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AHDB is a statutory levy board, funded by farmers, growers and others in the supply chain. We equip the industry with easy to use, practical know-how which they can apply straight away to make better decisions and improve their performance. For further information, please visit ahdb.org.uk

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WELCOME

Nic Parsons, **Head of Engagement - Dairy**



In this issue, we are pleased to unveil the new sector plan, developed as a result of your feedback during the Shape the Future vote. You can find out more about that and your sector council on pages 4-7.

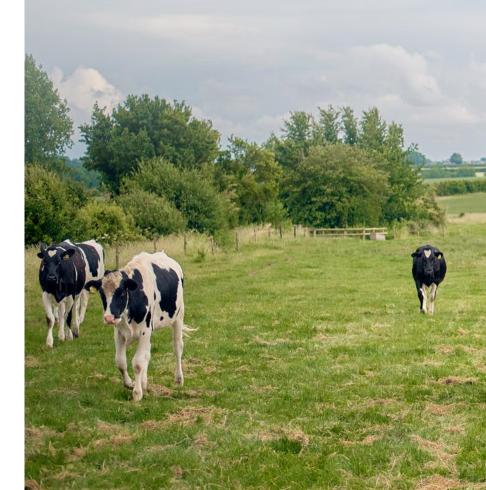
On pages 10-11, our consumer insight team explores the key drivers when purchasing dairy and how animal welfare and the environment play a part in consumer decisions.

We're striving to inform more children about where their food comes from with our education partnership programme, Food – a fact of life, which you can read about on pages 12-13.

On pages 14-15 you'll find out more about Medicine Hub, the industry-wide initiative that helps dairy producers monitor and compare medicine use and tackle the threat of antimicrobial resistance.

We look at how to improve fertility in block-calving herds on pages 16-17 and give our top tips on weaning management on pages 20-21. And we have other helpful articles in this issue for you to enjoy.

As always, remember to update your contact details and sign up for the events and webinars we have coming up. All details are on the back page.



A word from the **DAIRY COUNCIL CHAIR**

AHDB having farmers' backs is more crucial than ever. Around 8,000 farmers pay the dairy levy to ensure AHDB tackles the challenges that cannot be addressed by commercial organisations, individual farmers, or governments.

Dairy farming is not without its challenges. We are currently facing rising input costs, labour shortages, and uncertainty about the impact of food price inflation on demand for our products. We are also dealing with evolving consumer trends, navigating through new trading arrangements, and even dealing with some groups who want dairy farming to stop altogether.

However, British dairy farms have many advantages. Our high animal health and welfare enables our cows to produce nutritious milk, rich in protein, calcium and essential vitamins. This milk is among the most sustainable in the world, with dairy farmers and processors on a journey towards net zero carbon emissions. Each month, 99% of British households purchase a real dairy product.

Using dairy levy funding, AHDB can promote the benefits of British dairy products while at the same time working to ensure we have hard data and evidence to back up our claims.

As a result of the Shape the Future vote, we now know what's most important to you. You told us that protecting the reputation of dairy, educating consumers and advertising campaigns are your priorities.

We worked through your feedback and comments. At the same time, we considered the available budget plus the immediate and likely future opportunities and challenges for the sector. This resulted in the three key themes of work below, which are detailed on page 7:

Promoting our reputation

Lyndon Edwards

- Data and evidence to underpin our reputation
- Practical support for farmers

The plan sets out what work we have directed AHDB to do over the coming five years. You can find out more about the Dairy sector plan on pages 6 and 7.

Spring **2023**

Dairy Sector Council Chair



The way we operate is changing, with the sector councils becoming the voice of levy payers and shaping the work of AHDB. Dairy Sector Council Chair, Lyndon Edwards, explains more.

I farm in the Severn Valley, milking 240 predominantly Holstein cows, producing just over 8,000 litres. While I sit on the main board of AHDB as chair of the Dairy Sector Council, I'm also a levy payer.

The sector councils have replaced the previous sector boards. We are the voice of levy payers within AHDB and will guide and steer everything it does. Importantly the sector council makes the funding decisions about the work carried out on your behalf.

Each council member has been through a rigorous recruitment process. Their applications were scrutinised to make sure they met the strict job criteria. At the interview, they had to prove that their skills and competencies would provide the best outcome for levy payers. Interviews were carried out by a panel of sector and independent representatives.

Through our Shape the Future vote, council members have been ratified by you. Each member will serve for a term of three years, with a maximum of two

terms. At the start of each term, we will ask levy payers to reappoint them to the council. The same goes for when any role becomes vacant; any candidate who does not receive majority support will not be appointed.

Many of the people put forward for appointment are levy payers themselves, but some have been put forward because of the diverse mix of skills and experience they bring from other parts of the industry.

Following the Shape the Future vote, where we asked you what you want AHDB to deliver for the industry, the sector council has carefully considered your responses to shape our plan for the next five years. You'll find out more about that on the following pages.

But who are the sector council? There are 12 dairy farmers, including me as the chair, with different systems based all over Great Britain. It's important to have a broad range of skills to provide challenge and ensure value for the levy payer's investment.

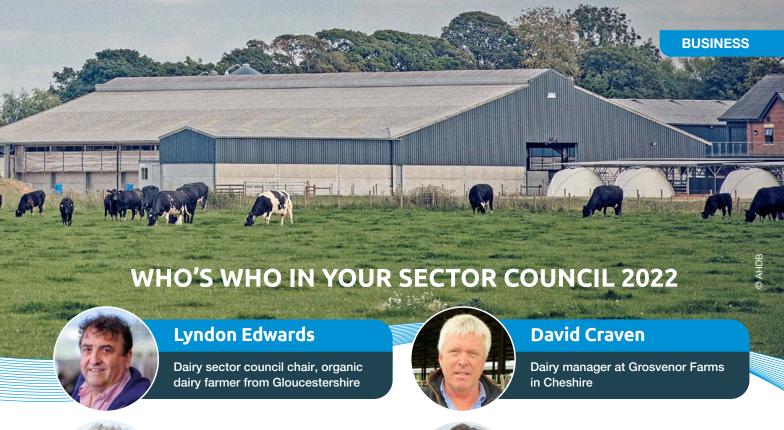
We'll be introducing you more to your sector council members in the next few editions of All Things Dairy, or you can find out more about them now on the Dairy Sector Council page on our website.

