# Scotland YOUR BIANNUAL AHDB UPDATE



Spring/Summer 2019

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# E Arable Scotland

# Tuesday 2 July 2019

**Balruddery Farm** James Hutton Institute Dundee, DD2 5LJ

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😏 #arablescotland

A brand-new event for Scotland where innovation, science and practice meet to raise the efficiency and sustainability of Scottish arable production. The event will promote the quality and profile of Scottish produce and strengthen networks between innovators, producers, support industries and end markets.

A partnership of James Hutton Institute, SRUC and AHDB with support from SEFARI, FAS and The Scottish Farmer.

### For more information visit: arablescotland.org.uk

The James Hutton Institute













Paul Flanagan Scotland Director & Sector Strategy Director – Dairy

# Welcome

At the time of writing, we were still weeks away from our official exit date from the EU. Where we are now, when you are reading this, is impossible to predict. Will we have delayed Article 50? Got ourselves a deal? Or be facing a no-deal scenario?

Whatever the outcome, AHDB is committed to supporting farmers. We have a huge amount of Brexit-related tools and resources on our Brexit hub (ahdb.org.uk/brexit), from our Brexit impact calculator to our resilience checklist. You can submit your own Brexit queries to our experts, as well as accessing all our Horizon reports.

One of our most recent reports looked at the characteristics of those farms classed as the top 25% in terms of performance. I highly recommend giving it a read as it sets out the eight key factors which drive business success – something vital to prioritise in the months and years ahead.

We're not going it alone when it comes to Brexit. In Scotland, we are working closely with partners such as the Scottish Government, NFUS, QMS and Scotland Food and Drink to ensure the strongest support for the industry through this turbulent time.

We understand that having a professional workforce is vital to improving your business performance. At AHDB we work with a range of organisations in order to help farmers develop and retain current staff, while planning for recruitment of the next generation.

In Scotland, particularly through NFUS and Scotland Food and Drink, great strides are being made with the Modern Apprenticeships which were launched initially in Dumfries and in the creation of an online hub for human resource related matters. Along with our Senior Skills Manager, Tess Howe, I have had a number of positive meetings on how AHDB can help in Scotland. If we can get to a situation where the uptake of business leadership and skills becomes routine, this can only benefit the food and farming sector.

Finally, another area where our success has been largely down to working in partnership has been on our Monitor and Strategic Farms. As you'll see later in this issue, the Monitor Farm Scotland programme, which we manage with QMS, is moving on apace, and our Strategic Potato (SPot) Farm (supported by institutes such as James Hutton and NIAB CUF, as well as industry partners like Albert Bartlett) really showcases how research can be profitably applied on commercial farms. **66** We're not going it alone when it comes to Brexit. In Scotland, we are working closely with partners such as the Scottish Government, NFUS, QMS and Scotland Food and Drink to ensure the strongest support for the industry...**99** 



# **Strategic Potato Farm Results**

AHDB's Strategic Potato (SPot) Farms are a network of on-farm demonstration sites to promote application of new research to commercial practice.

#### Results day 2019 - overview

- Nitrogen applications can be cut without decreasing yield
- Variable rate seed planting benefits seed and salad crops
- Reducing cultivation depths and removing bedtilling saves money and increases yield

### Reducing nitrogen without reducing yields

Once more SPot Scotland has shown you can vastly reduce nitrogen use without seeing any negative impact on potato yield or crop quality. In fact, we have seen better yields when less nitrogen has been applied (Table 1).

Marc Allison of NIAB CUF explains: "You don't need an 'insurance application' of nitrogen, just use what is recommended, otherwise you could be adding cost and losing yield."

#### Variable rate seed spacing success

While the results of the 2018 SPot demo plots did not show that variable rate planting improves yield or pack out, Bruce Farms have found it to be very useful.

Farm Manager, Kerr Howatson, used soil scanning on some of his more difficult fields, and then varied the rate of salad potato planting depending on the soil type.

