Okay.

And then.

So. It looks like a lot of questions, but you can do very, very short answers completely up to you and of course..

So, can you think of any farming application you might see being solved by robotics?

That's a bit of a general question, not necessarily about sheep, but any product. Any farming application that could be solved by robotics.

Right.

I think the observation of birth, you know, when having the.

We've already used that sort of temperature.

So we're still we've watching the shoot.

Really?

Really?

Oh, that's.

Yeah. Main area for us.

Because we're breeders.

Yeah.

So .

You need to.

Yeah, not on the farm.

So we do need that.

Is it intelligent, this observation, or is it basically.

Yeah, we absolutely we can do?

Yeah.

I's going on.

Okay.

And you can go around any of your sheep and see when it's.

Yeah. .

I do.

Okay.

Any sort of physical interaction that you can think of? .

I think if there was something that could tell you whether there was problems.

Yeah, like monitoring saliva and that kind of stuff. Would be useful.

Do you do that manually?

Yeah, we do.

Yeah, we do. .

We tend to segment anything, if's that problem in the year previous, we keep obviously, we keep it until another year.

So there's that observation that that year period is quite good.

Yeah, so it builds knowledge and intelligence.

The other thing is as well, in the feeding side, also, it is it's handed to monitoring what the very're eating because not all of the meat is straight away.

So you get you, not eating to eat.

Or they get excluded from the food, like being at school.

Yeah. Sort of thing.

Yeah.

Okay.

And I think also readers and we do use it just put the drain occasionally, just the observation of them getting stuck in fences and things.

Because we've got 1,600 acres to so we don't, but we don't actually use it.

The far loses it and we lease it to the main game.

Yeah. We keep saying about 30 to 58 of to put in.

So it's important to make sure they're not stuck in the faces and food.

So we do put a drone occasions.

And is it an automterated drone?

It's an automated. Just come to he's got his own business business.

Okay.

So he comes up and just puts a dr accus.

Yeah.

And just zooms around.

Just check.

Because by it just .

You know not.

So that's another observation that if you could do that, if you could see if they're, yeah.

Yeah, because it is that was quite important because obviously the time you get down with your dog, to see if we' somewhere else, as with a drone that can actually observe closely.

Yeah.

Yes, that's right.

And also, you know, maybe a dog at ground level would be able to.

Well, you can remember also some grass.

A dog doesn't actually see a lot and cig, you know, and a low of haymaking. , yeah.

We do a lot of haymaker, we put the sheep into tab now.

So it is important trade, you know, fancy them rather than .

In my opinion, that's.

No, that's really, really insightful, thank you.

Okay, so the other one is, are there any applications you would like to see solved by robotics?

Well, actually, I think we'vem. Meaning much covered there.

What is the hardest part of herding sheep?

Well, it's obviously getting together.

Yeah.

You're talking sheep now, they don't do that, do they?

Yeah, he's trying to get them through, you know, their gate.

Yeah.

But obviously food is probably the best way of doing it.

Because if I shout, hey, come on, you're a lot.

And they will definitely come.

It doesn't matter what kind of threat. They'll come.

So it's important to get them into a place where we want them today.

Yeah.

Okay.

And sometimes a dog isn't the best thing because of the meat it is.

So again, the drones is hand handed there to see if black stragg around or We don't move very often between field to field, where we could lose them.

You know, our fields are all into Roman, if you.

Right, yeah..

Oh, I see.

You rotate around like a carrousel..

As soon as you get through. Far to probably 10 miles.

Oh, yeah, yeah.

I talked to somebody else and said that that could be a problem, so the robot would have to come with you.

And you'd have to get on the quad bike. .

Yeah, brilliant.

Okay.

What aspects of herding would you automate?

Oh, yes, yes, I need to.

Yeah, thanks.

Sorry, it's it's just a consensus.ent form.

I's doing it.

I'll do it afterwards.

So what was the question?

What aspect of herding would you automate?

Again, it seems like it's being answered, but..

Yeah, we see it's the controller, isn't it?

Yeah.

The timely control. Obviously remember one that we do lead the in snow.

So the answer to bringing them in because of the conditions, which is obviously.

Yeah, yeah.

I't say they were being a sort of like an Indian.

I forecast today.

What's three or four inches in.

So it's hand some kind of man, you can actually say, yes, in that field there.

Okay.

Because supernatural, they actually protect themselves. Go to hedge.