Regional field team

In addition to our council members, you also have the benefit of a specialist Dairy Engagement team, which works very closely with the council to make sure your views are represented and AHDB's work is delivered directly to you.

Our field-based knowledge exchange managers work alongside you, industry experts and key stakeholders. Their specific talents, insights and enthusiasm to work across the industry will provide the essential connections between our organisation and others with whom we need to collaborate to achieve our aims. As a pivotal point of contact and by using various methods of engagement, the team can share insights and evidence that is not available anywhere else in the industry.

Contact the Engagement team at: ahdb.org.uk/dairy-engagement-team or get in touch with a sector council member at: ahdb.org.uk/dairy-council





Andrew Fletcher

Contract farming 2,000 cows in Cheshire and Shropshire



Liz Haines

Milking 400 cows in a spring and autumn block in Staffordshire



lan Harvey

Managing a herd of 180 Holstein Friesians and Ayrshires in Cornwall



Mike King

Managing 700 pedigree Holsteins on a 1,325-acre family-run farming business in South Gloucestershire



Rob Nancekivell

Milking 220 cows on a robotic system in Devon



Mary Quicke

Dairy farmer and cheese maker/ exporter from Devon



Peter Rees

Managing a 300-cow dairy enterprise in Carmarthenshire



Scott Shearlaw

Milking 330 mainly crossbred cows in a split block calving system in Ayrshire



Gemma Smale-Rowland

Milking a pedigree holstein herd of 120 cows in Cornwall



Joe Towers

Senior Customer Account Manager at Map of Ag



In Spring 2022, levy payers were invited to share their views on how their levy should be spent. Dairy Sector Council Chair, Lyndon Edwards, explains how the five-year sector plan was put together.

Highest

IMPORTANCE

4.5	Reputation

4.5 Education

4.2 We Eat Balanced campaign

3.9 Exports

3.9 Animal health and welfare

3.8 Market intelligence

3.7 Breeding and genetics

3.6 Environment

3.6 People working in agriculture

Lowest

Scale: 5 high (important) - 1 low (less important)

You were asked to rate the importance of a range of priorities on a score of 1 to 5 (5 being the most important) and the results are shown below.

Levy payers gave the sector council a clear message about the high importance of post-farmgate work such as marketing campaigns, reputational defence, consumer education, and exports. While all areas of work were valued, there was a preference for more of the levy to be directed towards this reputational work.

There was also strong support for areas such as animal health and welfare, environment, and dairy genetics and genomics. These show they are also important to levy payers, especially where activity provides data and evidence to underpin the sector's reputation.

For example, on the environmental side, the data collected for the Dairy roadmap provides proof of our comparatively low and improving impact of dairy production on the environment, which is vital data to inform consumers and government.

Similarly, the independent insight on dairy genetics and genomics clearly demonstrates a reduction in the sector's environmental emissions year-on-year. Likewise, collecting data on antibiotic usage via AHDB's electronic Medicine Hub will be vital in supporting the sector's reputation.

The sector council believes that AHDB's knowledge exchange work is a route for thousands of levy payers every year to learn (through face-to-face meetings or online resources) from other farmers on animal health and welfare, environment, and genetics and genomics. The market intelligence work also helps inform government and consumers of the facts about dairy and boosts the impact of export and marketing activities.

As a result of the Shape the Future results, the sector council wants to significantly change what AHDB does for the dairy sector.

Over the next five years, there will be a focus on what levy payers said was most important. And all existing work has been scrutinised to ensure it aligns with those priorities; where it does not, it will be stopped.

The sector council has factored in your feedback on work areas and individual comments and taken into account the available budget for the next few years, plus the immediate and likely future opportunities and challenges for the sector.

As a result, the sector council has directed AHDB to focus on three themes of work:

Promote our reputation

AHDB should lead in promoting the products that our sector sells at home and abroad, as well as promoting dairy farming.

We should continue to engage with consumers of all ages and promote and defend the reputation of dairy in the media while opening new markets and increasing dairy exports.

Data and evidence to underpin our reputation

We cannot defend or enhance the reputation of the dairy industry at home or abroad without evidence. As part of the work to provide such evidence, the sector council has asked the AHDB Management team to convene industry discussions to identify specific areas where data is needed to support key reputational claims.

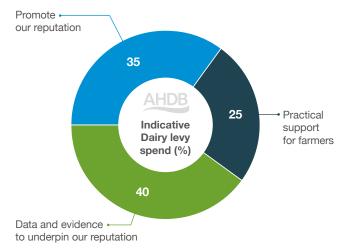
Practical support for farmers

AHDB's knowledge exchange work should focus on answering farmers' key questions on how to make their businesses more profitable and sustainable.

The multi-year relationships with the Betty Lawes Foundation and the Welsh Government have proven fruitful. The council wants to see more collaborations like these, to get robust research onto farms quickly and deliver farmer-to-farmer learning.

In addition, targeted market intelligence will support farmers with forecasts and insights from horizon-scanning work.

The distribution of levy will change to reflect this.



Source: AHDB

Figure 1. Future levy distribution

Next steps and contacting us

Members of your sector council and the AHDB Leadership Team are open to feedback and will be attending the meetings over the coming months, where you can chat to them about the plans.

If you're unable to attend a meeting, we would still welcome your thoughts and questions. Contact a member of our team via:

Website: ahdb.org.uk/meet-the-team Email: shapethefuture@ahdb.org.uk

Call: 024 7601 6237

Download a copy of the full plan at: ahdb.org.uk/sector-plans

For further information, contact:

Lyndon Edwards
Dairy Sector Council Chair
lyndon.edwards@ahdb.org.uk



TV Adverts featuring nine-year-old Nancy and her grandfather will reach over 32 million people when featured on channels including ITV, Channel 4 and Sky, as well as being available to watch on YouTube.

The campaign, which runs through until the end of February, features on video-on-demand and social media channels and in the Guardian and the i newspapers. It is also being promoted in major supermarkets.