More tubers were planted more tightly together in areas with heavier soil, and the result was a crop that was much closer to spec (under 42 mm) than would have been the case otherwise (Table 2).

Kerr says: "We've seen huge value in variable rate planting where you need to aim for a smaller size, for example with seed and salads. It really can make a big difference."

#### Cultivation trials prove less is more

After three years of trials it's clear that a less is more approach is the way to go with cultivations.

Mark Stahlam of NIAB CUF explains: "Year on year the standard farm treatment has yielded more poorly than those treatments where bedtilling has been removed or cultivation depths have been reduced. Not only that, but the reducing cultivations saves time and money. In 2018 three cultivation trials (Table 3) were run using the following variables:

1. Bedform 12", Bedtill 12", Destone 12"

#### Table 1. Nutrition results

- 2. Bedform 12", No Bedtilling, Destone 10"
- 3. Triple bedtiller 12"

	Trial 1	Trial 2	Trial 3	Trial 4
	Placement	Reduced	Further reduced	Control
Planting (N/Kg/Ha)	179	147	90	179
Top dress	Standard*	0	0	Standard*
Crop harvested (no of boxes/ha)	69	68	70	58
Graded product (tonnes/ha)	61	61	61	54
Packout figures (*packout % — useable)	41	44	41	36
Yield (t/ha)	28.5	29.7	28.7	20.7

\*Top Dress Standard - 185 kg/ha of calcium nitrate (Total 29 kg N/ha)

#### Table 2. Seed spacing results

	Trial 1	Trial 2	Trial 3	Trial 4
Seed rate (cm)	33	38	47	Variable
Crop harvested (no.of boxes/ha)	55	62	54	53
Graded product (tonnes/ha)	51	57	51	47
Packout figures (*packout % - useable)	51	43	42	42
Yield (t/ha)	27.9	26.7	22.9	22.1

#### Table 3. Cultivation results

	Trial 1	Trial 2	Trial 3
Crop harvested (no.of boxes/ha)	53	57	58
Graded product (tonnes/ha)	49	49	52
Packout figures (*packout % - useable)	35	36	36
Yield (t/ha)	18.7	20.6	20.8

# Growing international markets for Scottish seed

After spending 2018 opening the doors to new markets for seed potatoes, 2019 will see AHDB focusing on strengthening relationships with existing markets. While recent successes have seen access to GB seed approved in both China and Kenya, exporters are also keen to increase tonnage to key countries such as Egypt and Morocco.

AHDB Head of Crop Trade Market Development Rob Burns, explains: "It's largely due to developing close trading partnerships with countries like Egypt, Morocco and the Canaries that Scottish seed potato exports have increased from just over 40,000 tonnes in 2001 to over 75,000 tonnes in 2018.

"We need to make sure we continue to demonstrate to our most loyal customers that our products are of the right quality and specification, through regular inward and outward missions."

These relationships are considered even more vital, and potentially vulnerable, due to uncertainty surrounding future trade deals following Britain's departure from the EU. Export partnerships with third countries (where much of GB seed is exported) have all been negotiated through the EU, which means they will be affected by Brexit, although the extent of the impact is unclear. Executive Director of Agrico UK Ltd Archie Gibson explains: "One of the most immediate challenges we all face is the uncertainty around the ability to export into European and North African countries where we have arrangements under European Union rules and regulations.

"We'll be looking for UK industry and officials to have permission to arrange bilateral agreements with these countries – Egypt, Israel, Morocco, the Canary Islands and so on.

"My attendance at different meetings in Europe convinces me that industry wants solutions and we do not want the frustration of politics getting in the way of free movement of goods."

With Brexit in mind, AHDB's export team, alongside partners SASA, will be working to maintain seed export flows this year, with their renewed focus on existing markets.

