 2017 and the lowest crop since 1993. Total German grain production is estimated by DBV at 35.6m tonnes, a 26% cut overall compared with 2017.

Depending on the size and quality of the UK crop, the reduced German supply may raise questions over the origin of UK wheat imports in 2018/19, said the AHDB.

## Global maize outlook

The outlook for global maize production, which competes with wheat in many markets, has improved but the market still looks tight because of rising consumption.

Further nervousness was added recently with speculation that low grain stocks and poor milling quality in the Russian wheat crop would lead to export restrictions.

Subsequently the Russian Ministry of Agriculture confirmed that it was not imposing export restrictions, bringing prices back down.

However, market nerves were jangled by the addition of the rider "for now" to that announcement. Many traders think that Russia cannot sustain its current export rate.

## Grain market factors push market both ways

World grain output down for second year running at 2,063m tonnes (IGC) 1% down on 2016-2017

World wheat harvest estimated down by 42m tonnes to 716m tonnes (IGC)

Global maize stocks at end of current grain year forecast to fall by 41m tonnes to 256m tonnes, just 12 weeks' consumption of maize (IGC)

Uncertainty over likely final harvest sizes

Russia – no export ban "for now"

New peak of 370m tonnes in world trade (IGC)

World total usage of grain predicted at new record of 2,129m tonnes (IGC)

Global grain end of season 66m tonnes lower than last season at 538m tonnes (IGC)

German harvest lowest since 1993/1994

Markets depressed by US-China trade war

Poor EU and US grain export figures

JOURNAL : Farmers Weekly

Seven of the UK's most-loved ice cream brands contain no fresh milk or cream but are legally allowed to call themselves ice cream, according to a Which? investigation.

The consumer watchdog reported that of the 24 brands surveyed, including Ben & Jerry's, Walls and Häagen-Dazs, nine contained no fresh milk and 10 had no cream.

See also: Essentials for marketing the farm's ice cream

In total, seven ice creams from Asda, Ms Molly's, Wall's, Carte D'Or and two different products from both Tesco and Morrisons used neither fresh milk nor cream.

Thirteen of the products surveyed contained both dairy ingredients (see table below).

<https://infogram.com/dairy-ingredients-ice-cream-1hmr6g98yzko4nl?live>

Häagen-Dazs vanilla contained the highest level of dairy products with 39% fresh cream, condensed skimmed milk, sugar, egg yolk and vanilla extract.

What can be called 'Ice Cream'

Products labelled as 'dairy ice cream' must contain at least 5% milk fat, some protein from a dairy source and no vegetable fats.

However, there are no such regulations for a product to be labelled as 'ice cream'.

This means vegan products as well as those using cheaper products such as palm kernel oil, vegetable fats or coconut oil, can use the ice cream label.

In many cases, fresh milk is substituted with reconstituted skimmed milk powder as well as water or buttermilk powder in the case of Tesco's vanilla ice cream.

The rules changed in 2015 with the introduction of the Food Information Regulations, before which products had to contain at least 5% dairy fat and 2.5% milk protein to be defined as ice cream.

The lack of fresh dairy products highlights the scale of the opportunity for UK milk to offset cheaper products if there is a consumer demand for higher quality British ice cream.

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%.

The NFU launched a campaign to promote dairy farmers direct selling real British ice cream this summer called 'From Cone to Cow'.

Consumers can find out where to source authentic British dairy ice cream from the NFU's interactive map which currently lists more than 60 suppliers.

JOURNAL : Farmers Weekly

Spring hand-roguing of blackgrass is helping one Nottinghamshire cereal seed-producing farm to get on top of the troublesome grassweed along with a comprehensive autumn herbicide programme.

Mary and Rob Smithson's 600ha farm in Beckingham, south-east of Doncaster, grows 240ha of winter wheat for seed, so there is a zero-tolerance policy of the grassweed.

"As all the wheat is grown for seed, the farm has a general philosophy of clean crops, and attention to detail in the worst-affected areas is paramount when aiming to eradicate blackgrass," Mrs Smithson tells Farmers Weekly.

See also: Growers urged to cut blackgrass threat by leaving soils alone

Therefore, a solid herbicide programme is applied in the autumn, followed by thorough roguing and spot-spraying in the spring.

Delayed drilling and the farm's combination of cultural and chemical control are reducing blackgrass numbers each year, although there are limitations on the use of glyphosate as a seed producer.



## En route to World Routes

Agronomist Graham Chester works closely with the Smithsons and advises that early control from stacked herbicide chemistry is vital to give good blackgrass control for autumn-sown crops.

## Blackgrass helicopter

Mrs Smithson's husband flies over the crops in a friend's helicopter to assess the weed burden and estimates the area that is infested and so prepares for roguing in the spring.

"Between May-July this year I spent almost 200 hours roguing, achieving virtually total blackgrass elimination, with most samples coming back totally clear of all weed infestation," Mrs Smithson adds.

She hopes that this hard work and determination will have a positive effect on head counts next year and sees this roguing policy as key, especially if regulations tighten on the use of glyphosate in the future.

In one 14ha field, last year's roguing saw the blackgrass-contaminated area fall from 3ha to 0.8ha, and Mrs Smithson says the reward is looking over clean crops and realising the weed burden is depleting each year.

The positive feedback the family team receive from neighbours and seed merchants gives them confidence that their hard work is paying off as they strive for total blackgrass elimination on the farm.

## JOURNAL : Farmers Weekly

Wet changeable weather is frustrating harvest efforts in Scotland not helped by problems with spring barley not threshing easily from the awns.

Areas of spring barley, winter wheat and spring oats are still to cut north of the border, with more reports of grains sprouting in the ear following the weekend rain.

## Scotland

Starting in the North, spring barley harvest is 80% finished with reports of low to average yields, said Simon Barry, chief executive at Highland Grain.

Quality has been reasonable, but maltsters have widened their nitrogen specification after concerns crop quality may fall short of targets.

See also: The 5 top-yielding winter wheat varieties in your region

Although most were managing to meet these new contract criteria, there were big problems with separating the awn from the seed, making handling more difficult, said Mr Barry

"With the dry weather, the crops have raced through their growth stages and the seed hasn't broken off when combining – it's a problem all over Scotland."

## Harvest progress

Spring barley 80% finished in the North

Big problems separating awns from spring barley seed

Wheat sprouting in Northumberland

WoldGrain in Lincs waiting for the last 3,000t of wheat and spring barley

## Scottish Borders

Further south, the unsettled weather has slowed harvest for contractor Stuart Fuller-Shapcott, but he was in the last field of spring barley before heading into wheat and spring oats.

## En route to World Routes

He has cut a small amount of wheat on lighter ground which averaged 6t/ha. "It had really died on its feet, but actually the yield was surprisingly good," said Mr Fuller-Shapcott. Elsewhere, on stronger ground, it has averaged 9t/ha.

However, he has concerns over the further 60ha left to cut as it has started to sprout.

"Spring barley was a miracle this year – very late planted after the Beast from the East and in a matter of weeks it was baked in the sun," he said.

The 60ha of Concerto came in at 15-16% moisture, yielded 6t/ha and had 1.6% nitrogen.

"I was expecting pinched grains and low yields, but it's not been as bad as I thought."

## Northumberland

Near Morpeth, harvest was nearly over with just 6ha of spring barley left to cut for Glen Sanderson at Eshott South Farm, after a successful wheat, oilseed rape and winter barley harvest.

"We're just finishing Laureate which is very pleasing although the nitrogen is a bit high," he said. Yields have reached 7.5t/ha so far.

"We thought the spring barley was going to suffer, but it was a delight to combine."

The Skyfall and Grafton wheat averaged 9.9t/ha. "The wheat was definitely better than normal."

The Alizze oilseed rape was particularly successful for Mr Sanderson this year at 5t/ha. "It's been the best oilseed rape harvest in 48 years," he said.

## Lincolnshire

In Lincolnshire, WoldGrain was waiting for the last 3,000t of wheat and spring barley to come in, according to Dan Murphy, laboratory and haulage manager

Similar to other regions, quality has been good, but with mixed yields. "Some have reported above average yields on heavy land and others have had poor yields," he said.

Anecdotally, pulse yields are down although the firm hadn't seen any samples yet.

The firm had seen problems with red seeds early on in oilseed rape. "The red seeds were not immature, inside the seeds they were normal yellow – they just had a red coating," added Mr Murphy.

## Somerset

Down in Somerset the bulk of harvest is over, with wheat yields closer to 8.6t/ha rather than the 9.8t/ha achieved last year, said John Collins, store manager at Cannington Grain.

Quality wise, there are good specific weights and the crops have been coming in dry so there aren't any problems with moisture, he added.

However, logistics have been a problem for some stores due to so many crops arriving at once.

## JOURNAL : Farmers Weekly

A simplified and less costly form of arbitration is available to help landlords and tenants resolve rent negotiation issues.