Building on previous activity, the campaign continues to shine a spotlight on the positive food choices that consumers can make when doing their weekly shopping, and focuses on three key messages:

- Meat and dairy are a source of Vitamin B12, which isn't naturally present in plant-based foods
- The UK has world-class production standards
- Red meat and dairy from Britain are amongst the most sustainable in the world

Help us tell farming's story

Farmers have already been helping to tell the positive story about British farming on social media. Now, we need more of you to get involved to help provide reassurance about Britain's world-class production standards and our sustainability.

How to support the campaign:

- Give us a like and share on Facebook and Instagram to spread the word about the great work of British farmers.
- Apply to feature in our social media activity to show the care and attention you take when running your farm and raising livestock.



To be considered, simply record a short video clip, no more than 60 seconds, which shows the production standards on your farm and how you're contributing to sustainable farming. And then send it to us via direct message on Twitter or Facebook along with your details.

If you are selected, you'll need to make time for us to visit your farm and be happy to be filmed or photographed to feature across Facebook and Instagram.

You'll be playing a key part in this important campaign to promote a healthy balanced diet.

Find out more about the campaign at: ahdb.org.uk/WeEatBalanced

For further information, contact:

Carrie McDermid Head of Marketing carrie.mcdermid@ahdb.org.uk



Developing overseas markets

Exports of British cheese are growing steadily. Therefore, it's important we continue to showcase our products at overseas events, says AHDB's Lucy Randolph, Senior Exports Manager (Livestock).

A staggering £1.37 billion worth of dairy produce was exported to markets around the world in the first nine months of 2022 – up 37% on the same period the previous year.

According to the latest data from HMRC, between January and September, more than 933,000 tonnes of products were shipped across the globe, up from almost 890,000 tonnes in 2021.

In the third quarter of 2022, exports of dairy to North America were 4% higher than in 2021, at 4,152 tonnes, driven by increased exports to the US.

America is a key target market, and in November US buyers had the chance to sample more than 25 British cheeses at an AHDB reception in Miami.

And earlier last year, we attended America's largest show devoted exclusively to speciality foods and beverages. Summer Fancy Food in New York City attracts more than 47,000 food professionals.



Both events formed part of our ongoing activity in the US to continue flying the flag for dairy – in a bid to put more products in American consumers' baskets. And latest figures show that cheese exports to the US have risen year-on-year, with quarter three up 1% in terms of volume and 21% in value to £19.2 million due to higher commodity prices.

The Far East also remains an important market for dairy exports. In August, we were in Singapore at Food and Hotel Asia (FHA) which attracts more than 40,000 trade delegates looking to supply restaurants, hotels, and the food service sector.

Singapore is a valuable market for UK dairy exports, with £9.7 million worth of dairy products exported in 2021. However, the high-profile event also provides a platform for exporters to showcase dairy to buyers in the wider South East Asia region.



We were joined by five dairy exporters from the UK, who were at the show to promote a selection of cheese and baby formula to potential buyers. And as well as hosting a stand at the event, we also displayed our virtual reality project – enabling visitors to take a journey through the cheesemaking process in the UK.

Our levy payers have told us they value the work of exports, and we are continuing to look at new and innovative ways to grow dairy exports in new and existing markets in the year ahead.

Learn more about out dairy exports work at: ahdb.org.uk/exports/dairy

For further information, contact:

Lucy Randolph Senior Exports Manager (Livestock) lucy.randolph@ahdb.org.uk



All images © AHDB

Reputation factors outweigh cost as a reason for reduction of dairy



The reputation of dairy plays a critical role in consumers purchasing decisions. Although cost is important, it still takes a back seat to health, animal welfare and the environment, says AHDB Consumer Insight Manager, Susie Stannard.

Recent years have seen some shifting in consumption in the dairy category, with some consumers reporting they are thinking about reducing their dairy consumption. This echoes a longer-term trend away from liquid milk and towards processed dairy such as cheese.

At the same time, the emergence of more products entering the alternative space has also put pressure on the sector. Whilst still only making up 6% of category volume according to Kantar, this has grown from 4% in 2019. There are now signs of stabilisation as the cost-of-living crisis bites.

The role of health

Health is by far the biggest reason cited for dairy reduction at 57% (Source: AHDB/YouGov consumer tracker August 2022); this can vary from weight loss to lactose intolerance. It is therefore vital that communications highlight the role that dairy can play in a healthy, balanced diet and remind consumers of the nutrients available in dairy from calcium and protein to vitamin B12.

Health can come under pressure when the economy is weak. We are seeing signs that health is becoming slightly less important over time, but it remains the biggest reputational factor.

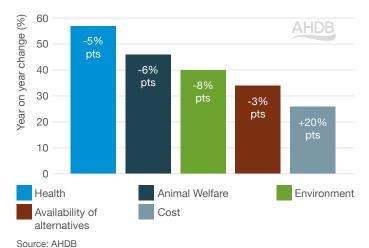


Figure 1. Reasons for thinking about reducing dairy consumption

Q40: What has made you think about cutting back on dairy products? (Aug 22)

YouGov

Animal welfare

Animal welfare concerns have been consistent over time as a driver for dairy reduction. Pressure groups see this as an emotive subject that is easy to tap into with exposé videos and misrepresentation of the industry. Forty-six per cent of consumers cutting back are doing so for welfare reasons.

Specific welfare issues for consumers range from the importance of outdoor access, the overuse of antibiotics and cow-calf separation (and the fate of bull calves) to more health-related issues such as lameness and mastitis. Mutilations such as dehorning are also of concern when prompted – see Figure 4.

Frequently consumers have been misinformed by pressure groups about British production standards. For example, 48% of people are concerned about the use of artificial hormones in farm animals and antibiotics in British food when in fact, the use of hormonal growth promotants in meat production has been banned in the European Union since 1989 – and has been incorporated into UK law recently as part of its withdrawal from the EU. But only 30% of consumers are aware that UK farmers are not permitted to use growth hormones (Source: AHDB/Blue Marble Aug 2021).

There is an important role to play in tackling untruths and misinformation spread by other parties. AHDB has played a key role in this, as can be seen by the response to misleading advertising by both Oatly and Meatless Farm.