"Countries such as Egypt, Morocco and Israel are some of the largest importers of British seed potatoes," said Rob. "AHDB, along with Scottish Government and industry, have to ensure the high health and quality of GB seed is appreciated by government and plant health officials in those markets, so that we continue to be their favoured supplier. "That's why this year we will be hosting delegations from countries like Egypt, so they can see the crop in the field, meet our exporters, visit SASA and get an in-depth understanding of our industry's commitment to quality."



Archie Gibson

# **Refreshed dairy focus for AHDB**

AHDB is now recruiting an additional person to work with Scottish dairy farmers, after the Scottish Dairy Hub officially moved to NFUS in February.

The Dairy Hub, managed by Stuart Martin, is a free-to-use, confidential, reliable, reactive service that helps dairy farmers to resolve any queries they might have about their farm, their business and the wider market for milk and dairy.

Established in 2014, the Hub was initially joint-funded by AHDB and the Scottish Government. However, as NFUS takes over AHDB's role, we have reallocated funding to create a new dairy-focused role in Scotland.

This Senior Knowledge Exchange Manager position means the industry will have the support of two dairy experts, who will work with farmers across Scotland on business and technical improvements.

Paul Flanagan, AHDB Director for Scotland, said: "The changes that we are announcing not only demonstrate a more joined-up way of working, but most importantly they strengthen the routes we have to engage Scottish dairy farmers.

"Stuart Martin has worked tirelessly on behalf of AHDB and the Scottish dairy sector these past five years and I would like to take this opportunity to thank him for all the fantastic work he has done and the genuine difference he has made to farmers' lives. I'm confident that the Hub will continue to thrive, with AHDB continuing to work closely with Stuart."



66 Doubling the number of Dairy Knowledge Exchange Managers that AHDB has on the ground in Scotland will mean that we can better support dairy producers through this defining time for the food and farming industry

# What next for our monitor farmers?

With one year of the Monitor Farm Scotland programme left to run, find out what our monitor farmers have achieved so far and what 2019 holds for them.

#### Lothians

Bill Gray (Prestonhall Farms) and Peter Eccles (Saughland Farm)



**Biggest achievements:** 

Bill: "I think one of ours was setting in motion the mechanisms and analysis for reintroducing livestock into the arable rotation without having to invest in livestock – sharing resources with Saughland Farm for mutual benefit.

"We've also engaged with scientific organisations such as Moredun Research Institute and the James Hutton Institute and shown people how the innovation they offer can actually drive farm productivity and efficiency."

Peter: "Clearly identifying the areas of strength and weakness within the business. This enabled me to target my focus on areas of need while also playing to our strengths and simplifying operations."

#### Plans for 2019:

Bill: "2019 is our last year, so we are focusing on the legacy of our project by compiling a toolkit for other farmers interested in trialling a livestock/arable collaboration."

Peter: "I'd like to see us getting more positive messages out to the public about the strengths of farming in our community and the excellent quality and sustainability of our produce. For example, how we are improving our ability to work with and alongside nature.

#### Sutherland

Jason and Vic Ballantyne (Clynelish Farm)



#### **Biggest achievements:**

"Opening ourselves up to our peers and explaining why we have made certain decisions is very challenging, but it really focuses you to have a good look at your practices and make sure they add up. Being really clear on why we do what we do, and having the flexibility to change when required, has been instrumental in ensuring the business is in good health and can handle difficult times in the future."

#### Plans for 2019:

"We will follow up on some of the testing and results we have been gathering for the last two years and use this to form plans for the future. For the livestock, this includes health and fertility planning and continuing to improve conception rates. For the health of the farm, it is grass rotations, soil health and maximising use of forage crops."

#### **Borders**

Stuart, Lesley and Rob Mitchell (Whitriggs Farm)



#### **Biggest achievements:**

"We've tightened up our calving from ten weeks to six weeks, which has made us much more efficient, and we've also taken the sheep off due to Maedi Visna and are reviewing whether or not to bring in a new flock. We've also taken on a deer herd, which has been very much down to Stuart's hard work. He's been to New Zealand to learn more about deer management, so I'm confident this enterprise will be a great success."