Tenants have recently been advised by the Tenant Farmers' Association (TFA) to serve notice so their rents can be reviewed next year once more is known about the implications of Brexit for farm finances.

## En route to World Routes

Fearing they will end up with higher rents or locked in costly arbitration proceedings, tenants are usually reticent about triggering the rent review process.

See also: How to manage a farm succession handover

Arbitration involves both parties submitting evidence about the productive capacity of the farm, with an independent professional nominated by the Royal Institute of Chartered Surveyors (RICS) ruling on what the final amount should be.

However, it is often extremely time-consuming and costly, with both parties often requiring the services of land agents and other professionals to compile supporting documents.

This means the cost of the dispute can often exceed the amount the two parties are disputing, according to Calum Gillhespy, chartered surveyor with GSC Grays.

Although only a small proportion of rent reviews end up in arbitration, it can be devastating for those involved, not only due to the financial cost but because it often causes a severe breakdown in the relationship between tenant and landlord.

### Simplified Arbitration Service

#### How it works

Limits arbitration process cost to £3,000 plus VAT

Costs shared equally between both sides

Decision within 10 days of final meeting

Relies on some goodwill existing and likely to be most successful in dealing with technical points

Mr Gillhespy says the Simplified Arbitration Service, a process launched by RICS in 2016, offers a quicker and less costly alternative for disputes, particularly over smaller amounts of money.

This is where both parties agree to a RICS-nominated independent expert taking a maximum of three days to consider skeleton arguments from both parties and undertaking a site visit.

The expert then is obligated to report back within 10 working days following the meetings, unless both parties agree otherwise.

The streamlined system means costs are capped at £3,000 (plus VAT) and the bill is shared equally by both parties.

TFA chief executive George Dunn said the organisation supported an increased number of disputes being resolved using this process.

However, he warned it was only likely to succeed where a measure of goodwill still existed between the parties and they were only at deadlock over technical points.

### JOURNAL : Farmers Weekly

The four-model Jaguar 800 range now has a new model in the form of the flagship 880, which has the same power as the larger Jaguar 960, but in a compact and cheaper guise.

Details are sketchy at the moment, but it will run the same 15.6-litre Mercedes lump as its smaller siblings and some of the bigger 900 range.

See also: Driver's view: John Deere 8600 self-propelled forager

## En route to World Routes

Claas says this machine has been created to fulfil customers' desire for more power from the 800 models, as they see the contractor-spec 900s as too big and expensive for what they need.

Designed as a long-chop model offering lengths of 9-10mm, the new 880 will have extended service intervals of 800 hours.

Aimed at large farms that do a small bit of contracting on the side, it is going into a five-way slog-fest against JD's 8000-series, Krone's BigX 630, New Holland's FR650 and the Fendt Katana 65.

Prices and availability are yet to be released.

## Updated Lexion

Claas has moved to block companies such as Agra GPS (featured in 6 July issue of Farmers Weekly) from accessing the Canbus system on its latest-generation Lexion combines.

Although the company states that it is pleased to see more terminals coming onto the market to open up the communication channels, the firm prefers to direct its customers through the 365FarmNet data platform, of which it is a major shareholder.

This means that an "unlock" code – costing £1,500 – is no longer available for 2018 Claas Lexion models in Europe, which would have previously allowed access for external companies to transfer yield and other data. Claas says it has done this in order to protect customers' data and prevent the system being infiltrated.

## JOURNAL : Farmers Weekly

More than 93,000t of cheese was exported by the UK in the first half of 2018, up about 18% on this time last year, according to new figures from the AHDB and HMRC.

Though exports of territorials (regional-named cheeses) were down 6%, cheddar and other cheeses were up 19% and 18% respectively.

Increased exports to the EU continue to be the main driver of this growth, with volume following the same pattern.

Exports to Ireland, Denmark and Germany did drop a little between the first and second quarters of the year, but are still notably higher than a year earlier.

<https://infogram.com/uk-cheese-exports-1hmr6g97yido4nl?live>

## Mozzarella multiplies exports

Meanwhile, exports to Spain have been growing since April-June 2017 and had a particular uplift in the second quarter of 2018, up 56% on the first quarter and and 160% higher than the second quarter of last year.

Chris Gooderham, lead dairy analyst at AHDB, said it is mainly mozzarella driving the increase in Spain, and called the growth in home-produced cheddar and mozzarella encouraging.

Mozzarella consumption has been growing for many years, he added, and Britain's largest mozzarella producers, Glanbia and Dairy Partners, are both based in Wales, processing in total about 400m litres of milk/year into this cheese.

See also: AHDB study shows how drought could hit milk production

The increased cheese exports are likely to be a combination of focused export, as well as opportunistic sales, Mr Gooderham explained.

"Milk volumes would have been up when these cheeses were made, so it may be some is driven by excess stocks," he said.

"However, from what we hear, cheese stocks are low in the UK, which suggests this is profitable business that has been chased and won."

Brexit remains risky

Exports to non-EU destinations continue to grow, though not as quickly as those to the EU. With Brexit on the horizon, the export growth is interesting, said Mr Gooderham.

"That suggests that buyers are either confident a deal will be done, or are just buying short-term at the moment," he said.

"But Brexit continues to be a risk to the continual growth in our exports in the future."

In value terms, exports in the first half of 2018 were worth £320m, up 12% on the same period in 2017, but down 2% on the second half of 2017.

This is mainly due to a drop in average prices.

JOURNAL : Farmers Weekly

A no-deal Brexit would ruin livelihoods – and wipe out British organic farming businesses, industry leaders have warned.

Without a deal, organic food exports to the EU will only be allowed once certified by a "UK control body" recognised and approved by Brussels, according the British government.

But UK bodies overseeing the organic sector are not allowed to apply for EU recognition and approval until after the UK leaves the trade bloc on 29 March 2019.

See also: Budget for Brexit in a brave new world of lower subsidies

"Approval can take up to nine months so we are exploring alternative approaches that should speed up this process," says a no-deal Brexit document from Defra.

Organic farming is just one sector covered by 25 no-deal Brexit advice papers published by the government on Thursday (23 August).

Other no-deal advice papers relating to agriculture include documents on farm payments, rural development and developing genetically modified organisms.

The government already guaranteed farm support until the end of the current parliament, even if the UK leaves the EU without a deal – although the form it will take is expected to change.

'Cliff-edge scenario'

Estimates suggest about 10% of the UK's organic output, worth some £2.2bn in 2017, is exported – predominantly to EU countries.

NFU president Minette Batters said a cliff-edge scenario would be disastrous for farm businesses, the economy and society if applied across the wider UK food supply chain.

"While these notices are an essential part of government's plans for preparing for all outcomes, they serve as a sobering reminder of what is at stake for farmers in the event of a no deal.

Ms Batters added: “The technical notice for organic farming is a warning for us on the future of trade of all agri-food products.”

“If all these products were subjected to the same problems in approvals and certification then this could result in effectively a trade embargo on exports to the EU.

“Not only would this be hugely disruptive but it threatens livelihoods and businesses in the UK.”

'Worst possible scenario'

The Soil Association (SA), which is the UK's biggest organic certification body, said a no-deal Brexit was the “worst possible” scenario.

SA head of standards Chris Atkinson said: “Frictionless trade with the EU is critically important for the food and farming sector.

“It's vitally important the UK remains in the customs union and stays aligned with EU standards on food and environment as a minimum.

“A no-deal Brexit is the worst possible scenario.”

Mr Atkinson said the government documents offered no further clarity and provided “neither reassurance nor advice” on how to prepare for a potential no-deal scenario.

'Every eventuality'

He added: “They confirm the scale of the challenge we face and the vital importance the UK achieves a workable deal with the EU.”

Brexit secretary Dominic Raab said he was confident the government would secure a good deal – but it was important the government planned for every eventuality.

In a speech to launch the advice papers, he said: “I am still confident that getting a good deal is – by far – the most likely outcome.”

Defra said it was expecting to negotiate an equivalency arrangement with the EU which would allow the free movement of organic goods between the EU and the UK.

It said it would ask Brussels to discuss these applications in advance of 29 March 2019.

JOURNAL : Farmers Weekly

“So, Mr Smith,” asked the news reporter live on national TV. “How do you respond to the news that it's been proven to a jury in California that glyphosate causes cancer?”

I was tempted to respond somewhat flippantly along the lines of: “In much the same way I reacted when a Californian jury found OJ Simpson not guilty of murder”.

See also: The glyphosate debate explained

But, instead, I calmly reminded the broadcaster that just last year the toxicity and carcinogenicity of glyphosate had been reviewed thoroughly by the scientific experts that sit on the appropriate authorities in Europe and been given a clean bill of health.

For me, the analysis of the eminent scientists who sit on these agencies holds far more sway than the opinion of a randomly chosen, dozen folk whose sole qualification for the task they were given as a jury was that they were citizens of San Francisco.

But it's been clear to me for some while that the ongoing campaign to get glyphosate banned isn't really about science at all, but rather it's about an ideological hatred of GM technology and a politicised dislike of large-scale corporations.