The environment

Forty per cent of consumers reducing their dairy consumption are doing so for environmental reasons. Five years ago, around two-thirds of consumers felt that dairy farming was good for the environment; in recent months, this has dropped to less than half. We have seen some relief here more recently.

As consumers are more concerned with day-to-day expenses, we have observed less attention being paid to environmental concerns. Therefore more positivity around dairy farming. However, the majority of people (63%) feel they consider the environmental impact of the food that they eat, so we should consider the reprieve to be brief (Source: AHDB/YouGov Aug 2022).

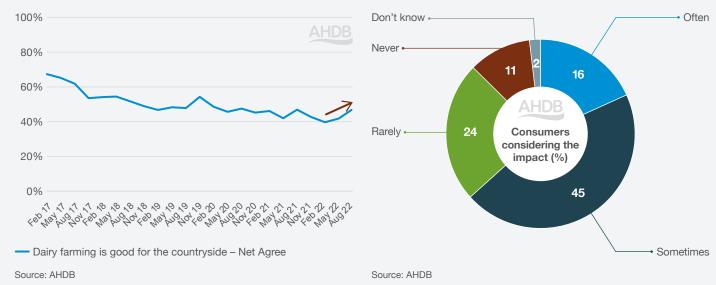
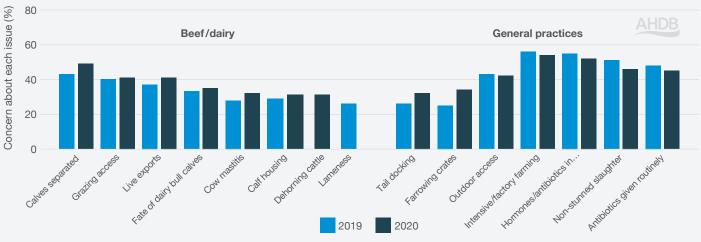


Figure 2. Do consumers feel dairy farming is good for the environment?

Figure 3. Consider environmental impact of food eaten (Aug 22)



Source: AHDB

Figure 4. There are a range of welfare issues that consumers are concerned by - but growing awareness about some specifics when prompted Q28: Looking at these specific concepts, terms and practices related to farming please state your position on each of these topics – I heard about it before today and I am personally concerned about it Base all respondents (1500) *List is NOT exhaustive

According to a Blue Marble study in September 2022, 19% of consumers believe farming in the UK has a negative impact on the environment. Awareness of the net zero initiative is also low amongst consumers (24%), showing that there is merit in communicating environmental initiatives such as net zero and tree planting on farm to highlight progress being made by the sector.

Retaining trust in the industry

Ongoing research by Blue Marble, in conjunction with AHDB, has consistently found that farmers are the most trusted part of the supply chain, head and shoulders above retailers, food processors, and government agencies.

This trust is an incredibly valuable commodity and forms part of the social 'license to operate' that farmers enjoy. We as an industry must prioritise protecting that consumer trust and tackle issues that could negatively impact dairy's reputation as they emerge.

Find out more about our consumer insight work at: ahdb.org.uk/retail-and-consumer-insight

For further information, contact:

Susie Stannard Consumer Insight Manager susie.stannard@ahdb.org.uk

Food – a fact of life in the classroom

Free education resources are available to all young learners with our popular education programme, Food – a fact of life, with the British Nutrition Foundation. **AHDB Senior Education Manager, Elsa Healey, explains.**



Free education resources are available to all young learners with our hugely popular and effective education partnership programme, 'Food - a fact of life', with the **British Nutrition Foundation.**

Originally set up by the British Nutrition Foundation over 30 years ago, and with AHDB strengthening the programme four years ago, Food - a fact of life now offers over 2,000 free educational resources to teachers of students between three and 16 years of age.

This collaboration combines the nutrition expertise of the British Nutrition Foundation with our farming expertise to provide evidence-based resources and training to teaching professionals across the UK.

Last year, as a result of using resources from Food - a fact of life, 85% of pupils in the UK were more informed about where food comes from, and 88% of pupils were more informed about healthy eating.

Forming part of our strategy to protect and promote the reputation of British agriculture, we focus on developing accurate and up-to-date educational resources with the aim of reaching and informing consumers of the future.

In 2021 alone, resources including activity packs, guizzes. lesson plans, presentations and worksheets were downloaded 1.3 million times.

Overall, almost 1,000 educators attended events, workshops and webinars last year, covering topics such as cheesemaking and butchery, with 80% using the training to update their own lesson plans.

Regional conferences will be held this year, offering teacher training to build confidence in delivering classes on food and farming.

The programme meets all UK national curricula and alleviates some of the increasing time and budget pressures faced by educators. It focuses on providing life skills in nutrition and healthy eating, practical cooking skills, and understanding where food comes from.

Amy Bergiers, a primary school teacher at Nantgaredig Primary School, said: "I can honestly say that Food - a fact of life makes life so much easier for teachers. I think that all schools should take advantage of the programme. The website is very much a one-stop shop and it's clear the resources have been written by people with a real understanding of the subject and what works in the classroom."



Dreamstime (6081575)

FOUR WAYS FOR FARMERS TO GET INVOLVED IN EDUCATION

If you're looking to engage with your local school, AHDB is here to help. We provide tools and resources that help you educate schoolchildren about farming and where food comes from.

There are four different ways farmers can support children in learning more about farming:

Help your local school or community find the right resources by sharing details of 'Food - a fact of life' and Countryside Classroom.

'Food - a fact of life' promotes knowledge and skills on where food comes from and healthy eating, as well as supports young people to develop the life skill of cooking. The easy-to-use resources are free to access and compliant with the national curriculum. The education programme is delivered as part of a partnership between AHDB and the British Nutrition Foundation.

Countryside Classroom helps teachers find resources and places to visit and provides schools with support on food, farming and the natural environment. The website covers early years, through to 16–18-year-olds and has resources for every subject from art through to languages and science. The resources are managed by Linking Environment and Farming (LEAF) in partnership with industry organisations, including AHDB.

Sharing the resources in your community or on social media can help.