#### Plans for 2019:

"We're looking to keep growing the cattle numbers – when the Monitor Farm programme started we had 140, we are now up to 170 and want to get to 200.

"We've also increased our hectares of cereals from about 75 ha to 175 ha, which we've been able to do due to taking the sheep off. We're growing oats for milling and we hope to use the winter barley for straw so we don't have to buy as much in."

# FARMEXCELLENCE

Monitor Farm Scotland is jointly managed by Quality Meat Scotland (QMS) and AHDB Cereals & Oilseeds with funding from the Scottish Government.

#### Lochaber

Chris Cameron (Strone Farm)



**Biggest achievement:** 

"The Monitor Farm has really brought the community together, and that's something everyone has been really pleased to see – it makes a real difference. I've also gained a much better understanding of my costs; I know the value of the animal in a way I didn't before and I know how that value affects my business and my margins."

#### Plans for 2019:

"As a farm, we want to improve our grass production as that is one of the most important elements of being a livestock producer. I also want to look at whether we continue to finish lambs; I think having tried it we will probably go back to store, as for us the cost of finishing them is just too high."

#### North Ayrshire

John Howie (Girtridge Farm)



#### **Biggest achievements:**

"We're really focused on making incremental changes, ones that improve our overall efficiency and productivity. For example, we are growing more cereals for the livestock, adapting the design of our sheds, changing our handling facilities, all with the aim of improving cattle health and performance."

#### Plans for 2019:

"We are going to use everything we have learned so far to hone in on one particular breed of cattle – the continental. We've always had quite a few breeds, but think the continental will be easier to manage and work well with the system we are going to be using this year. We're going to rotationally graze them, then bring them in earlier, making use of the cereals and the sheds, so we can get more out of them."

#### Nithsdale

Aileen and Andrew Marchant (Clonhie Farm)



#### **Biggest achievements:**

"I think where we've really taken big strides is in grazing management. We started to monitor and measure grass growth, which has helped us really understand its value, and we now use rotational and paddock grazing. Deferred grazing has also made a big difference – we shut off an area in early September, which we can then use in January and February, a time when we would previously have had little grass left."

#### Plans for 2019:

"We've had a huge amount of change already on farm, including taking on a deer herd, so we will really be looking to consolidate this year. We'll keep working on improving our utilisation of the grass and we'll also be trying to rejuvenate some swards to improve quality while keeping costs down. We also want to look at how our breeding programme is doing, to make sure it is the right system for our farm."

66 We're really focused on making incremental changes, ones that improve our overall efficiency and productivity **99** 

#### Angus

Robert, Tom, Rory and Alison Stodart (Mill of Inverarity Farm)



#### **Biggest achievements:**

"Early on we identified a fertility problem in the cattle herd, so we have now started a new Aberdeen Angus-based herd, which will be closed once it's established. Genetics and performance recording are now used to identify replacements and improve performance.

"We've also improved the grass growth thanks to work to soil map the farm, addressing some problems with pH, as well as topping up other nutrients, such as calcium."

#### Plans for 2019:

"For 2019 we are actively looking at our succession planning and the structure of the business. For us, it is not just what will happen to the business when we are no longer in charge, but more about how we introduce the boys into the business and support them towards making management decisions."

#### Shetland

Kirsty and Aimee Budge (Bigton Farm)



#### **Biggest achievements:**

"The greatest achievement would be opening our minds to encourage us to make changes. For example, we are selling all lambs prime instead of store and we finished more cattle this year. It has encouraged us to look at our business in depth and remind ourselves to ask every time we make a decision if it would be profitable."

#### Plans for 2019:

"Our plans would be to continue to improve grass utilisation and look at different ways to increase the value of outputs, for example, we would also like to try growing fodder crops to decrease finishing time of lambs.

"We sold beef privately in 2018 and hope to increase our sales of this for 2019 by offering an order list with different cuts, allowing the consumer to choose exactly what they would like.