As a farmer, when it comes to glyphosate, it is irrelevant to me who makes the stuff, or how it's used elsewhere in the world for the growing of GM crops. I just want to carry on using glyphosate because I'm satisfied it is safe and it helps me grow crops more efficiently and in a sustainable manner.

If glyphosate was brewed in cauldrons by little old ladies on Cornish cliffs operating as autonomous collectives, then I'd happily still buy it, as long as it remained cost efficient, safe and effective to use.

Furthermore, I don't positively prefer to deal with corporations over individuals or other legal entities, but at the same time I have no prejudice against them either.

A radical dislike of corporations makes little sense to me. It reminds me of a debate I had in a pub about GM crops many years ago with a couple of trendy alternative "lifestylers".

They summed up their views by basically saying they simply didn't trust large American corporations and therefore didn't trust their products. Throughout the conversation, on the bar in front of one of them was a packet of Marlboro cigarettes.

Conversely, I don't buy into the idea that the smaller, less corporate the outfit then the more honest it is to deal with.

I remember many years ago a gang of thick-set looking individuals arrived in our farmyard in an unmarked tipper truck offering to tarmac one of our farm tracks for, what seemed to me, to be an excellent price. Then my father appeared from somewhere to tell this gang in no uncertain terms to get out of his farmyard.

When they were gone, Dad explained I should never, ever deal with people who didn't have a registered office at a permanent address. His main reasoning was that such outfits operated as if they weren't accountable to any laws and, as such, they were not to be trusted.

On reflection you could say such types are the least corporate of anybody you could come across. More fool anyone who thinks that makes them good people to deal with.

JOURNAL : Farmers Weekly

Last month the Welsh government launched perhaps its most important consultation paper since devolution – Brexit and our Land: Securing the Future of Welsh Farming. Having now read through it several times, I'm cautiously optimistic.

Yes, it's a bit long-winded, but show me a political document that isn't and I'll introduce you to a farmer that never complains about the weather.

See also: Welsh farmers face end to direct payments by 2025

Firstly, there's the title, which, unlike the airy-fairy Health and Harmony, which came out from Defra earlier this year, does exactly what it says on the tin.

It's a practical paper that takes extremely seriously the impact that Brexit will have on Welsh agriculture and those of us involved.

It also makes proposals as to how we can not only keep farmers on the land, but also increase productivity and significantly improve our businesses to keep apace with world competition.

Take a drive through vast swathes of our country and there isn't much else there apart from agriculture.

## En route to World Routes

The paper goes to great lengths to acknowledge the multi-faceted role that farmers in Wales play, not only as food producers but also as shapers of our unique landscape and social anchors of rural communities.

The Welsh government is to begin the five-year transition away from the Basic Payments Scheme in 2020, towards two new overarching schemes.

The first, the Economic Resilience Scheme, will provide targeted investment to farmers to support food production. The second, the Public Goods Scheme, will financially reward farmers for the environmental and public goods that we already provide.

Welsh agriculture goes hand-in-hand with tourism, with our world-famous landscape attracting visitors from all over the globe, and farmers have a vitally important part to play in building a bigger and better than ever before “Brand Wales”.

However, perhaps what I'm most pleased about is the acknowledgement of the ridiculous amount of red tape we face as farmers with existing government schemes.

Speaking to our rural affairs secretary, Lesley Griffiths, last week, she clearly stated that if they can't reform the current regulatory burden for the new system, they will have failed. Whether they can do this remains to be seen. It's a sizeable challenge, but we can certainly all get behind the idea.

The consultation lasts for 16 weeks, with a welcome understanding that this time of year is incredibly busy for farmers. I would urge each and every one of you involved in Welsh agriculture that may be reading this to respond individually to the paper if you can.

If you don't agree with any of the proposals, tell them, because they want to know. Similarly, if you have better ideas as to how the new system could work, or are concerned about the lack of volatility measures in the paper, put it in your response.

Wales has a vibrant and greatly diverse agricultural sector, and with the right government support system in place, we could be world leaders.

Whether you voted for Brexit or not doesn't matter any more. It's happening and we now have a chance to help shape a better future for the next generation of Welsh farmers. It's absolutely vital that we make our collective voices heard.

JOURNAL : Farmers Weekly

The sheep sector looks to be moving closer to a "big win" on carcass classification and price reporting rules in England, which will help farmers make more informed marketing decisions, according to the NFU.

Defra recently closed a 12-week consultation on introducing a mandatory standard carcass classification and price reporting system for sheep in England, to improve fairness and price transparency in the supply chain.

If the proposals are given the green light, they will improve transparency about how much farmers are paid and allow a meaningful comparison between different market outlets.

See also: Farming union calls for sheep processor code

At present, this is difficult because companies typically work to their own dressing specification, with some, for example, paying a higher headline price but trimming the carcass harder.

Richard Findlay, NFU livestock board chairman, said he was optimistic that changes were on the way.

The consultation was a very positive step forward on an issue the NFU had been lobbying on for a long time.

“Speaking with industry and government on this, it feels like we are now overall in a similar place,” he said.



"It's great news that Defra are consulting and proactively addressing the transparency issues within the sheep sector."

#### Single dressing specification

The consultation proposes a single dressing specification as well as a requirement to pay to the nearest 100g in weight rather than, as happens with some processors, rounding down to the nearest 500g.

The NFU points out that multiple dressing specifications can cause confusion and misunderstandings and, assuming a base price of £4/kg dw, rounding down to the nearest 500g equates on average to £1 per lamb sold.

In its official response to the government, the NFU said it saw the consultation as a "major step in enhancing a more productive, market-focused sheep industry that realises a fair return from an open and transparent marketplace."

Improving the clarity and transparency of information supplied to producers would help to drive productivity, profitability and product quality.

The NFU also said it supported the proposed change to the EUROP grid system which would see an additional 'S' (superior) confirmation class added for double-muscled carcass types.

However, it added that the industry would need 12 months to adapt to any changes so its introduction should be done over a transitional period.

#### Price reporting

On the issue of price reporting, the union agreed with the government's proposal to make it mandatory for abattoirs to report prices to AHDB on a weekly basis – although it said this should be the case across the industry.

It has also called for the details of all slaughter charges to be publicly available on each processor's website, along with details of any other possible price alterations such as farm assurance or breed-specific deductions or premiums.

"We want to make sure that any charges that affect the overall value of the carcass are fair and equitable," Mr Findlay said.

"We want to see it all in the open so the farmer can make the most informed decision they can about where's best and most suitable to send their stock to."

Wales is currently consulting on similar proposals and a consultation in Scotland has already concluded, opening the way for consistency between the devolved regions.

#### Meat processors say devil in the detail

Nick Allen, chief executive of the British Meat Processors Association (BMPA), which represents many UK abattoirs and other businesses in the meat supply chain said that industry is broadly supportive of the proposed changes, including paying to the nearest 100g of weight.

He said standardising weight and specification data would be possible providing it could be done without making structural changes to mechanised production lines, some of which are operating at speeds of up to 600 animals per hour.

Instead, the BMPA is proposing the industry work with the AHDB to come up with a formula which would standardise the comparison of carcasses accurately between different companies regardless of when offal, such as kidney fat, was removed.

## En route to World Routes

However, Mr Allen warned that requiring more abattoirs to classify according to the grid would increase costs as they would need a person trained in classification present on the slaughter line at all times.

This in practice would mean at least two members of staff would require training in order to provide cover for each other during holidays and sickness.

The consultation document proposes an exemption to mandatory classification for abattoirs slaughtering less than 1,000 sheep each week.

This would cover around 90% of the annual deadweight throughput in England.

JOURNAL : Farmers Weekly

New models and additional variants have extended the choice of pickup trucks for farm and leisure use, as you can see in our full Pickup buyers guide (PDF).

The Mercedes-Benz X-Class is a new range included in our guide for the first time, aimed mainly at folk wanting a high-spec lifestyle vehicle but which can also do a good day's work on- and off-road if needs be – as illustrated by the plastic flooring of the base Pure model.

Tech features include electronic stability, lane keeping, traffic sign recognition and autonomous braking as standard, with trailer stability an option.

See also: Mercedes adds V6 option to X-Class pickup

There is a choice of two power outputs from the 2.3-litre four-cylinder engine and a livelier 258hp from a 3-litre V6 coupled to MB's seven-speed auto 7G-Tronic transmission with lock-up in all gears to bolster power efficiency.

SsangYong's next-generation Musso also makes an appearance, with new bodywork, a slightly longer wheelbase and the ability to tow up to 3,500kg while carrying a little over a tonne in its cargo box.

The 2.2-litre engine has a touch more power and torque and, as with the outgoing model, there is a choice of six-speed manual or auto transmissions with low and high ranges.

Volkswagen has extended its Amarok range with a manual six-speed gearbox option for the Trendline spec.

It's available with a more modest 163hp version of the 3-litre V6 diesel, along with the 204hp version that can also be had with VW's eight-speed auto.