And you can .

Right.

Okay.

So a robotic dog that could just go off and maybe herd them who would be..

Oh, okay. A bit of a more.

Like a whistle like the makes what we do.

Right.

Which is normally a whistle.

Yes. They know know that you can talk about if you start whistling.

It's interesting.

Somebody else mentioned this, that if you could have a speaker on the robot dog, so initially while you're training you..

Normal dog.

Yeah.

It was mirroring what you were doing..

I think yeah.

You don't get the sheep.

They know what a dog does.

Yeah.

And you'll always get around or have a go.

Right.

He's protecting, isn't he?

His flock.

He'll have a go for us.

And if he just just.

Really?

Amazing.

Amazing.

Okay, that's great.

Okay, I'm trying not to.

Because the green ones were replacements for other questions because they weren't so good.

Are there any safety aspects of sheep herding that could be improved, e.g. Sheep getting stuck or injured? , there is a big market.

Right, okay..

So it's not about herding, necessarily.

It's about monitoring. Monitoring. ?

Yeah.

Yeah.

So you.

Just bit a little tag or something.

A little tag, yeah.

Yeah.

I don't know what the cost that would be, but if that was sort of. Leaking with .

That sounds like the lower cost end.

It is.

The actual robot itself.

It's obviously the most important.

I mean, the one that we've got is £80,000, yeah.

You got a few sheeps.

Yeah, well, and a few sheepdogs, yes.

What qualities make a good working dog in herding?

Oh, hang on, no sound detected.

Sorry.

What quality, let me read that again.

What qualities make a good working dog in herding?

How might a robot replicate or fail to replicate? ?

Yeah, yeah.

I think?

Mimicking.

Yeah.imicking the dog, and so you'd have to find out first box of Yeah.

Yeah, yeah.

Anything about energy, I mean, I don't want to lead you, but, I mean, how much energy does a dog have a normal, a lot?

So they just keep going and just keep going.

I mean you do lay them down .

Yeah.

Right.

They're quite...

Right. .

Yeah.

And these dogs, how long does it take to train them to do that?

Well, .

There's.

Right.

Okay.

Yeah.

So reliability.

I' got one on the farm Yeah. Just takes the young.

Yeah.

Okay, this is an well, maybe an interesting question.

Would such a system of like a robotic sheepdog system or monitoring system or whatever, save time or introduce new complications?

On our thought, they would say in some it would be to do.

As I said earlier, the .

Yes.

So we few.

Yeah.

So it's not a big problem my friends .

Oh, yeah.

Okay, right, because they are all interlinked.

They're all interlinked. They're using. Cage ways.

They're using roads.

They go crossroads.

Yeah.

We only have one small road and that's outside the So it could be horses for horses all of this kind of thing.

Yeah, I think it could be, yeah.

Yeah.

Okay, we're nearly there.

You'll being very impatient as well.

If a robot dog had no limit, what would you want it to do that a real dog can't?

Observe.

Yeah, just observe more than anything.

And capture him in.ure it.

So if you can imagine sitting there having our dinner, that you know ..

Yeah.

And feeding maybe that back to an app or something.

See, we have quite a lot of Yeah...

Oh, really?

That.

Yeah.

He's of garden behaviour as well.

Yeah, we do have a lot of deer.

Yeah.

And It's just man of activity. Making sure they say.

And also, of course, obviously, we' pinching.

We've had quite a few taken over years.

And you just know it after they just counts every now and again.

Yeah.

But if there was a dog monitoring heartbeats and things like that, you would admit know, you would have your count all the time because you'd say, oh, the tag is giving a heartbeat.

The robot dog is monitoring that.

It is important nothing, that.

Okay, this is really handy.

Okay. Final question.

Would you consider a robot dog a pet or just a tool?

Little tool with a tool?

Yeah.

Well, who knows knows?

I mean, with AI and everything and learning and kind of bonding, maybe maybe some farmers might be, you know, it's quite a low job for some do.

Yeah, yeah, and so it could be a problem if you replaced your dog with a .

Yeah.

Yeah.

I imagine.

Yeah.

Well, it's for any of us.

Yeah.

Do you know, this has been a real pleasure.

No.

Thank you so much.

Let me just stop the thing.

I just just want to see if it's still recording.

It's very odd.

It's not picking up much, but I think that maybe it's because of all the background.

Was this transcription useful or not useful?