"We also hope to increase our barley yield by at least 0.5 kg/ton, as we believe there is a lot of potential. We will be growing a different variety and increasing fertiliser inputs."

#### Morayshire

lain Green (Corskie Farm)



#### **Biggest achievements:**

"Our biggest achievement is marketing our finished cattle at more accurate weights. We've been able to do this through installing a Beef Monitor system which weighs the cattle each time they go and take a drink. It helps maximise the total value of the animal, we don't get penalised for overweight animals and we're not losing out due to underweight animals."

#### Plans for 2019:

"We want to do more trials on barley this year. We'll be trialling Syngenta varieties of winter barley but we'll also be growing a mix of spring barleys so we can get a better idea of which offers the best yield and quality. As well as Concerto, we'll also be growing Laureate, Diablo and Fairing.

"On the livestock side we'll continue to test the Beef Monitor system, and we'll also be using Moocall which uses tags and collars to record bulling times."

# Embracing change: Life as a strategic farmer

Kerr Howatson and William Baillie share their experiences of our Strategic Farm programme

#### **Kerr Howatson**

Sector: Potatoes – Bruce Farms, Meigle, Perthshire Position: Potato farms manager

Project dates: 2016-2019

# How are you enjoying life as an AHDB strategic farmer?

I'm really enjoying it. This is our third and final year and we've had good results in the first two years, so we're looking forward to a great final year. We want to end the project with some golden nuggets of helpful information people can take away and use. Those areas we have looked at and now have the confidence to say, if you change something here, you can improve your yield and pack-out figures.

### What have been your most interesting results so far?

The most interesting results have probably been the cultivation and nutrition trials. Cultivations really interested me, so we started that early and began with eight trials, and we soon found you can reduce your cultivation depths, improve yields and save money. Both the cultivation and the nutrition trials have shown that making a small change can make a big difference to yields.

# Have you applied any of the trial results to the commercial side of the farm?

We have with regards to cultivations. We try to bedtill a lot less and to stone separate at shallower depths, as we know this reduces input costs and can increase yields.

We've also had good results when we have trialled reducing nitrogen, and I think if we get more good results this year, then I'll be confident we can cut back on nitrogen commercially as well, in the right environmental conditions.

# You have been looking at precision technology this year, what do you hope to find?

Precision technology is something that really interests us – we do nutrient mapping on farm, but we wanted to see if we could take it a bit further. We've been trying variable-rate planting in trials this year, so it'll be interesting to see what difference that has made.

#### You were keen to see improvements to the farm's bottom line when you started this project, have you?

Yes. We have seen improvements in yield, pack-out figures and costs across all of the trials, and to prove it can be done this year we will have one 'golden plot'. We're taking all the best-performing

# FARMEXCELLENCE

treatments, in cultivations, nutrition and seed spacing, and that plot should have the highest yield and pack-out.

I'm confident that after three years of being a strategic farmer we will change our management practices and see our profit margins increase.

# Have you got any advice for any future AHDB strategic farmers?

I would say not to underestimate the work involved, although it's definitely worth it. Doing trials on your own land, with your own machinery and your own management, is really useful, and you make lots of handy contacts. The key for us was having a hands-on project team that worked well together to make sure we focused on trials which would be of use to the wider industry.

# What do you see as the main opportunities and challenges facing the potato industry?

For us, the weather is always a challenge; we seem to be seeing more extremes, from soaking-wet weeks to the dry, hot summer last year, and that type of thing is hard to plan for. Also, growing packing potatoes in a declining market isn't easy. On the opportunities side, I think the convenience market is somewhere we need to be focusing our efforts – it's a real growth area.





### How are you enjoying life as an AHDB strategic farmer?

So far it's going pretty well. We're looking to make more changes on farm and the input we've had from other farmers is really valuable. We've had some really open conversations with the farmers who've come along so far – you get great ideas and information which is really useful.

### What are you hoping the project will help you change on farm?

Ultimately we want to improve the profitability and efficiency of the business, and initially we're hoping to do that through reviewing the nutrition and genetics. However, I'm keen to hear other people's ideas of areas we should look at which will help us boost our bottom line.