At the other end of the performance scale, a 258hp variant has been introduced to the Highline package, which adds leather, heated front seats, parking sensors and a rear camera to the base spec.

The new Cross specification for Fiat's Fullback adds a combination of style and substance in its "rugged" colour scheme and the practical benefits of a locking rear differential, bed liner and rear parking sensors as part of the standard package.

Off-road specialist Arctic Trucks has obviously impressed both Isuzu and Nissan because both offer more muscular looking variants of their pick-ups with bigger wheels and off-road biased tyres plus other add-ons.

Isuzu's D-Max AT35 also gets uprated suspension, while the Off-Roader AT32 version of Nissan's Navara gets a locking rear axle differential – plus a locking front diff option – a 20mm increase in ride height and steel underbody protection.

Just the thing for checking the sheep up on the high fells.

Read and download the Pickup buyers guide 2018-19 (PDF)

JOURNAL : Farmers Weekly

Police have voiced dismay after every farm vehicle stopped for safety checks was found to be defective.

Officers from East Hertfordshire carried out the roadside checks with Bedfordshire, Cambridgeshire and Hertfordshire roads policing unit on Thursday (23 August).

See also: 7 ways to drive your farm vehicle safely and legally

The aim was to monitor the roadworthiness and condition of agricultural vehicles at a time of year when many tractors and farm implements are on the public highway.

Vehicles stopped were parked at the roadside.

Photos of the operation were tweeted by East Herts Rural Police.

Today we were supported by @roadpoliceBCH on our 2nd OP specifically aimed at monitoring the roadworthiness & conditioning of agricultural vehicle's on the road. Sadly all vehicles stopped had defects of varying severity. @NFUHerts @NFUEastAnglia @FarmersGuardian @FarmersWeekly pic.twitter.com/ZPusg8893A

E Herts Rural Police (@EHertsRrIPolice) August 23, 2018

"Sadly all vehicles stopped had defects of varying severity," said police.

Two of the vehicles had defects that resulted in them being escorted off the carriageway to a nearby field to await the services of a qualified engineer.

"We weren't dealing with badly driven vehicles, we are dealing with badly maintained vehicles," the police added.

The operation met a mixed reaction – with some people welcoming the checks and others suggesting police should focus on catching thieves who steal from farms.

Pleased our roads are being kept safe.

I trust rural diesel and machinery theft, fly tipping on an industrial scale and aggressive hare coursing will get similar well attended timely response when reported.

David White (@RTKfarmer) August 23, 2018

Others were more outspoken.

this is just embarrassing ! All forces have had massive cut backs & this is the 2nd time you have targeted farmers/contractors ! Sort this ot first.....<https://t.co/O7zCdkSjHJ>

Paul (@WPE1965) August 23, 2018

But Hertfordshire farmer Jamie Burrows said critics should consider the bigger picture.

Those who looked at this tweet in isolation or have bad memories this is what @EHertsRrIPolice have dealt with recently. Are we professional industry or not? As for asking why they weren't chasing hare coursers you clearly don't know these guys, they wrote the book on it!! pic.twitter.com/fYmMnGxoCy

Jamie Burrows (@farmerjamieb) August 24, 2018

JOURNAL : Farmers Weekly

As temperatures cool and household beef demand increases, marts are reporting a turn in fortunes in the prime beef market.

## En route to World Routes

Trade took a five- to six-week dip in the heat of July and early August after abattoirs cut 15p/kg off deadweight contracts, seeing values plummet from 371.8p/kg in late June to a bottom of 355.2p/kg six weeks later. The same sort of price drop was seen in the live rings.

Mid-August liveweight averages had already recovered for heifers to about 213p/kg for the weeks ending 11 and 18 August, while steers and bulls had recovered by 50-70% .

See also: Why an EU trade deal could hurt beef prices after Brexit

## The Numbers

7% The drop in prime cattle throughputs through live marts on the year for the weeks ending 4, 12 and 18 August

221.05p/kg Scottish average for 38 steers sold on Monday (27 August)

215.07p/kg All-cattle assured average for 318-head in Scotland last week

## Market Drayton

Trade has recovered at Market Drayton after a summer of “doom and gloom”, and Bernie Hutchinson, managing director at Barbers Auctions, has seen a rally in prices.

“The good trade we saw back in the spring has returned after cattle lost up to 15p-20p/kg through July and early August,” he told Farmers Weekly.

He said a mix of factors had combined to drag prime beef prices down, ranging from school holidays and hot weather limiting demand, to poor grass quality and lack of grazing leading to under-finished cattle.

Best bulls are 200p/kg up at 230p/kg, Friesians are back up to around 160p/kg after dropping to 140p/kg, and the best dairy-bred bulls are back up to 190p/kg mark from 170p/kg last month.

Last week’s (August 22) sale saw 145 bulls average 180p/kg (£1,040.58), 53 steers make 190p/kg (£1,138.80) and a mixed offering of 58 heifers average 202p/kg (£1,074.20).

## Darlington

A period of very limited demand looks to be over at Darlington, according to head auctioneer Andrew Armstrong.

He said the best bulls lost 15p/kg during the worst of the summer lull, but with the new school year starting across the UK, demand is heating up again.

“That’s a drop of £150 a head on strong bulls,” he explained. “Clean cattle were also hit, with a lot of buyers that would have usually bought 20 head, only stretching to buying 10.

“When the summer weather hits us, people say the BBQs will get going, but you don’t have a BBQ day after day – it’s once or twice a month, and generally the younger people, while the over-60s buy ham for salads and such like.”

A large (up 40% on the week) and high-quality showing of bulls sold to 228p/kg five times and £1,812 on Thursday (23 August), with heavy bulls averaging 207p/kg.

Heifer numbers tightened (down 24% on the week) to average 225p/kg, with lighter sorts at 231p/kg. Steers were again over the 200p/kg mark, with a bigger yarding (up 71% on the week) seeing medium steers at 205p/kg.

## JOURNAL : Farmers Weekly

The Agriculture Bill must secure payments for public goods and a fair and transparent supply chain that ensures a level playing field, conservationists have demanded.

## En route to World Routes

The demand was made in a letter to prime minister Theresa May from 55 farming, environment, food and public health interest groups, including the RSPB, Nature Friendly Farming Network, the Wildlife Trusts and the Soil Association.

Though welcoming Mrs May's commitment to developing new farming and land management policies, clarity over whether future farm support will be centred around public goods, such as biodiversity, animal welfare and public access, is still required, said the letter.

See also: Environmental schemes must be open to all and profitable

The new Agriculture Bill, setting out the basics of a post-Brexit food and farming policy for England, is expected to be published by government in early September.

"The Agriculture Bill presents a once in a generation opportunity to secure public goods for society," the letter continued.

"An ambitious Agriculture Bill that works for the environment, public health and animal welfare, and helps create a farming sector fit for the future, will be crucial if we are to meet these challenges in the year ahead."

The groups advised Mrs May that providing this would show she was up to the challenge of securing a healthy, accessible environment and well looked after animals alongside a thriving and self-reliant farming sector.

Such ambition is good for the public, fair to the taxpayer and critical to bolstering farming's resilience in the face of climate change, the groups added.

Crucial for future

Martin Harper, RSPB global conservation director, said: "Getting the regulations and incentives right in a future policy will be crucial for the future of wildlife.

"But it was deeply concerning to hear rumours that the government was thinking of watering down the previous unequivocal focus on payments for public goods.

"This is the opportunity to create a different future for food, farming and wildlife."

A public goods approach across the UK is essential to underpin the credibility of the government's 25-year environment plan, Mr Harper said.

NFU: Homegrown food vital

NFU deputy president Guy Smith said: "The NFU believes Brexit offers opportunities as well as challenges for British farming; key to this is the fact that all decisions, including funding support for those decisions, will be made at home.

"We want to see homegrown food production rightly valued as important Brexit deals are negotiated. If nothing else, the impact of this year's weather has served as a timely reminder we should never take food production for granted."

Mr Smith stressed that farmers must be rewarded for the work they do to protect the environment. But he added: "The balance of supporting nature and providing affordable, quality British food must be achieved to benefit everyone."

JOURNAL : Farmers Weekly

Norfolk-based merchant Saxon Agriculture has bought the Yorkshire grain and seed business Campbell & Penty.

## En route to World Routes

The business will continue to trade locally from a new Tadcaster office, under the Campbell & Penty name, which was established almost 100 years ago and trades about 100,000t of grain a year.

Transactions will be backed by Saxon's UK parent business, Bairds Malt, owned in turn by Australian global grain, malt and oils business GrainCorp.

See also: Big grants on offer to improve farm productivity

"Access to first-hand farm grain in Yorkshire and North East will allow us to now source cereals, oilseeds and pulses directly from growers across all the major English arable regions and thereby better serve our consumer customers," said Saxon grain director, Mark Smith.

Saxon Agriculture was established in 1993 and is based in Swaffham, Norfolk.

