

# ALL ABOUT Scotland

YOUR BIENNIAL AHDB UPDATE

AHDB

Autumn/Winter 2019

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Paul Flanagan  
Scotland Director & Sector Strategy Director – Dairy

## Welcome

**Once more, the Brexit deadline is looming, and predicting the result seems more than a little foolhardy. However, I have been trying to imagine what Scottish agriculture will look like in five years' time, possibly something just as challenging.**

But it is necessary. I – along with my colleagues – am currently designing a new AHDB plan for Scotland covering 2020–2025 and, to make sure it will give you the right support, we need to have a clear picture of where agriculture is going, and what role AHDB should be playing.

I've been speaking to farmers and growers, as well as other industry bodies, and there are several areas that have come up again and again and which, clearly, we will need to focus on in the years ahead.

Our reputation will be key, and that is closely linked to our efforts to improve the environment. How are we protecting our natural landscapes, how are we encouraging biodiversity and helping capture carbon? We know farmers are already doing this, but we need to measure and promote that work, and we need to do more of it.

Consumers are also increasingly concerned with areas such as animal health and welfare, and nutrition. While we recognise our role in promoting best practice on animal health and welfare within the industry, we must also continue to communicate clearly to consumers that the food we produce in Scotland is healthy and tasty, and this is all underpinned by high animal care standards.

We also know that our knowledge exchange programme, whether it is our business groups and agronomy events, or our strategic and monitor farms, is a vital support to the industry, and we need to adapt as farming evolves. We will continue to use farmer-to-farmer learning opportunities to build business and technical skills, using systems like LEAN and Farmbench to improve bottom lines, at individual and industry level.

Markets and marketing will also need to be part of the picture. How do we respond to market demands, and how – and where – should we promote our products?

Finally, there has been much talk of collaboration, both between farmers and industry bodies, and it is vital we combine resources and expertise to protect and promote our businesses and agriculture generally.

The new strategy will be published in April 2020, and if you would like to tell me what we should focus on, please get in touch ([ScotlandDirector@ahdb.org.uk](mailto:ScotlandDirector@ahdb.org.uk)).

“ I – along with my colleagues – am currently designing a new AHDB plan for Scotland covering 2020–2025 and, to make sure it will give you the right support, we need to have a clear picture of where agriculture is going, and what role AHDB should be playing ”





# Claire embarks on a Nuffield Scholarship

**Senior Knowledge Exchange Manager Claire Hodge has always enjoyed a challenge and taking on a Nuffield Scholarship is likely to be one of her biggest yet.**

She says: “The Nuffield is a great opportunity to travel the world, asking the kind of questions that we don’t usually have time to answer.

“One of my focus areas at AHDB is now on potato seed production, which is a critical stage in the production system and one that has many quirky anomalies.

“My Nuffield Scholarship is looking at connectivity in the seed supply chain. I’m keen to get a better understanding of how emerging and established markets are managing pest and disease threats, and thus see where the opportunities are for Scottish seed.”

Claire’s Nuffield journey kicked off with a world tour, a six-week journey through Asia, Europe and the USA, looking at the diversity of agriculture across the world. It was an incredible experience.

In Asia – travelling through China and the Philippines – Claire got a good flavour of the roles played by each country on the continent.

“Singapore is a gateway to trade with Asia, compared to Hong Kong where things are more volatile, due to difficult relations with China,” she explains. In complete contrast to those two huge metropolises, the group also visited the

International Rice Research Institute (IRRI) in the Philippines, which trains 60,000 people a year on rice production.

Moving on to Europe, travelling through Germany and the Netherlands and on to Ireland, Claire found that, as in the UK, the role of the farmer is evolving.

“Farmers are focusing more on producing food while preserving the environment,” Claire says. “This is accelerating alongside consumer expectations, and that consumer producer relationship is what FORUM (based in Germany) is working on, improving communication and understanding.”

The final leg of the world tour saw the group touch down in Washington D.C. where they met senators, policymakers and lobbyists.