# You've started by looking at your nutrition, what are you trying to achieve by making changes here?

We're looking to increase yields, as well as improve cow health and fertility, and nutrition plays a key role in that. I would never look to increase yield at all costs; while you want to have a high feed intake which converts to high yields, you won't achieve that if you neglect other areas like health.



# What other areas are you hoping to focus on?

We're going to be looking much more closely at genomics. We've recently tested all the young stock under ten months and we'll use the results to guide our breeding decisions. It'll be really interesting to compare the genomic results to the predictions we've always used in the past, as these should be much more accurate, meaning we'll be able to make better decisions about which animals we breed from.

# Have you got any advice for any future AHDB strategic farmers?

I would say that anyone who is thinking about it should give it a go. It's a great opportunity to make use of the wealth of knowledge that is out there. It allows you to get experts onto your own farm and try new things which are suitable for your individual situation. Going to meetings is always useful, but I think you get even more out of being a host.

# What do you see as the main opportunities and challenges facing the dairy industry?

I think there are a lot of opportunities out there. I'm not sure about Brexit – some people see it as an opportunity while others see it as a threat. For me, the real opportunity lies in people becoming more aware of the health benefits of dairy products, which I think is happening already. Of course, veganism is often seen as a challenge, but I think we should focus more on getting the good messages out about dairy.

### Meet our new recruits

Chris Leslie (left) and Andy Findlay (right) have been welcomed as the newest members of AHDB's Scottish team. Chris will be focusing on the arable sector, while Andy will specialise in benchmarking.

#### **Cereals focus for Chris**

Chris will be part of a small arable team devoted to Scotland, which is led by Senior Knowledge Exchange Manager Claire Hodge. Chris's focus will largely be on cereals and oilseeds, while Claire will continue to concentrate more on the potato sector.

Chris grew up on an arable farm in Perthshire, and worked there later in life as an assistant farm manager. He studied agriculture at what was then the Scottish Agricultural College in Edinburgh and most recently spent the last nine years as farms manager in East Lothian, growing cereals and pulses.

"The work AHDB does directly with farmers is great," Chris said. "Getting





Chris Leslie

Andy Findlay

**Donald Ross** 

farmers together, sharing that wealth of experience and using it to challenge them and getting them to think differently and try new things makes a genuine difference to farming businesses."

#### Benchmarking with Scottish farmers

Andy and Chris will both work with farmers in our business improvement groups, with Andy supporting them to use Farmbench to drill down into business figures and make practical changes to improve their margins. Andy will be supporting new and existing groups, and those attached to the Monitor Farm Scotland programme, managed jointly by AHDB and Quality Meat Scotland (QMS).

Prior to joining AHDB, Andy worked at Scotland's Rural College (SRUC) for over six years as an agricultural mechanisation lecturer, having previously spent over 20 years as a Lantra instructor, alongside contract farming.

### Farmer discussion groups drive business improvement

Farmer-to-farmer learning sits at the very core of our activities, and the reason is simple, it works.

AHDB's arable business groups are a way to get farmers to benchmark their business figures, discuss them openly and then make changes that actually improve their bottom line. They have been such a success that we are now rolling out more such groups – called business improvement groups – to get more farmers on board.

Easter Ross farmer, Donald Ross, had no idea just how helpful he would find the business group when he joined five years ago. "The arable business group has been very good. We discuss, for instance, whether we are paying too much for insurance, repair bills, or fertiliser, and we compare and contrast.

"Farming can be a lonely business, too, and a business improvement group can give a real sense of camaraderie. "When you've got six, eight, ten people around a table, discussing costs and really opening up and having a good chat about it, you become friends and you will

The groups are facilitated by AHDB, and for Benchmarking Manager Doreen Anderson, being involved educates her, as much as the farmers.

end up telling them your most innermost

secrets," Donald said.