Use our online ordering form to receive printed resources or download digital versions

To help engage the next generation, download or order our latest set of posters, 'farming food for you', to share with your local school. These posters show life on the farm, how animals are reared and cared for, and how crops are grown and harvested. Additional resources available include stickers and educational leaflets.

Speak to schools directly with Farmer Time

Run by LEAF, Farmer Time helps you connect to classrooms directly by holding a live chat with them. It provides a great opportunity to talk to the next generation of consumers about where their food comes from.

Children chat with their matched farmer through FaceTime or Skype to discuss ideas, ask questions, share knowledge and gain a 'real-time' understanding of the issues farmers face every day.

Host education visits to your farm by becoming CEVAS accredited

CEVAS is an accredited learning programme for farmers interested in providing education or therapeutic (care farming) experiences at their farm. CEVAS-trained farmers welcome 500,000 schoolchildren every year.

There are two routes available - either education or therapeutic. While the former is aimed at schools, the latter covers a wide range of visits. On top of this, becoming CEVAS accredited counts towards BASIS and Dairy Pro.

To find out more visit: ahdb.org.uk/education.

For further information, contact:

Elsa Healey Senior Education Manager elsa.healey@ahdb.org.uk

Measure and monitor: why record on-farm antibiotic use

Developed by AHDB, the Medicine Hub helps dairy, beef and sheep producers monitor and compare medicine use and tackle antimicrobial resistance. **Charlotte Grime, Engagement and Communications Manager for Medicine Hub,** explains more.

You have probably heard about Medicine Hub, the industry-wide initiative that is setting out to gather medicine data from cattle and sheep enterprises in the UK. This information is really important to demonstrate to customers, processors, retailers and international trading partners, the high standards that farmers work to throughout the country.

"Producers in the UK adhere to some of the most rigorous and robust production standards around and work hard to achieve high levels of health and welfare as well as low antibiotic use, something the industry is rightly proud of," says vet Mandy Nevel, who works at AHDB and has been instrumental in the development of Medicine Hub.

"However, even though individual farms must record medicine use, until now there has been no central online resource for doing so at a national level, something that is set to change with Medicine Hub. And it's worth noting that even if you have used no antibiotics in the last calendar year, this information is important to capture."

Vets, together with farmers, set ambitious targets for antibiotic use that have been adopted by the Responsible Use of Medicines in Agriculture Alliance (RUMA) targets task force. For dairy, a target of 95% of UK farms centrally reporting antibiotic use by 2024 has been set, something that is ambitious but realistic, provided the industry acts now.

Some milk buyers already include this requirement in their contracts with farmers. Dorset dairy farmer James Yeatman supplies the Tesco Sustainable Dairy Group and worked with his vet, Tom Clarke of Synergy Farm Health, during March to upload the herd's data onto Medicine Hub.

In 2022, Tesco was the first retailer to ask farmers to work directly with their vets to upload records to Medicine Hub. Tom Atkins, Tesco Agriculture Manager for dairy and beef, explains why:

"Tesco is a strong supporter of Medicine Hub, and we've encouraged all of our Tesco Sustainable Dairy Group farmers to use it. By reporting their usage, TSDG farmers are helping to drive industry change in the responsible use and reduction of antibiotics."



66 It really brought home to me how important it is to protect antibiotics and prolong their efficacy for human health

Grange Farm is 300 hectares near Pulham and has been run as a closed herd for 30 years. James has a milking herd of 400 averaging 10,500 litres and runs around 200 followers as well. The herd antibiotic use is very low, with selective dry cow therapy meaning only 5% of cows receive an antibiotic at drying off and mastitis treatments during lactation are also very low. Overall, antibiotic usage for the last year has been around 5 mg/kg, significantly lower than is typical in UK dairy herds.

"We have been passionate about monitoring, measuring and reducing antibiotic use for over 10 years and have worked hard to reduce use," says James. "A family member contracted Lyme's disease and had to have three weeks of daily 100ml intravenous antibiotics to help recover. At the same time, due to the extra work and stress on me, due to the extra running about while he was in hospital. I managed to contract pneumonia, which also meant some pretty heavy-duty antibiotic therapy.

"It really brought home to me how important it is to protect antibiotics and prolong their efficacy for human health," James explains.

Vet Tom Clarke adds: "We have been working closely with James and his team to target the underlying causes of disease and reduce the need to use antibiotics. This has been a mixture of management activities: working on the milking routine, managing on-farm mastitis culture system to triage treatments, improving the cubicle and cow/calf shed environment, supporting Charlie King, the farm's nutritionist, and improving transition management for a healthier cow after calving."

The benefit of monitoring antibiotic use at the farm level is the ability to compare year-on-year how improvements made on farm directly reduce antibiotic use. "This internal benchmarking is a really helpful motivator for change on farms and Medicine Hub will allow even more useful comparisons within vet practices to demonstrate how clients on equivalent farming systems compare to each other," Tom explains.

"It's a real team effort here at Grange Farm, with Tom regularly involved in planning and decision-making alongside our herdsman, Gary, and me," says James.

"When it came to Medicine Hub, we could immediately understand its relevance and importance to both the industry as a whole, in order to demonstrate and prove responsible use and, separately, for our herd," he says. "Gathering the information means that records can be interrogated to see where antibiotics are used and why. If needs be, management can be tweaked to make improvements here and there as a result. Understanding when it is ok not to treat is as important to us as understanding when treatment is necessary."



Tom Clarke, Synergy Farm Health

Tom Clarke explains the process: "The medicine use data for the farm is transferred onto Medicine Hub via the vet practice's computer records. The software can share data with Medicine Hub making it hassle-free for the farmer and meaning that the practice can upload all client data, once the appropriate third-party permissions have been granted.

"We are often asked by clients about the data - who gets to see it, where is it shared and so on. Only you and your vet can access your account and see all the information; beyond that, anything reported by Medicine Hub is aggregated and anonymised. It is always controlled by the farmer and will only be shared onwards if specific permission is given for that to happen," Tom Clarke concludes.