“It’s hard to understand what farming means to such a distant place full of money and power,” Claire says.

“However, what was clear was the scale of support the US Department of Agriculture (USDA) provides for American farmers in terms of expertise and data.

“But cropping choices are driven by commercial profit, for harmony support is ‘hands off’ and not disruptive to markets.”

After an amazing experience this summer, Claire will now move her focus to potato supply chains in the autumn. Her next journey will take her to Kenya, India, Chile and Brazil.



Find out more about that adventure in the next issue of **All About Scotland**.

Claire would like to thank the McRobert Trust and Strathmore Potatoes for supporting her Scholarship.

## Julie joins the team



**The team in Scotland have welcomed on board Julie Clark, who will work as a knowledge exchange manager, specialising in benchmarking.**

Based in Ayrshire, Julie will be working with farmers across Scotland to help them to gain a more in-depth understanding of their costs, using AHDB system Farmbench.

This involves working with AHDB business improvement groups, as well as supporting the business groups attached to the Monitor Farm Scotland programme, managed jointly by AHDB and Quality Meat Scotland (QMS).

Having spent some time working out of agriculture recently, Julie is excited to be back working with farmers. She says: “I’m very glad to be back in the farming world and really pleased to be working with such a good team in Scotland.”

Anyone interested in learning more about Farmbench, should contact Julie directly by emailing [julie.clark@ahdb.org.uk](mailto:julie.clark@ahdb.org.uk)

## SPot the change at Bruce Farms

Three years ago, Bruce Farms agreed to become AHDB's first strategic potato farm in Scotland, and they embraced the project ethos – driving research into commercial practice – with gusto.

Over the years, they have carried out several field-scale trials on farm, and they have shared the results with other potato growers through a series of open days, leaflets and articles.

They found ways to reduce labour and save money while increasing yields and decreasing their environmental impact. It's been quite a ride for Potato Farms Manager Kerr Howatson.

He says: "Being a strategic farmer has been a great experience, hard work but well worth it. We proved over and over that you can reduce inputs and costs, and still either maintain or increase marketable yield.

"I hope our results will give the industry confidence to alter future farm practice."

As the project comes to a close at the end of this year, we have taken time to look back at some of the most significant results\*. It should be noted that all crops were taken through to the packhouse to judge which demo performed best at producing high-quality marketable yields.



## SPot Farm Results – 2016–2019



### Reduced cultivation

Cultivation trials have been carried out every season and have consistently shown that bedtilling can be reduced or removed, without any negative effect on yield.

#### Results

Demo	Treatment	Marketable yield		
		2016/17	2017/18	2018/19
Control	Bedform 12", bedtill 12", destone 12"	30 t/ha	28 t/ha	19 t/ha
Reduced bedtill	Bedform 12", bedtill 6", destone 12"	36 t/ha	35 t/ha	(No trial)
No bedtill	Bedform 12", no bedtilling, destone 10"	41 t/ha	33 t/ha	21 t/ha
Triple bedtiller	Triple bedtiller 12", destone 12"	(No trial)	43 t/ha	21 t/ha

### Nutrition

Our trials have found that nitrogen can be substantially reduced without negatively impacting yield or quality.

#### Results: 2017/18

Nutrition demo	Treatment	Marketable yield
Trial 1	Standard planting: 147 kg/N/ha Top dress: Standard 29 kg/N/ha	36 t/ha
Trial 2	Standard planting: 147 kg/N/ha Top dress: Ridge Inject 28 kg/N/ha	38 t/ha
Trial 3	Standard planting: 147 kg/N/ha Top dress: None	41 t/ha
Trial 4	Liquid planting: 148 kg/N/ha Top dress: Standard 29 kg/N/ha	37 t/ha

#### Results: 2018

Demo	Treatment	Marketable yield
Trial 1	Control planting: 179 kg/N/ha Top dress: 29 kg/N/ha	21 t/ha
Trial 2	Reduced planting: 147 kg/N/ha Top dress: 0	30 t/ha
Trial 3	Further reduced planting: 90 kg/N/ha Top dress: 0	29 t/ha
Trial 4	Placement planting: 179 kg/N/ha Top dress: 29 kg/N/ha	29 t/ha



## Seed spacing

These trials focus on seed rates to demonstrate the impact of various seed spacings on yield, tuber numbers and dry matter.