"Listening to farmers challenge each other, support each other, discuss ideas for improving their businesses is amazing," Doreen said. "I learn as much from them as they do from me, it really is a two way thing, between the farmers individually, and between AHDB and the farmers."

Aberdeenshire farmer Peter Chapman has had a similar experience with business improvement groups. "The farmer-to-farmer discussion is where you will find out how to make the tweaks that will improve your business," he

Peter Chapman

says. "Farmbench is critical because we spend about two hours going through the figures to understand where the differences are between us and what the trends are from one operation to the next."

While Peter realises being open with business figures isn't something farmers are always comfortable with, he believes it is well worth any short-lived awkwardness. "Some people might be reluctant to share information, others might be put off by the time it takes to input the data," he said. "Yes, there is some work involved, but when you've done it once, it gets easier and there are always people at AHDB who are there to help you if you need it. There's not a business on the face of the planet that wouldn't benefit from benchmarking, or from joining a business improvement group."

To find out more about joining a local business group contact Andy Findlay at andy.findlay@ahdb.org.uk

# The James Hutton Institute



# **Our Key Partners... The James Hutton Institute**

AHDB works closely with partners across Scotland, including research institutes, industry bodies and, of course, farmers. In each issue, we will be highlighting one of those partnerships to explain more about how it benefits levy payers.

In this edition we are focusing on the James Hutton Institute (JHI), which we work with on potatoes, cereals and horticulture research.

"For us, AHDB bridges the gap between applied science and commercial practice," James Hutton CEO Colin Campbell explained. "They are a critical partner for us, both in terms of funding research, as well as working together to get what we have learned out to farmers so they can use it to improve their practices."

AHDB Chief Technical Officer, Rebecca Geraghty, agrees.

"We want to make sure the research we fund is relevant and applied, so it is vital we have a feedback loop between ourselves, the researchers and the farmers. That's why knowledge exchange programmes like our Monitor and Strategic Farms are so important.

"We need to ensure that every pound of money we spend brings back genuine value to our levy payers, and we can't do that without two-way communication."

Currently, AHDB has over £2.3 million invested in projects at the Institute, including work on blight and blackleg, soil health, as well as the raspberry breeding programme, which has recently secured funding from the organisation for a further five years. Blackleg (a serious bacterial disease of potatoes) has long been an issue for potato growers and recent AHDB-funded work at the Hutton has led to a potential breakthrough in how the disease spreads.

"We're in quite a good position at the moment," Professor Ian Toth, who leads the project, explained. "Blackleg has been a really intransigent problem for the industry over the years, but now that we have discovered that the disease can occur directly from the environment, rather than just from infected seed, we can start to look at how to manage fields and irrigation to reduce the incidence of the disease."

lan has worked collaboratively with AHDB for years now and sees the relationship as very much a two-way street.

"We work together closely on projects, and AHDB helps keep us focused on what the industry needs," lan said.

Nikki Jennings, who runs the raspberry breeding programme at the institute, also stresses the importance of sharing findings directly. All the science and information about new varieties is shared in various ways including newsletters, factsheets and events.

The raspberry breeding programme, which AHDB has part-funded since 2002, is unique in the UK in that all growers can access and grow any of the varieties. The aim is to produce varieties that will suit the whole supply chain, are cheap to grow and, of course, produce highquality, tasty fruit.

Currently, the Institute is testing a new variety which has the molecular marker for resistance to root rot – a major issue for commercial raspberry producers. Nikki hopes to see the as yet unnamed variety hitting supermarket shelves in 2020.

66 Working with AHDB also helps connect us to the farmers we are doing the work for, through events and projects like the SPot Farm **99** 

"We've been working on this variety for nearly ten years now and it's performing really well," Nikki said. "Not only does it appear to be completely resistant to root rot, it's also a good-sized, tasty raspberry, which should go down well with consumers."