JOURNAL : Farmers Weekly

Two Scottish estates in the same ownership are set to merge operations and become significantly smaller as their management team continues to sell off land and farms.

Buccleuch Estates, which manages 105,423ha of land for the Duke of Buccleuch, announced on Thursday (23 August) it is going to merge Bowhill and Eskdale & Liddesdale Estates.

The combined estate will be known as Borders Estate from 1 September.

See also: No farmers bullied during Scots tenancy sales, says watchdog

Borders Estate will be managed by Edward Morris, who was previously estate manager at Bowhill and has been overseeing operations at Eskdale & Liddesdale since early this year.

An estate spokesman said: "There will be no change to our ongoing relationships with our residential and farming tenants, with both our legal agreements and key personnel remaining unchanged under the new Borders Estate umbrella."

Policy of selling

However, the overall footprint of the combined estate will be significantly reduced as Buccleuch progresses its policy of selling land and farms, which will enable investment in new projects.

Property adviser Savills has been engaged by Buccleuch to look at bringing more agricultural land to the market, either as a portfolio or individual units.

Buccleuch also manages Queensberry, Dalkeith and Langholm estates in Scotland and Boughton Estate in Northamptonshire.

Buccleuch has sold 24 farms totalling 12,950ha across its Scottish estates over the past 20 years. Discussions are ongoing with approximately 40 tenants.

John Glen, chief executive of Buccleuch, said: "The shape and scale of Buccleuch's landholdings continues to change and in recent years we have been selling land and properties as we reduce our footprint.

"We have been in discussions with a number of tenant farmers who have expressed an interest in buying their farms and these discussions are continuing."

JOURNAL : Farmers Weekly

Tenant farmers in Scotland are being urged to make use of the amnesty on registering tenants' improvements, to protect themselves during rent reviews and at the end of a tenancy.

## En route to World Routes

The amnesty is one of the provisions of the Land Reform Act (Scotland) 2016 allowing tenants to register past improvements made to the farm so that they become eligible for compensation at “waygo” (the end of an agricultural tenancy).

The amnesty was introduced as it was recognised that too often tenants and landlords were unclear, or unable to evidence, what agreements have been made about improvements or if the appropriate notice was given.

See also: Scottish tenant amnesty – how to take part

This has resulted in difficult disputes when tenancies end, about whether the tenant should be able to claim compensation for improvements they have made.

Tenants can also benefit from registering improvements at rent reviews, as a key principle of the rules are that a tenant should not be expected to pay rent on their own improvements.

### Two years

The amnesty will only be open for three years and one year has already passed.

“With only two years remaining of the amnesty, I urge all tenants to decide as soon as they can whether to use it, or not,” said Bob McIntosh, Scotland’s Tenant Farming Commissioner.

“It can take a bit of time to pull together all the evidence tenants may need to submit through an amnesty notice, so it’s best not to leave it too late.

“The amnesty is a one-off opportunity for tenants to ensure that past improvements are eligible for compensation at waygo.”

NFU Scotland president Andrew McCornick agreed that it was a “use it, or lose it” situation.

“Once it’s gone, it’s gone,” he said.

“I urge all tenants to decide as soon as they can whether the amnesty is appropriate for them.”

Christopher Nicholson, chairman of the Scottish Tenant Farmers Association, said many people on secure tenancies might consider that their tenancies will never come to an end, so the amnesty is not worth bothering about.

“However, although that may be the case, rents are soon to be based on the productive capacity of the holding and identifying tenant’s improvements will be crucial.

“After all, no one wants to be rented on their own improvements.”

### Far and wide

Mr Nicholson said the STFA was advising tenants to cast the net far and wide when making their list of improvements, as the definition of an improvement was broad, referring to “any building or structure affixed to land and any works on, in, over or under land”.

This means as well as buildings, housing, fencing and other obvious items; improvements to land, such as ditches, drainage, removal of stones and other obstacles to cultivation; field boundaries; access improvements; and provision of services should also be included.

“It is better to include too much rather than too little, as there will be no second chances if any improvements are missed,” he said.

## En route to World Routes

The STFA is also stressing to tenants that the amnesty has the backing of the whole of the industry, so no tenant should feel nervous about approaching their landlord on the matter.

The process was meant to be “co-operative and consensual” between both parties, it said.

## Amnesty procedure

The amnesty notice must set out the details of the improvement and why it is fair and equitable for compensation to be payable at termination of the tenancy, even though the correct procedure may not have been followed at the time the improvement was made.

However, the amnesty will not apply where the landlord objected to the original improvement notice or the improvement was carried out in a manner significantly different from the original notice.

Although it is the tenant's responsibility to initiate the amnesty discussion, thereafter landlords and tenants should jointly prepare an agreed list of improvements and both parties should assemble and be prepared to share relevant documents and other evidence.

## JOURNAL : Farmers Weekly

The British sheep industry has reacted angrily to allegations of animal cruelty on 25 farms across England, saying abuse of livestock will not be tolerated.

Sheep farmers have been at pains to point out that undercover footage, which appeared to show shearing contractors abusing sheep, was not representative of the industry.

In a video, released by animal rights group Peta Asia, contractors are seen punching sheep in the face, stamping on them and standing on their heads and necks.

Shearers were also filmed jabbing animals in the face with electric clippers, swearing at and beating sheep. Other sheep had their heads slammed into wooden floors.

One worker was filmed dragging two injured sheep who were unable to walk into a shed, where they were left and eventually died.

More sheep died during shearing from possible shock from the rough handling, or what one farmer called a “heart attack” at a farm near Newcastle-upon-Tyne.

An eyewitness also documented that shearers from two contractors touring 25 farms made large, bloody wounds on the sheep's bodies from fast, rough shearing and the workers stitched gaping wounds up with a needle and thread without administering any pain relief.

According to Donald Maurice Broom, professor of veterinary medicine at the University of Cambridge, sewing up a cut without any anaesthesia is contrary to the recommendations for legal practice by the World Organisation for Animal Health, and other international bodies.

In a joint statement, British Wool, the NFU, National Sheep Association, National Association of Agricultural Contractors, and Farmers' Union of Wales said: “Having not had access to the footage taken by Peta we are unable to comment on this specific claim.

“However, farmers and contractors in the sheep industry take animal welfare very seriously and any behaviour that is found to fall below that standard is not tolerated.”

## RSPCA contacted



## En route to World Routes

A spokeswoman for Peta Asia said all the footage recorded concerned two sheep shearing contractors who were working on farms in five counties – Buckinghamshire, Hertfordshire, Suffolk, Essex and Northumberland – between May and June this year,

Peta Asia has filed a 15-page complaint with the RSPCA and asked it to launch an investigation and, if appropriate, file criminal charges against the workers for alleged violations of laws prohibiting cruelty to animals.

Andrew Butler, of Peta Asia, told Channel 4 News: “I think really the whole industry needs to be held to account here.

“What we are seeing is workers who are paid piece work. They are being paid to shear as many sheep as quickly as they can and, that, of course, results in the sort of injuries that we have seen.

“The industry is really at fault for using that model.”

Peta Asia's video, which contains foul language and scenes some people may find distressing, has been published on YouTube.

## JOURNAL : Farmers Weekly

The effect the proposed Sainsbury's and Asda merger could have on the supply chain will be included in the competition watchdog's formal investigation.

The Competition and Markets Authority (CMA) has been gathering the information needed to start its inquiry since the merger's announcement in April, and the launch was announced on Thursday (23 August).

The first phase will include a detailed assessment into how the deal could lead to less choice, and therefore higher prices or worse quality services, across the range of products sold by both supermarkets.

See also: Industry reacts to Asda-Sainsbury's merger

Crucially for farmers, the CMA will also look at whether the merged company could use its increased buyer power to squeeze suppliers.

## Superpower supermarket

Sainsbury's, the UK's second-biggest food retailer, struck a deal to takeover Walmart-owned Asda four months ago. The merger would create the biggest UK supermarket group in history, with about a 26% share of the groceries market.

The news concerned farm leaders who spoke out against the plan, stating the “rhetoric” of more product for less money for shoppers meant the squeeze on suppliers would only get tighter and prices for suppliers would get lower.

The NFU has raised these concerns, including the potential negative effects on competition and consumer interest, with the CMA, and is pleased to see the investigation begin.

NFU director general Terry Jones said: “The consolidation of retail buying power has been of great concern to our members for many years.

“Suppliers’ ability to innovate and invest could ultimately be impacted if this enlarged business abuses its market power, particularly transferring excessive risk and unexpected costs on to suppliers.

“Ultimately, this will impact on choice and availability for shoppers.”

## Fast-track inquiry

Sainsbury's and Asda have asked the CMA to move more quickly to the in-depth part of the inquiry through a fast-track process, which the authority is expected to accept unless it receives any valid objections.

Andrea Coscelli, chief executive of the CMA, said: "We will carry out a thorough investigation to find out if this merger could lead to higher prices or a worse quality of service for shoppers and will not allow it to go ahead unless any concerns we find are fully dealt with."