Results: 2017/18

Nutrition demo	Treatment	Marketable yield
Trial 1	35 cm	38 t/ha
Trial 2	40 cm	35 t/ha
Trial 3	47 cm (AHDB recommended)	34 t/ha

Results: 2017/18

Nutrition demo	Treatment	Marketable yield
Trial 1	33 cm	30 t/ha
Trial 2	38 cm	27 t/ha
Trial 3	47 cm (AHDB recommended)	23 t/ha
Trial 4	Variable	22 t/ha

Senior Knowledge Exchange Manager Claire Hodge says: “Our work with Bruce Farms has been successful and we are grateful to the team there for all their commitment to the project over the last three years.

“We are now on the lookout for a new host, a seed potato grower, to better understand that crop, in terms of plant health, cost of production and, of course, the export market, which makes up a significant proportion of the sector.”

The current farm’s final year results (2019/20) will be shared at the project’s closing meeting, where you will also be able to meet our next host farmer.

The event will be held on 12 December, location TBC.

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

The project has five host farms across GB: Perthshire, West Suffolk, Shropshire, Somerset and North Lincolnshire.

SPot Scotland is hosted by Bruce Farms in Perthshire and is funded by the Scottish Government until 2020.

Grower involvement is key to the project’s success, driving decision-making on which trials are carried out and how they are managed.

All trial plots were ploughed in the autumn. Maris Piper is used in all trials on SPot Scotland.

\*Please note: Yield figures in these results should not be compared with standard commercial yields as more waste is generated due to the additional handling of field scale trials. The yield figures demonstrate which treatments performed most effectively compared with poorer performing treatments and do not reflect the likely yield the treatments would achieve on a commercial farm.







## Thomas Thomson aims for productivity improvements

Blairgowrie-based grower Thomas Thomson was named as AHDB's third Strategic SmartHort Centre earlier this year. Already, the team has hosted their first workshop, acting as live case study for productivity improvements.

Strategic SmartHort Centres work with consultants, using the LEAN process to identify areas of waste in the business, which they can then remove to improve efficiency by 25–40%. Other growers who attend the meeting are then able to apply the techniques to their own business, and report back on their success.

Neil Fedden, the project's productivity consultant, explains: "Everyone who comes to the Strategic SmartHort Centre will develop an action plan, which they can implement on their own businesses and, as we go through the year, everyone will be able to share what changes they have made, and how they have made a difference to their business."

Peter Thomson, CEO of Thomas Thomson, who has been in the soft fruit business since the 19th century, has long prioritised labour efficiency.

He says: "Labour really is a big issue, both the cost of it and the availability. While robotics does offer some potential in the future, it's a long way off, so we're keen to see what new ideas this



process throws up, and we're committed to making real changes and being able to report back on genuine efficiency improvements at the end of the day."

At the first workshop, the Thomas Thomson team, along with other local fruit businesses, were taught the theory behind LEAN, which focuses on identifying the individual steps involved in a task and working through how to simplify it.

They have now identified eight potential changes they could make to their system, such as increasing the number of scales and changing the picking process, which should increase productivity.

The group will meet again in November, when they will share which changes are making a real difference to their businesses.

For more information on LEAN, please visit the AHDB website.



### LEAN Explained

**Waste:** Reduce activities defined as 'waste', i.e. tasks that don't add value to the customer.

In horticulture businesses, these might be: Time spent searching for tools, unnecessary paperwork or positioning pots.

**Waste walks:** Follow an activity in the business (for example, picking or potting) from start to finish and identify parts of the process that are wasteful.

**For example:** Moving foliage to get to the fruit, having to return to a central point to weigh fruit, or opening packaging.