Like all good partnerships, there are always new avenues to be explored, and Colin is keen that the Institute's work with AHDB becomes ever more industry-led. One example of this is the International Barley Hub, which aims to bring together scientific expertise on barley and translate that research into commercial benefits for growers and the supply chain.

For Rebecca, its projects like these that really make the James Hutton Institute stand out.

"The Barley Hub is a fantastic project and very much a collaborative one. I remember one of the early meetings and we had representatives from lots of organisations, from across the supply chain, all working together to create something which can offer strong support to the Scottish barley sector.

"We've been closely involved right from the beginning and we'll continue to work with the Hub as it develops, making sure it is always focused on industry needs."

### **Inside the AHDB toolbox**



We have loads of tools and resources on the AHDB website – check out some of our favourites here.

#### **Cross-sector**

Brexit – explore our Brexit impact calculator, Brexit toolkit, resilience checklist and much more – ahdb.org.uk/brexit

Farmbench – our easy-to-use benchmarking tool for arable, livestock and dairy, check it out online – ahdb.org.uk/farmbench – or get in touch with Andy Findlay (andy.findlay@ ahdb.org.uk) to find out more

WeatherHub – in-depth information on rainfall, mean temperature and soil temperature – ahdb.org.uk/weatherhub

#### **Potatoes**

Fight Against Blight – regularly updated reports of blight incidences across the UK – blight.ahdb.org.uk/BlightReport

Storage Cost Calculator – ahdb.org. uk/knowledge-library/storage-costcalculator

PCN Calculator – uses PCN numbers and management options to predict the potential population growth and impact on yield – potatoes.ahdb.org.uk/onlinetoolbox/pcn-calculator

Aphid monitoring – aphmon.fera.defra.gov.uk/

Potato Data Centre – examine data on price, variety, planted area, market sector and yield – potatodatacentre.ahdb.org.uk

#### Dairy

KPI benchmarking calculator – benchmark your business and technical performance and identify areas for improvement – ahdb.org.uk/optimaldairy-systems-benchmarkingcalculator Milk Price Calculator – input farmspecific data to find out where changes can be made to improve the milk price on your current contract – dairy.ahdb. org.uk/market-information/milk-pricecalculator/

Milk forecasting tool – compare your current system against a range of alternative scenarios; the tool can be used to see how changes to herd size, yields or calving patterns will impact your business – ahdb.org.uk/milkforecasting-calculator

#### **Cereals & Oilseeds**

Machinery costing calculator – input your machinery costs and find out what each bit of kit costs to run per hectare or per hour – ahdb.org.uk/machinerycosting-calculator

Harvest Results interactive – have a look at the latest Recommended List (RL) data on how different varieties performed at the various RL trial sites – cereals. ahdb.org.uk/harvestresultsi

#### Horticulture

Blackcurrant gall mite emergence charts – this tool predicts when mites will emerge and advises when to spray (using data collected from 160 locations) – ahdb.org.uk/bgmec

Pest Bulletin – weekly report on current pest levels across the UK – syngenta.co.uk/ahdb-pest-bulletin

**Crop Walkers Guides** – covering a huge range of horticultural crops (available from the App Store or the Play store) – **youtu.be/Uf1b-EPEyxQ** 

Biosecurity guide for protected edibles – horticulture.ahdb.org.uk/biosecurityprotected-edibles-guide

# Save the date



Strategic Dairy Farm meeting (genomics) 25 April, Lanarkshire

Arable Scotland 2 July, Dundee

SPot Open Day

9 July, Perthshire

**Potatoes in Practice** 

8 August, Dundee

#### **Monitor Farm Meetings**

Dates below are the confirmed meeting dates, there will be more meetings dates TBC – check out monitorfarms.co.uk for up-to-date information.

Borders 22 May Lothians 23 May Angus 23 May Shetland 08 June Angus 27 June Borders 17 July Lothians 19 July Angus 25 July Sutherland 31 July Shetland 17 Aug Sutherland 11 Sept Borders 25 Sept

Visit **www.ahdb.org.uk/events** for more detailed information.

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