The CMA is now inviting views by 31 August on how the merger could affect competition, by post to Sainsbury's/Asda merger team, Competition and Markets Authority, Victoria House, Southampton Row, London, WC1B 4AD or by email to [SainsburysAsda@cma.gov.uk](mailto:SainsburysAsda@cma.gov.uk)

JOURNAL : Farmers Weekly

A vets group is seeking clarity from the government over whether the lamb exported under a new trade deal with Saudi Arabia will be stunned before slaughter.

The British Veterinary Association (BVA) believes that all exported meat should come from animals that have been stunned before slaughter.

The Saudi deal, announced by Defra in February, could be worth up to £25m over five years.

See also: Why halal will be critical for UK meat market

But the BVA says there is ambiguity around the details, which UK halal certification bodies it will involve – and whether the meat that will be exported will come from stun or non-stun sources.

In April, Defra stated that it did not hold data on what percentage of meat from non-stun religious slaughter is exported.

In the UK and Europe all animals must be stunned before slaughter, but there is a derogation for animals killed for religious purposes. In Germany, the law states that produce from non-stun slaughter cannot be exported.

'No compromise'

BVA president John Fishwick said: "We welcome new trade deals that demonstrate the quality of UK agriculture, but we absolutely must not compromise on animal welfare. Animals slaughtered without stunning suffer unnecessary pain at the time of death.

"If non-stun slaughter is permitted under the derogation in the UK it should only be available for local communities and not for export."

The BVA has raised these issues directly with Defra secretary Michael Gove, and asked for clarity on whether meat for export is stunned in accordance with the UK's high animal welfare legislation.

"BVA is calling for an end to all non-stun slaughter, but while it is still permitted we would like to see new laws to ban export of non-stun meat such as those in Germany," added Mr Fishwick.

The only UK scheme approved by the Riyadh-based Gulf Accreditation Centre to certify the exported meat is the Halal Monitoring Committee UK, which does not accept stunning.

Standards 'won't be watered down'

A Defra spokesperson told Farmers Weekly: "Earlier this year, the government announced it had reached an agreement with Saudi Arabia to lift the 20-year ban on lamb exports, which was introduced after the BSE crisis.

"Whilst there are currently no restrictions on exporting non-stun meat, all slaughter – whether stun or non-stun – must strictly comply with EU and UK rules on animal welfare.

"We have been clear these standards will not be watered down as we leave the EU."

#### JOURNAL : Farmers Weekly

Our What's in Your Shed series heads to a 240ha farm bordering the Lincolnshire Wash for a chat about the particulars of Dean Bowd's machinery list and why he has an unwavering love for one particular brand.

We visited the family as they had just started to lift and grade daffodil bulbs, where they revealed a problematic tractor in the fleet that is due for the chop this year and what may replace it.

We also get the lowdown on why Mr Bowd has some rather unwanted competition for the job of combine driver.

Are you brand-loyal?

Massey Ferguson through and through, and have been since the early Massey TVO was introduced in the late 1940s.

I'm the third generation Bowd and, since my grandfather rented the farm from Lincolnshire Council in 1942, red has been the only colour of tractor – even our ride-on lawnmower is an MF.

Favourite dealer?

Our local dealer is Chandlers, which supplies all of our Massey kit plus most of our cultivation machines.

It was formally Boston Tractors and sold machinery to my grandfather, so the guys have got to know us all well over the years and tend to give me some stick when I go in there.

The only other dealer we use is David Harrison Handling for our potato bagging equipment.

See also: Take a trip around the UK with our What's in Your Shed? map

Favourite piece of kit?

Our brace of MF 6480s are particular stand-out tractors – everyone loves to drive them and they are bomb-proof. I'm not quite sure what we will do when they come up for replacement as I reckon MF made an error when it stopped building them.

Farm facts

Bowd Farming Company Ltd, Holbeach Marsh, Lincolnshire

Farmed area - 240ha tenanted Crown Estate land

Crops

Winter wheat 95ha

Winter barley 42ha

Sugar beet 25ha

Potatoes 42ha

Daffodil bulbs 10ha

Peas 26ha

Staff

## En route to World Routes

Dean Bowd, Debbie Bowd, James Bowd, Peter Bowd and Mrs Bowd Senior

Least favourite piece of kit?

That's an easy one – the 2013 Massey Ferguson 7618. It's been a complete nightmare ever since it rolled off the delivery truck (more on this later).

Latest purchase?

A Miedema potato belt planter. The in-cab computer has taken a bit of getting used to, but it's a lovely machine.

We used to lift all our own sugar beet but in recent years have used a contractor.

We've now switched back to lifting again after I bought a Garford V6 Hydro trailed harvester, which I acquired for a very decent price and it's a fantastic piece of machinery.

Oldest machine still working?

The Massey Ferguson 135, which starts on the button every time. The clock stopped working years ago, so who knows how many hours it has clocked up.

It's now used for rowing up daffodil stalks so they don't get hoovered up by the harvester, as well as a few other light duties.

What's your replacement policy?

We don't really have one. Our biggest factor is potato prices – if we have a good year then we'll reinvest in some new machinery.

We aren't scared of running things outside of a warranty period as long as the machine has been fairly trouble-free.

As it's only us that does the driving, we look after them well and my sons have added chrome exhaust stacks and MF stickers to a few of them, although these modifications are pretty lost on me.

Everyday transport

I'm on my second Mitsubishi L200 Warrior in white and I think they are brilliant trucks. My first one was a 2006 model and did 120,000 miles, while the current one is a 2011 model on around 62,000 miles.

Most expensive repair bill?

We were combining wheat a few years ago and had stopped for some in-field tea. I was in a hurry and jumped back in the seat to carry on, but after a couple more bouts our harvest student was frantically flagging me down as there were flames coming from the MF 321's engine bay.

I had enough time to grab my phone and the toolbox before a couple of colourful explosions, the second one being blue as the hydraulic tank exploded and the header fell to the ground.

Luckily, we didn't lose any crop as we were harvesting a couple of minutes from the fire station and they sent three units to put it out.

It was a complete write-off, and the damage was so bad the insurance company couldn't determine the cause.

Chandlers was brilliant and hired us a Massey 7278 to finish harvest, which I liked so much I bought, although unfortunately the insurance didn't pay old for new.

So, what's the problem with the 7618, then?

## En route to World Routes

Where to start? It was one of the early models off the production line and we are now on warranty claim 46 since it arrived new in 2013. The first claim went in on day three of ownership, which was a faulty AdBlue system.

Some have been small such as work lights blowing fuses, others have been rather large and expensive, and the most spectacular was the PTO clutch welding itself together.

When the engineers took it out, which was a sizable job in itself, it had turned a shade of blue due to the heat and they couldn't get it apart. I bought it to power the potato harvester but we deemed it too unreliable for the job.

We took out extended warranty due to the issues we had with the tractor, which proved to be a sound decision. We now also have to keep a selection of 7.5amp fuses in the cab as they blow on such a regular basis.

It's frustrating as, when the tractor is running well, it's a lovely machine to drive and there are other 7618s in the area that have been near-faultless.

It ran out of warranty in March and we are going to chop it in later this year, but the issues haven't tempted me to switch brand.

Do you buy second-hand?

My father only had one new tractor in his career, which was the MF 6150 we still own. I have always tended to buy new as I like to know where I am with warranties and reliability.

We would probably only buy second-hand in an emergency and it would have to be the right machine.

Next on the wish list?

With the varied workload, we need three reliable front-line tractors, so a replacement for the troublesome 7618 is top of the agenda.

We had a demo of a 200hp MF 6718 four-cylinder earlier this year and it made light work of our five-furrow Dowdswell plough and could easily cope with more.

My eldest son James is very friendly with the local Lemken dealer and keeps badgering me for a new plough and drill, but he still hasn't told me how he is planning to pay for them yet.

Our Team trailed sprayer could also do with an upgrade, so we'll see how well the potatoes sell.

Favourite job?

I'm addicted to farming and don't really have a favourite job as I like everything we do.

However, with James now 21 years old I'd better say combining, as he will be more than happy to kick me out of that seat if I'm not careful.

Biggest machinery bargain?

Has to be the Garford beet harvester, although I'm not sure Phillip Garford would thank me for the business.

Any classics?

The oldest machine we own is a 1965 MF 35, which was bought new by my grandfather and I bought it from his retirement sale. It is now in charge of equestrian duties and in the care of my wife, Debbie.