**TIMWOODS:** This acronym is used to help identify waste through looking at eight areas: Transport, inventory, motion, waiting times, overprocessing, overproduction, defects and skills.



# Changes to Safe Haven Standards will support long-term health of GB potato industry

**Red Tractor has revised the Safe Haven Standards, the seed potato assurance scheme.**

New standards likely to be added to the scheme cover areas such as water use, storage best practice and traceability. The strengthened standards will now mean that the scheme will also cover Brown Rot and Epitrix on top of the existing coverage of Ring Rot and Dickeya.

The Safe Haven Standards were introduced after a ring rot outbreak in England and Wales in 2003 from seed sourced from the Netherlands. The scheme was later widened to include Dickeya and has been largely successful at protecting GB seed stocks from these diseases, with 60% of growers certified (by area) under the Safe Haven Standards.

Red Tractor, working with AHDB, FERA and the James Hutton Institute, has updated the current scheme, adding eight new standards. The revised standards have gone out for official consultation with industry and will be launched early next year.

Vicky Smith, technical manager for Red Tractor, explains: "All Red Tractor Schemes are regularly reviewed to ensure they offer the best protection for growers, and thanks to a recent industry survey, we identified a number of ways to strengthen the standards.

"While the standards have served the industry well, the world does move on, and the potato sector is no different; we need standards that can cope with the changing environment, with political issues like Brexit and, of course, climate change."

## AHDB Exports team showcases seed at Potato Europe

**The AHDB Export team was out in force representing the potato industry at Potato Europe 2019 in Belgium.**

Exports Coordinator Margaret Skinner, and Senior Knowledge Exchange Manager Claire Hodge, were part of the team who visited Kain to network with professionals from across the supply chain.

On the AHDB stand were Scottish seed growers, Skea Organics; ware potato specialists, Taygrow; potato market experts Maincrop Potatoes and representatives from Science & Advice for Scottish Agriculture (SASA).

With a reported 10,000 visitors, the stand saw great footfall, and remained a popular attraction over the two days. As predicted, many appeared to be interested in the shape of the post-Brexit market, but the continued uncertainty didn't seem to cause too much of an issue, as conversations soon got down to business.

Rob Clayton, Strategy Director for AHDB Potatoes, said: "Potato Europe is traditionally a well-attended event and this year was no different.

"It was great to see some familiar and many new faces visit the AHDB stand, which gives us and the whole of the British potato industry confidence moving forward.

"From a personal point of view, I was really interested to see what the likes of Belgium and Holland are doing – in terms of technological and mechanical advances, we're moving into some really interesting times, and it's events like this where we get to see it all happen."

“ Potato Europe is traditionally a well-attended event and this year was no different ”



# Pushing up herd productivity

## Small changes are making a big difference for AHDB strategic dairy farmer Willie Baillie.

After reviewing his nutrition management, Willie made the decision to reduce sorting by soaking concentrates overnight. In just a few weeks, he saw his milk yields increase by 1.5 litres per cow.

Willie, who farms in Lanarkshire, joined the strategic farm programme in 2018, with the aim of increasing his lifetime milk yield from 11,400 litres to 12,000 litres, through making changes to both nutrition and herd genomics.

Independent nutritionist Hugh Kerr worked with Willie to identify possible changes to his feeding regime, which would improve the dry matter intake of his 310-strong herd of pedigree Holsteins.

The potential changes included:

- Soaking concentrates overnight
- Tweaking their diet, Willie currently feeds a total mixed ration (TMR) of grass silage, whole crop, moist feed, super grains and straights
- Feeding twice a day, Willie currently feeds once a day and pushes up six times

## Soaking concentrates

After lively discussions with other local farmers at his first open meeting, Willie decided that soaking concentrates was most likely to make a difference to his performance.

“Quite a few of the group were doing it and seeing good results,” Willie explains. “It also seemed likely to fix something we have seen quite a lot of here at Hillhead, which is sorting and, hopefully, increase cudding.”