Learn more about Medicine Hub at: ahdb.org.uk/medicine-hub

For further information, contact:

Charlotte Grime

Engagement and Communications Manager (Medicine Hub) charlotte.grime@ahdb.org.uk

IMPROVING FERTILITY

in block-calving herds

Block-calving herds are known for their good fertility. However, data shows many are failing to meet Key Performance Indicators (KPIs), so they aren't as efficient as they assume, explains AHDB Knowledge Exchange Manager Shirley Macmillan.



Managing block calving herds needs a clear focus on getting cows back in-calf because farmers know that the tighter the block, the longer the recovery time cows have post-calving. Herds get more days in milk, heifer replacements are closer in age groups, and there is less human fatigue at the tail end of calving.

Yet a snapshot of the block-calving businesses taking part in our fertility workshops show that only 25% of them are achieving key fertility targets. Three major areas for improvement are six-week in-calf rate, conception rate, and heifer fertility, according to vet Dave Gilbert of Horizon Dairy Vets in Shropshire, who analysed the figures supplied by 100 herds (50:50 split between spring and autumn calving).

Not only are these businesses missing out on farm profit but Dave points out they also risk the efficiency and lifestyle benefits that are the reason behind calving all cows in 12 weeks: "Research by Teagasc in Ireland calculated there is a saving of £5-6/cow for every 1% improvement in the six-week in-calf rate so, for instance, a 300-cow herd that improves by 5% could gain £7,500 for that business," he explains. "If a spring block starts to slip, it means cows are in-milk later in the year, requiring more supplementary feed at a higher cost. Lifestyle and workload are also important when there are challenges in recruiting and retaining staff."



He believes many farmers will be unaware of the actual performance of their herd because they don't collect and review annual performance data consistently, nor understand how to calculate KPIs. "You can't improve if you don't know what you're doing wrong, it will be just a random guess," he says, adding that software packages now make data analysis quick and easy.

In the AHDB data set, Dave reports fewer than 25% of herds were achieving the six-week target of 78% (Figure 1). "The six-week calved rate is the KPI that ultimately drives business because cows need to be calved and milked. We use the six-week in-calf rate to make management changes before the start of breeding so we are in time to have an effect."

To increase the proportion of cows that are back in-calf by six weeks, he says it's important they have enough recovery time after calving. Other influences include nutrition, body condition score and infectious disease. Practical aspects such as heat detection accuracy. Al technique and semen management all contribute to how many cows are identified, served, then conceive.

While submission rates in these herds were good in the first cycle, Dave found that conception rates were only 51% instead of a target of 60% (Figure 2). This is where a slapdash approach to inseminating cows won't help. It's not just about putting semen in the right place, he says, but also how you manage the product. Has it been stored and thawed correctly? How is it handled between flask and cow?

"I've seen farms where the flask and handling race are 200 metres apart and people are walking back and forth

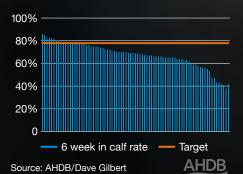


Figure 1. Six-week in-calf rate



Dave Gilbert, Horizon Dairy Vets

to Al cows. The temptation then is to thaw multiple straws at once. We also need to consider the stress on cows of drafting them at morning milking and holding them without food or water until they are inseminated.'

Of biggest concern is that 75% of the herds with first lactation heifer data are failing to achieve a six-week in-calf rate of 90% (Figure 3). "Heifers are your future, and they haven't repaid their rearing costs until at least their second lactation," he points out. "People know heifers are their most valuable asset, but don't plan to make sure they are on track. How many farms routinely weigh replacements? Too often growth is judged by eye and the focus is on health or minerals. Problems then happen when block-calving herds serve heifers based on a timeline, rather than a target weight."

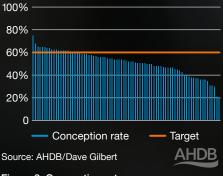


Figure 2. Conception rate

Dave's key message is to review fertility performance six months before mating starts. This gives enough time to alter management - such as changing body condition - to have a real impact. And he thinks it's essential to involve the whole farm team: "Have a meeting, which includes staff and the wider team (vet, nutritionist, consultant), to work out where you did well and not so well. Get their ideas of what to do differently next time and put together an action plan."

He cautions, however, that fertility progress is slow, taking 3–5 years, and involving front-end loading the block with heifers, while slowly clawing the tail-end cows forward, eventually culling animals at the back. "Block calvers may be good at fertility, but farmers shouldn't be complacent. You need to keep doing this every year to keep on top of a calving block because there are always subtle changes in the team, what you feed and the weather. Even a successful block calving herd needs tweaking."

For more information, download the InCalf guide for GB farmers with block calving herds from our website at: ahdb.org.uk

For further information, contact:

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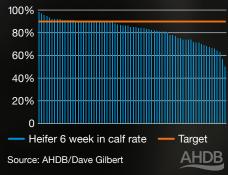


Figure 3. Heifer six-week in-calf rate

Optimising herd management with metabolic profiling

As part of the Strategic Dairy Farm programme, the team at Potstown looked at how metabolic profiling can help fine-tune the performance of their herd and achieve the margins they require, explains Senior Knowledge Exchange Manager Doreen Anderson.

With margins tight, are you optimising the forage, feed, and performance of your dairy herd? This is a question Strategic Dairy Farm host, Gareth Owen, of Potstown near Lockerbie, has been seeking to address.

Working with Alastair Macrae at the Dairy Herd Health and Productivity Service (DHHPS) at the University of Edinburgh, Gareth has undertaken metabolic profiling of his 255 strong herd to understand more about what his cows need from their diet.

Metabolic profiling can be an efficient and helpful tool to assess the nutritional and health status of your herd. It consists of blood testing cows within representative groups in the herd to measure levels of key indicators, providing information about the protein, energy, and mineral status of your cows. Results can be used to help tailor your feed programme to your herd's needs, optimising efficiency and reducing waste.

At Potstown, Alastair has been working with the farm's vets, Ark Vets, who took blood samples from three groups of cows (early lactation, mid lactation, and dry cows) for the DHHPS to analyse. From this, he looked at the levels of beta-hydroxybutyrate, glucose, and non-esterified fatty acids (NEFAs) to assess the energy balance of the cows.