In the shed

Combine

## En route to World Routes

MF Cerea 7278

Tractors

'13 MF 7618 – 4,000hrs

'61 MF 6480 – 4,000hrs

'08 MF 6480 – 7,200hrs

'96 MF 6170 – 6,000hrs

'95 MF 6150 – 6,000hrs

'77 MF 590 – 9,800hrs

'76 MF 135 – unknown hours

'64 MF 35 – unknown hours

Telehandler

'03 MF 8937

Potato and beet kit

Garford V6 hydro trailed beet harvester

Standen T2 potato harvester

Medima belt potato planter

Grimme topper

Tong 6F grader

Tong box pizen

Cultivation and drill kit

Dowdswell 5 furrow plough

Spalding flatlift

Kuhn combination drill

Sprayer

Team leader trailed 3,000-litre, 24m

JOURNAL : Farmers Weekly

UK wholesale dairy prices increased in August, supported by demand from the continent, which saw markets pick up.

This demand seemed to be driven by weather affecting key EU producing member states and good weather now could see milk production pick up towards the end of 2018, according to AHDB Dairy.

## En route to World Routes

However, the levy board said there is concern that milk production will falter towards the end of the year due to uneconomic feed costs, as many farmers are using this year's winter feed, and this uncertainty has traders on a knife edge.

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

The demand from the continent has been influencing UK cream prices the most, up 4% on July at an average price of £2,230/tonne. Exports have also risen, due to concerns over key EU milk producing nations being impacted by hot, dry conditions.

Trade has been fairly quiet for butter with average prices only really rising as a reaction to cream, rather than a specific butter market factor. The price has also risen by 4% on July, to £5,080/tonne.

<https://infogram.com/uk-wholesale-prices-table-1h984w8vnzrd4p3?live>

The mild cheddar market saw no change, remaining stable at £3,050/tonne, with little activity taking place across the month.

With stocks plentiful, sellers are generally in no rush to sell, and buyers are also in no hurry, says AHDB Dairy.

<https://infogram.com/uk-wholesale-prices-1h984w8vnnv1d4p3?live>

#### Dairy market indicators

The actual milk price equivalent (AMPE) increased by 4.3% from July's figures to 33.18p/litre.

The milk for cheese value equivalent (MCVE) increased by 0.7% from July's figures to 33.62p/litre.

AMPE and MCVE track butter and milk powder, and cheese and whey values respectively and indicate what these commodities are worth to processors after processing but before transport costs.

#### Milk industry

The price rises follow Arla's decision to hold its milk price for September as the industry waits to see the final impact of the drought on European milk volumes.

Arla's standard manufacturing litre with a constituent content of 4.2% butterfat and 3.4% protein will remain at 31.38p/litre through next month.

Muller is expected to announce its milk price for September at the end of this week.

Meanwhile, the Global Dairy Trade (GDT) index, an indicator of international dairy market sentiment, added to its three-month slump on 21 August, dropping by 3.6%.

Prices averaged US\$3,044/t (£2,357) as all but one of the products offered tumbled in value across the auction, which fell for the ninth time in the past 12 auctions.

The biggest falls were reserved for butter and cheese, dropping by 8.5% and 4.7% to average US\$4,392/t (£3,401) and US\$3,484/t (£2,698) respectively.

#### Dairy market analysis from Peter Meehan, INTL FCStone

Volatility remained high in the global dairy markets over the past week. While European spot skim milk powder (SMP) and butter prices edged higher again last week, futures' price activity was somewhat more mixed as more favourable weather conditions prevail across much of Europe and concerns over milk supplies ease.

## En route to World Routes

On the spot market, European SMP gained a further 4% last week, climbing to £1,457/t. European spot butter prices saw more moderate gains, increasing by 0.5% to £4,990/t.

On the futures markets, things have been more mixed with EEX butter futures' September to March contracts down sharply, falling by 5.6%. SMP futures meanwhile saw October-December move down by 1% and January-March up 0.9%.

Despite the modest milk production numbers for July coming out of the Netherlands (-1.2%) and the US (+0.4%) over the past week and very strong export numbers out of New Zealand for July, futures' prices struggled to find support.

Last week's GDT auction also did little to support market prices as it saw its fifth move lower in six events and 10th move lower in the last 13 events with the overall index dropping by 3.6%. Fats, in the form of butter and AMF drove the decline.

## JOURNAL : Farmers Weekly

Beef finisher Paddy Murphy erected an unroofed unit at his farm in County Wexford four years ago to replace a badly performing woodchip pad.

The cost of woodchip was rising and it was a challenge to dispose of the soiled material, so Mr Murphy decided to replace the pad with a roofless, slatted unit.

The cattle performed so well in the unit a second, duplicate was built last year, with each shed holding up to 120 animals. This has meant cattle previously housed in rented sheds could be kept on-farm.

"We have been renting sheds on other farms but our aim is to eventually have everything here on the farm because it would be easier from a management point of view," Mr Murphy explains.

See also: Business Clinic: How much to rent a cattle finishing building?

<https://infogram.com/roofless-shed-1hnq411kpoep43z?live>

## Erecting the new sheds

The pad was removed and replaced with a 2.7m deep slatted tank enclosed by three 8ft-high walls; a feed passage was already in place and this formed the fourth barrier.

"We struggled to get the pad draining properly in certain weather conditions even though we had constructed it correctly with drains and stone," explains Mr Murphy, who farms with his wife, Bridget, and their children, Padraic and Sinead.

Each unit is split into three pens to allow different groups of cattle to be kept separately.

One of the most important considerations was to provide shelter for cattle from the wind which the walls and the sheltered position of the unit offer.

The units were built in a sheltered part of the farmyard to avoid cattle huddling together during bouts of bad weather instead of lying down, which would have risked foot problems and other animal health issues.

Mr Murphy also insisted on the feed passage being covered as he believes this is integral to the system functioning at its optimum.

"Some farmers don't cover the feeding area but I think it is important cattle are sheltered when they are eating because it encourages them to eat more," he says.

The trough is covered with sheets of 10ft-long metal cladding which overhang the troughs.



## Farm facts

120ha farmed

Cattle fed a ration of silage, grain and also sugar beet or fodder beet which are grown on contract

Cattle are sourced direct from farms and markets at all ages and finished by 30 months

Mostly continental and early maturing breeds and some Friesians

Cattle vaccinated for infectious bovine rhinotracheitis

## Slats and space

The dimensions of the unit provide 2.75sq m of accommodation per animal – well within regulations in Ireland which dictate that stocking rates for slatted housing must be no less than 2sq m.

The slats are covered with rubber mats, another feature which Mr Murphy regards as essential.

"Cattle don't mind what is coming down on top of them once they have comfort beneath them and they are protected from draughts," says Mr Murphy.

"The cold doesn't bother them. They will lay closer together when the weather is colder as was the case last spring and their coats also grow thicker in the winter as a reaction to being outdoors."

## Benefits

Had the Murphys roofed the units it would have added about 16,000 (£14,400) to the cost of each.

Savings are made on the maintenance of gutters and downpipes associated with buildings and there is also a useful reduction in the time spent treating stock for disease.

However, the Murphys had to spend an additional 7,288 (£6,563) per unit on extra slurry storage capacity to accommodate the annual rainfall of 1,000mm.

They need sufficient storage for 16 weeks to comply with nitrate vulnerable zone regulations in Wexford – they have 33,000 gallons of additional capacity per unit to allow for the additional rainfall on an unroofed structure.

Additional rainwater collected from roofless accommodation can increase slurry requirements by more than 20% but Mr Murphy says this additional water has allowed him to make better use of the slurry.

But Mr Murphy admits the cost saving of 8743 (£7,837), when taking into account the additional slurry requirements, wasn't the reason why he opted for this design – animal health and performance was the ultimate determining factor.

"The first thing I considered was health not cost. We knew of other farmers with this design and they were very happy with how the cattle were performing," he says.

Mr Murphy buys cattle from different sources. He says one of the biggest health risks of doing this and then housing them in a mixed air space is pneumonia, but the topless building combats this problem, he adds.

"The cattle have fewer coughs and runny noses than those in our enclosed sheds and not only is this good for performance but, because they are less likely to develop respiratory infections or pneumonia, we spend less on treatment costs."

## Animal performance

Performance has been good too. "We have monitored some cattle and have had some very good gains.

## En route to World Routes

"We don't find that they eat any more outdoors than they would indoors, the cattle get the same ration whether they are outside or inside.

"If the weather is very cold we might increase the feed slightly but that would also be the case for the cattle indoors."

Although people are exposed to the weather when they are managing the cattle in the units Mr Murphy says this is not an issue. "It is no different to having an outdoor system and it can be more enjoyable to work in an outdoor environment than in an enclosed shed."

## Future

There are an assortment of buildings at Knockbay Livestock but Mr Murphy believes the unroofed sheds outstrip the rest.

Other housing on the farm includes three covered slatted sheds, one of which was built in the 1970s and has a low roof which results in poor ventilation.

Mr Murphy says he plans to gradually replace each of these with unroofed accommodation.

"They suit our system and, with cattle healthier and performing well, they are the way forward for us."

## JOURNAL : Farmers Weekly

While other crops have suffered this season due to the hot and dry conditions, Soya has had no such problems. Its aptness for drought means growers looking to lessen the risk of dry conditions might want to consider it in their rotation.