Nutritionist Hugh has worked with several other farms who have also seen the benefit of soaking concentrates.

He says: “I have good evidence that if you add water to a ration that is 40–45% dry matter, you will get more milk from the same feed.

“It’s really a behavioural thing, it means cows don’t have to visit the water trough as often and they will eat bigger meals if they are already wet. What we find is that they spend more time lying down and, of course, that is when the milk is being produced, hence improved yields.”

## Changing the diet

Willie has also changed his ration slightly by trying to make starch feeding as rumen-friendly as possible. Instead of feeding a rolled cereal, he is now feeding a wholegrain wheat treated with caustic soda.

“The particle size of the wholegrain is bigger, which improves digestion by taking longer to work through the rumen,” Hugh explains. “Through treating it with caustic soda, we have raised the pH to approximately nine, which helps to ensure there is no acidity or inflammation of the gut.”

In general, Hugh’s priority is ensuring the cows are getting enough dry matter, as there can be a lot of variation between and within farms.

“I often speak to farmers who don’t understand why, when they have put together what they believe is a good ration, they don’t see results in terms of milk yield.

“But we need to spend more time monitoring what is going in, rather than focusing too much on what is coming out. One way to be sure is to weigh what the cows are actually eating; there is often a real difference between what we think they are getting and what they are actually taking in.

“And always, always review what you are feeding regularly; just because it worked well at the start of winter doesn’t mean it will still work well by the end.”







### Feeding more than once a day

Another way to increase yields is to feed more than once a day, something that might seem simple, but isn't necessarily the norm.

For Willie's system, feeding once a day and pushing up six times has kept his yields high, but other farmers have seen real improvements simply by going from feeding once to twice a day.

Hugh explains: "All the trials work I have seen or been involved with would suggest that, if you move to twice a day feeding, you will improve dry matter intake by 10–15%, which should then result in increased yields.

"In fact, feeding twice a day is far more valuable than pushing up, because the more you offer cows fresh food, the more they eat."

### About strategic dairy farms

Strategic dairy farms help farmers learn from each other through regular on-farm meetings, where we share key performance data and showcase what the top-performing farmers are doing.

They form part of the Optimal Dairy Systems programme, which aims to help dairy farmers lower costs and increase efficiency, by focusing on either a block or all-year-round calving system.

The next meeting of the Scottish strategic dairy farm will be early in 2020 at Hillhead of Covington in Lanarkshire.

“I have good evidence that if you add water to a ration that is 40–45% dry matter, you will get more milk from the same feed”



# Pushing up yields with YEN

**Some of Scotland's top arable farmers recently visited some record-breaking farmers down south to find out how they achieve their incredible yields.**

The Scottish YEN Growers Group is made up of farmers who are all taking part in the Yield Enhancement Network (YEN), which is run by ADAS and supported by AHDB.

As well as in depth technical support and free soil and grain testing, farmers taking part in the YEN can also enter the national competition, which awards prizes not just for the highest yield but to those farmers getting closest to their own farm's yield potential.

Over the course of two days, the group – which includes many previous YEN Award winners – visited Lincolnshire farmers Tim Lamyman and David Hoyle, as well as the Rothamsted Research Institute.

David Hoyle focuses on running his farm as a business where poorly performing crops are quickly replaced, while Tim Lamyman's focus is more about achieving the highest possible yield. Both farmers have won awards for yields as part of YEN.

At Rothamsted, the group got a glimpse of the organisation's sample room, where samples from all the long-running experiments are kept (going back to the 1800s). In fact, the Institute boasts the world's longest-running experiment – winter wheat grown in different ways – which has been on the go since 1876.

The visit highlighted some of the ways in which growers can increase their yields, as group member and ADAS scientist Sarah Kendall explains:

"We've analysed all the YEN data and one of the consistent things we are finding – which is something Tim is very much pushing – is that crops with high ear numbers are positively associated with yield."

"Also, we take samples of the crop at harvest, and that has shown us that crops with a high biomass are positively associated with yield."