"If we look at the freshly calved cows in the early lactation group at Potstown, we can see that they were struggling with their energy levels. While they should be metabolising reserves, the results indicated that they were doing this at levels over and above what we would have expected," says Alastair.

Studies have demonstrated the impact that this can have on yield. "We would expect these cows to be producing around one or two litres a day less during lactation," says Alastair. "American studies have also shown that cows with similar results would be around four times

more likely to get metritis or a twisted stomach and about 15% less likely to get back in calf."

However, looking at the mid lactation cows told a slightly different story and could help shed light on the issues with the early lactation group. "Some of these cows were right on the cusp of what we would want to see. But they were still milking well, so this wasn't really a cause for concern," says Alastair. "The fact that this group were doing so well with their good energy results would indicate that there is little fundamentally wrong with their base ration. If the cows are eating enough of it and digesting it properly, the diet is working well."

The dry cows also returned largely positive results. "When we first tested these cows in January 2022, the results did indicate that there was a problem with the energy, mineral and protein content in the pre-calving diet." This was put down to the amount of unchopped straw included in the dry cow ration affecting pre-calving intakes. "Gareth was able to amend the diet and remove the excess straw," says Alastair, "and by the time we tested the cows in March, this group were doing much better."

Looking at the results as a whole, Alastair can get a clear understanding of where Gareth needs to focus attention to ensure he is getting the most out of his herd. "The fresh calvers are short of energy, but the issue is not a lack of energy in their diet. Nor is it starting with the dry cows. So, the problem must be with freshly calved cow intakes or digestion."



Gareth Owen, Potstown Farm

FARM FACTS

- All-year-round calving herd of 255 cows and 220 followers
- Half the herd are pedigree Holstein and half are pedigree **Jersey**
- Cows are fully housed and milked via robots
- 450 acres, of which 325 is grass, 90 is trees/woodland and 45 is for cropping
- Average 9,000 litres per year with 4.8% butterfat and 3.6% protein

There are several factors that could be affecting the feed intakes in the early lactation group. At Potstown there is plenty of space at the barrier, but Gareth has considered whether the team needs to be pushing feed up more regularly. They currently do so every two hours between 7:00am and 9:00pm.

The amount fed may also be something to consider. The team was feeding the same number of portions as cows currently in the milking herd. "I'd recommend feeding three to four portions more than the number of cows you have," says Alastair. "I'd then usually expect between 3% to 5% refusals, assuming that these refusals will then be fed to youngstock or heifers."

Moving forwards, metabolic profiling is helping Gareth and the team at Potstown fine-tune their feeding practices and build a greater understanding of how the herd can produce the milk quality, yield and margins they wish to achieve. It is a great tool to have in the toolbox for better understanding the needs of the herd.

Learn more about our Strategic Dairy Farm programme at: ahdb.org.uk/strategic-dairy-farms

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A successful weaning programme reduces stress, disease, and ensures dairy calves maintain target growth rates so they will enter your herd at the optimum time. Cows spend half their time ruminating, so developing a calf's rumen is critical if you want them to utilise energy effectively in their adult life.

Initially, calves are dependent on milk as a single energy source, but as they mature, their diet will be made up from different types and sources of food. Their rumen won't be fully functional until at least six months of age and will only reach adult capacity at around 13 months.

Unlike the suckle reflex, eating solid feed is a learned response involving a process of sampling different food types, so how that food is presented will have a big influence on how likely they are to eat it.

Introducing forage into their diet helps stimulate the cudding action and saliva production to balance pH since a heavy starch diet can lower rumen pH and cause acute acidosis. Forage also acts as a bulking agent and helps stretch the rumen and increase capacity.

It takes calves three to four weeks to start to get energy from solid feed, so introducing the starter feed later delays utilisation of energy from it. Muesli or pellets are good starter feed options, but it's more important to consider how it's

66 Cows spend half their time ruminating, so developing a calf's rumen is critical if you want them to utilise energy effectively in their adult life

presented, and whether there is enough feed space and access to water.

The decision about when to wean should be based on the amount of concentrate they're eating, not their age. At a minimum, it should be one kilo per head and ideally one and a half kilos. This ensures that there has been adequate rumen development for the calf to cope with the gradual reduction in milk from the diet.

Measuring and monitoring are key; either working out the weight gain between two points in time or assessing whether you've hit target weights.

Base any decisions on weighing multiple calves and be wary of averages; they can be misleading due to significant differences in growth between calves. Knowing whether you've hit the target enables you to identify underachievers and how far they must catch up.

A good rule of thumb is to measure at around four weeks of age because growth will all be based on milk. Then measure up to the point of weaning, followed by post-weaning four weeks later, as this will indicate how well the rumen is developing. Look at other areas too, such as cases of pneumonia, as this can indicate the level of stress in your calves.

There are financial consequences with underperforming calves. The aim is to calve down at 22 to 24 months of age when they're between 85% and 90% of their adult body weight in the third lactation.

Remember, it's likely to be more expensive to make up any weight deficits at an older age, so investing in your calves at an early age and getting them off to a great start in life will deliver better results.

Find more tools and resources on calf management at: ahdb.org.uk/knowledge-library/dairy-calf-management

For further information, contact:

Jenny Gibbons Senior Animal Health and Welfare Scientist jenny.gibbons@ahdb.org.uk



TOP TIPS FOR WEANING SUCCESS

Wean calves based on starter intake

The recommendation is to wean calves when. for three consecutive days, they eat at least:

- 1 kg of concentrate if calf starter is >22% crude protein or,
- 2 kg of concentrate, if calf starter is <22% crude protein

Gradually wean by reducing milk over a number of weeks

Weaning should be done gradually by reducing milk over a period of 7-14 days. This will increase concentrate intakes, avoid a growth check after weaning and minimise weaning distress. Reducing milk can be done by reducing the volume of milk fed per feed and/or reducing the number of feeds per day.