Soya's ability to cope with droughty conditions such as those experienced this season are expected to help push up the area grown to almost 5,000ha next year.

With bean and pea crops yielding poorly in the hot and dry weather, seed group Soya UK expects the healthier gross margin available with soya, even in a bad year, to convince many growers to swap.

In a good season British soya crops are expected to yield around 2.5t/ha, but due to the adverse conditions this is likely to be down slightly.

The stems and leaves of soya plants are covered in hundreds of tiny hairs, which reduces evaporation and makes them ideally suited to drought conditions.

"Soya has loved the sun. I have seen some crops that will do 2.5t/ha this year," says David McNaughton, managing director of Soya UK.

"Ironically, the thing that hurts the crops was the wet before the dry period. Where we are seeing poor crops, it is where the seed-beds were bad and wet."

Soya does not like compaction, and will also not germinate well if drilled too deep, especially on heavy ground.

Prices for UK-produced Hard IP (full non-GM traceability) soya have also been buoyed by the introduction of Chinese tariffs on imports of any origin soya.

This positive outlook means demand is outstripping supply and Soya UK would like to expand the British soya area well beyond next year's 5,000ha.

"I would like to have 8,000ha next year; the market wants it so I will buy it. Major soya producers have had a car crash this year, but UK soya beans could well rise over £400/t," said Mr McNaughton.

## Seed-bed preparation

Jamie Clark from Maidstone in Kent is growing 69ha on a seed contract at Boughton Place, Sandway, for the first time after the price for marrowfat peas dropped to uneconomical levels.

Only 7.6cm of rain fell on his farm in June and July, but despite this, he says the crop never wilted or looked stressed even on the hottest days.

Last autumn after the straw was baled it was sprayed off in mid-October and sub-soiled as deep as was possible.

On the heavy Wealden clay it was too wet in early April to drill the crop after the weeds were sprayed off, so drilling didn't take place until 25 April. However, this was followed by 7.6cm of rain on 30 April.

"The rain created some problems on the heavier ground as it capped it like concrete. I didn't think it was going to come through, but it did except for on the headland," Mr Clark says.

"My only problem with it is that it sets too many pods low down on the plant so we are going to have high losses."

Mr McNaughton says losses from low-set pods can be an issue for growers, but can be minimised by good seed-bed preparation to allow the header to get down as low as possible to "scalp" the crop.

Achieving the target plant population of 50-60 plants/sq m will also encourage taller plants and higher-set pods, as soya is inclined to compensate and **fill** out the space by producing short and bushy plants if the target isn't achieved.

Mr Clark is likely to combine the crop in the first week of September after it started to senesce two weeks early, which is expected to affect yields. Despite this, he still plans to continue with the crop next year.

## New chemistry

### Dahlia bean fly

Soya growers gained a new weapon in the battle against pests this year with the issuing of an extension of authorisation for minor use (EAMU) for the pyrethroid Lambdastar (lambda-cyhalothrin).

Lambdastar is the only option available for soya growers for controlling dahlia bean seed fly, which alongside pigeons is the biggest threat to crops and can reduce yields by a third.

Soya UK says that applying Lambdastar as close to emergence as possible is essential, and at £0.80/ha will not affect gross margins.

## Pre-emergence

Options for pre-emergence herbicides are Stomp (pendimethalin) plus Gammit (clomazone), Nirvana (imazamox + pendimethalin).

However for this season, Artist (flufenacet + metribuzin) has been given an EAMU, giving growers three options for grassweed control next season.

## Post-emergence

Growers now have two graminicides options to tackle grassweeds; both Fusillade Max (fluazifop) and Laser (cycloxydim) have secured EAMUs, while an EAMU for Centaurian Max (clethodim) should be in place ready for the 2019 season.

## Innoculants

## En route to World Routes

The nitrogen-fixing rhizobium bacteria for soya is not native to the UK so Soya UK seed is pre-inoculated with three types of bacteria. From next season, this will be increased to four following trials this year.

JOURNAL : Farmers Weekly

This year's harvest has been a strange one. The drought meant that the barns didn't quite fill up but the lack of rain certainly made planning easier.

Last year I was constantly testing the moisture of the crops but this time I was more concerned about them drying out too much.

In my last column I wrote about the precautions we were taking in case a fire broke out and this proved to be a good decision.

See also: More Will's Way farming columns

Shortly after finishing the headlands on a field of rye, we had to deal with a potentially dangerous situation.

I think the combine must have caught a flint and set fire to some chopped straw, and it started to spread fairly quickly.

Luckily the wind was blowing away from the crop and the extra extinguishers we'd bought did an excellent job of putting out the blaze, but it was a close call.

Harvest emergency

I was back at the farm at the time, but rushed down there with a set of discs and some extra extinguishers, just in case we needed them.

By the time I arrived the situation was under control, but if the wind had been blowing the other way we could have lost most of the crop.

I'd seen pictures that other farmers had shared on Twitter of entire fields razed to the ground, so I was relieved that we didn't have to go through that.

Of course up until 1993 farmers used to purposely set stubbles alight as a way of controlling weeds, but it was banned because of environmental and safety concerns.

There's little doubt that if we were still allowed to do it, then blackgrass wouldn't be such a big a problem, but I can certainly understand why it was stopped.

I'm sure if glyphosate ever ends up being banned there will be calls to bring back burning, but I can't ever imagine any UK government agreeing to it.

Weed wars

Speaking of blackgrass and other unwanted plants, I'm hoping that we'll have fewer of them on our farm this year.

We've spent quite a lot of time discing fields to try to chit as many seeds as possible.

The theory is that once they've been sprayed off and killed we can Sumo the land and drill into a relatively sterile seedbed. That's the plan, but we'll have to wait a while to see if it works.

Away from land work, I've been busy checking on our harvested crops. As many of you will know, it's really important to keep an eye on the temperature and moisture content once they've been put in the barn.

Last year the wet conditions caused us a few problems but this year everything has gone in fairly dry. I'm hoping this will make storing them easier, but I'll keep checking them just in case there are any issues.

## En route to World Routes

In terms of yields, our winter wheat was down on last year and the less said about the spring wheat the better, but our rye and winter barley was actually better than in 2017.

I'm sure the next 12 months won't be easy as we battle the elements once again, but I'm actually looking forward to it. I must be mad.

JOURNAL : Farmers Weekly

A 45-year-old Wiltshire farmer says his cancer diagnosis is the driving force behind the "extremely difficult decision" to sell the family's arable farm.

Anthony Snook doesn't want to sell Lavington Farms, where he has lived all his life, but says it's the only option he can see in order to secure a future for his wife, two children and parents.

"My cancer is incurable, albeit manageable," he told Farmers Weekly.

See also: Video: Estate comes to market as family leaves farming after 70 years

"But I can't carry on the way I'm going, so selling seems to be the only way to secure my family's immediate future in the event of me not being able to work.

"My children (14 and 11) aren't old enough to go farming and I don't want the pressure being put on my wife."

For the past five years cultivations have been contracted out, with Anthony responsible for the rest of the operation, alongside his full-time job helping to run an ATV business.

The 809-acre enterprise in the Vale of Pewsey comes with two semi-detached houses and a grain store and is being launched this week at a guide price of £8m as a whole, or in three lots.

The Grade 1 and Grade 2 chalk soils have been put to a winter wheat, winter barley and oilseed rape rotation.

"Yields can touch 5t/acre for wheat and 4t/acre for winter barley," Anthony said.

"Last year our crop of Graham made milling quality but normally we grow for feed."

It is divided into three blocks, the largest of which is 300 acres and comes equipped with an 800t grain store.

"If I hadn't had my diagnosis I was ready to invest in a 1,000t grain store so we had more storage for barley and wheat. In the past we have missed out on the higher prices by not being able to store more."

Anthony said his wish is that a buyer can be found to take the farm as a whole and the existing contractor to remain in place.

"I don't think the land needs to be split up," he said. "The contractor is keen to continue and has always farmed to an incredibly high standard.

"We are ready to plant next year's crops and have all the inputs – everything is in place to carry on as we are, and we will see what happens."

Stamp duty saving

Selling agent Woolley & Wallis said the sale is unusual because buyers are being offered Lavington Farms as a limited company, which carries a significant stamp duty saving.

In this case, a sale at the £8m guide price would mean £40,000 is due, rather than £400,000.

The firm said the number of farmers who trade as a limited company has declined because of a relatively benign tax regime for partnerships and individuals.

Partner Richard Nocton said: "Normally stamp duty would be charged at 5% but in the case of selling a company it is at the much lower rate of 0.5%."

The Wiltshire market

Mr Nocton feels there is interest in farmland at all scales in the Vale of Pewsey; an area where supply is traditionally slim.

But he said there could be added appeal because the bulk of the value is in the farmland, not the residential element of the sale.

"Buyers are likely to come from some distance to find a farm of this quality and great potential," he said.

"The crop yields are excellent, the farm is clean and buyers will really chase a farm of this ilk."

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