"So really, we should be managing the crop with those targets in mind."

This year's Yield Enhancement Network Awards will be held in November and we'll be sharing tips from the winning growers in the next issue of All About Scotland. You can find out more about the Yield Enhancement Network by visiting [yen.adas.co.uk](http://yen.adas.co.uk)





# A love affair with benchmarking

**“Some people just don’t know what their cost of production is,” cereal farmer Alan Grant says, “but you have to measure what you are doing so you know where you can make changes.**

“That’s why we benchmark and, honestly, we love it.”

Alan, whose family has farmed in Aberdeenshire since 1926, began benchmarking in 2011 after joining a business group attached to AHDB’s Aberdeen Monitor Farm.

He now uses AHDB’s cross-sector tool Farmbench to compare his figures with other farmers and, not only has it given him a better understanding of his own business, he has also been able to make changes to improve his margins.

As well as taking on more land to contract farm, he also carries out other

jobs on local farms, such as spraying, which allows him to justify the expensive machinery often needed to farm effectively today.

“Someone once said to me, if you buy a bigger tractor, you need to buy another farm. The kit nowadays is so expensive every farmer can’t own separate combines and tractors; the same machinery needs to be operating over larger areas, which is what we are now doing.” Alan says.

Another change Alan has made, along with other members of the business group, has been switching to liquid fertiliser, not only does he find it quicker, easier and cheaper, but it also avoids overlaps in the field.

“It really improves accuracy,” he says, “and you can put it on any time, rather than having to wait for ideal conditions, which makes life much easier.”

Having been benchmarking for several years, Alan has some tips for other farmers thinking about giving Farmbench a go.

“You need to be disciplined, make sure you get your numbers in by a certain date so you can meet with other farmers to compare and contrast.

“Attention to detail is key, the more you understand about your inputs and outputs the better. I’ve always noticed farmers with less land do better in terms of yield, as they can really focus on the area they have.

“But remember to have fun, our get-togethers aren’t just about figures but about learning from each other and having a laugh.”

To find out more about Farmbench, visit [ahdb.org.uk/farmbench](http://ahdb.org.uk/farmbench)







### SmartHort LEAN workshop

Blairgowrie 6 November

### AgriScot

Edinburgh 20 November

### SPot Results Day

TBC 12 December

### Agronomy workshops

Borders 14 January

Perthshire 16 January

Aberdeenshire 21 January

Inverness 23 January

### Fruit Logistica

Berlin 5–7 February

### Monitor Farm Meetings

Dates below are the confirmed meeting dates, there will be more meetings dates TBC, check out [monitorfarms.co.uk](http://monitorfarms.co.uk) for up-to-date information.

Angus 31 October

Borders 13 November

Angus 21 November

Sutherland 27 November

Morayshire 3 December

Shetland 7 December

Angus 19 December

Morayshire 14 January

Angus 23 January

Shetland 8 February

Angus 20 February

Morayshire 25 February

Visit [www.ahdb.org.uk/events](http://www.ahdb.org.uk/events) for more detailed information.

# AHDB team triumph at the Great Glen Challenge!

The AHDB team took first place at this year's Great Glen Challenge, which sees teams of four compete in individual events – mountain biking, running, walking and kayaking.

Head of Arable Knowledge Exchange Tim Isaacs and Scotland Director Paul Flanagan were fastest in their individual events (kayaking and walking respectively), while Knowledge Transfer Manager Emily Pope and Knowledge Exchange Manager Chris Leslie also put in strong performances to help secure the trophy. The team were ably supported by Senior Marcomms Manager Sarah

Hunter-Argyle, who took on the role of team support driver.

Scotland Director Paul Flanagan says: "We came 17th last year when we did the Challenge for the first time, so we've made quite an improvement this time. I'm really proud of the team and, of course, we are all absolutely delighted with the result!"

The team are currently on track to raise over £1,000 for event organisers RSABI, the charity which provides emotional, practical and financial support to farmers in hardship in Scotland.



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