Avoid stressful situations such as disbudding or regrouping at the time of weaning calves

Stress at weaning affects a calf's immune system for at least two weeks after weaning. This can make calves more susceptible to disease, particularly pneumonia, and can reduce growth rates. To reduce stress, make no changes to housing, feed, water, or social groups for two weeks after weaning. Also, avoid stressful procedures at/around weaning,



Herd health is fundamental to the profitability of every dairy farm. Keeping animals in tip-top condition can be complex - from vaccinating the herd to maintaining a stress-free environment. But seeing a herd thrive, whether through increased milk production or healthy youngstock, is one of the most satisfying and rewarding experiences for any farmer.

HerdAdvance set out to help Welsh dairy farmers lift herd profitability and performance by improving disease prevention and control.

From autumn 2018, farmers were given the opportunity to tap into support to improve their awareness of disease control and to also put in place measures that protect herd health and welfare. Support ranged from Johne's quarterly testing to regular mobility scoring.

Each farm signed up to engage with HerdAdvance for a three-year period. At the outset, they were assigned an AHDB animal health knowledge exchange manager (AHKEM) who worked with the farm on a one-to-one basis for the duration of the three years.

The first visit by the AHKEM involved collating general information about the farming business and system, as well as technical data relating to the herd's health and welfare.

66 Data from Year 3 of the five-year programme shows a significant reduction in disease prevalence especially when it comes to mastitis and lameness incidences on participating farms

Following the initial data collection visit, a two-hour funded vet meeting was held where the AHKEM, vet and farmer would discuss the data gathered to get an understanding of the herd's health and performance.

These meetings would involve updating the farm's Herd Health Plan and setting out three priority areas for the farmer to focus on. The AHKEM would then develop the priority areas into a Herd Action Plan, with steps for the farmer to follow.

Over the three years, a maximum of four sets of technical data were taken from the farm, from the baseline to Year 3. By repeating the data collection visits annually, the project has been able to track and benchmark performance, allowing analysis of how HerdAdvance interventions have helped businesses to better record data and make positive changes to their herd management.

Figures are now emerging that show how proactive animal health planning is making a difference on participating farms. Data from Year 3 of the five-year programme shows a significant reduction in disease prevalence, especially when it comes to mastitis and lameness incidences on participating farms. These reductions have also resulted in financial benefits for many farms, with improved productivity often resulting in increased profitability.

The number of farmers participating in HerdAdvance has been positive too, with 513 interacting with the project. This means that a third of all dairy farmers in Wales have benefited from involvement.

Depending on the need, farmers were given the opportunity to benefit from a range of funded interventions linked to the designated priority areas. Johne's quarterly testing and management plans proved to be the most popular, along with disease management through bulk milk testing.

HerdAdvance interventions are likely to have long-term benefits

The payback from the HerdAdvance project is likely to continue for many years. Some improvements were almost immediate, but the impact of some measures, such as on Johne's disease, will take longer.

Data analysis of all HerdAdvance farms has shown in the first year the average annual yield per cow increased from 7,333 litres to 7,500, while the calving index reduced from 400 days to 398.

While true Johne's prevalence is slow to change, increased testing and improved awareness of the disease resulted in a 2-3% average increase in cows testing positive by the second HerdAdvance data gathering visit.

On average, by that second visit, milk production increased in these herds from 7,200 to 7,500 litres/cow/year. This could be because of improved detection of Johne's disease and more proactive culling of low-yielding Johne's positive cows.

For farms targeting a full economic net margin of 4.8ppl (AHDB 2020), this increase of 300 litres is likely to result in a financial benefit of £14.40 per cow per year.

Following the third data collection visit there was a reduction in the average incidence rate of clinical mastitis reported; a reduction of three cases per 100 cows per year. Applying a cost of £313 to a case of mastitis represents a saving of £939 per 100 cows per year.

A focus on improving foot health yielded a major financial benefit for many farms. The data showed a significant reduction in the average reported incidence of lameness, with the rate down by two cases, from 20 cases per 100 cows to 18. When a cost of £323 per case of lameness is applied, this improvement in foot health represents a saving of £646 per 100 cows per year.

Find out more about HerdAdvance at: ahdb.org.uk/herdadvance

For further information, contact:

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NEWS & UPDATES

Dates for your diary

Here are some of our exciting events coming up over the next few months:

February

- 1 February Metabolic profiling: Millands Farm, Ayrshire
- 2 February Managing mastitis: The Farm, Shropshire
- 8 February Mapping mastitis: Willow Tree Farm, North Yorkshire
- **14 February** Managing heifer transition with Professor Alex Bach: Webinar
- 15 February HerdAdvance: Webinar
- **15 February** Dairy research roadshow: Coleg Cambria, North East Wales
- 20 February Dairy research roadshow: Cornwall
- 21 February Genetics and genomics: Glasgow
- 22 February Genetics and genomics: **Dumfries**
- 22 February Lameness: Carlisle
- 28 February Calf health: Cornwall
- 28 February Undersowing maize: Somerset

March

- 3-17 March Heifer management setting yourself up for the future
- 29 March Dairy research roadshow: Yorkshire

For a full list of events and to register your place, please visit: ahdb.org.uk/events

FORAGE FOR KNOWLEDGE

We share key information about growth rates via our Forage for Knowledge newsletter. In 2022 we had over 9,000 subscribers - a mixture of dairy, beef and sheep farmers, consultants, researchers, and industry members. They received the latest regional grass growth and quality figures every week, enabling them to capitalise on the cheapest feedstuff available on the farm and drive profitability and sustainable businesses. Find the latest grass growth data and sign up to Forage for Knowledge at: ahdb.org.uk/knowledge-library/grass

SUPPORT FOR FARMERS

When faced with challenges, it's reassuring to know that there are a number of resources you can access and charities that you can lean on. Their practical advice, guidance and support continue to make a huge difference to many in the farming community. You can find support from money matters to mental health at: ahdb.org.uk/support-for-farmers

PODCASTS

Our Food & Farming podcast was recently voted one of the top three UK farming podcasts. You can subscribe on Apple Podcasts, Google Podcasts and Spotify or listen via our website at: ahdb.org.uk/podcast



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To receive any of our communications by email or post, please sign up on our website for:

- The latest research
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- Disease alerts
- Sign up at: ahdb.org.uk/keeping-in-touch
- Invitations to events
- News on consumer marketing campaigns