The BULLETIN THE NEWSLETTER FOR BEEF AND SHEEP FARMERS



Summer/Autumn 2019

Five new farmers join the Strategic Farms project

Page 3



Lamb. Hits you in the Chops Page 5



The challenges of outdoor finishing Page 10



Final chance for DIY AI course funding Page 4

Getting the most from post-mortems

Deadstock is unfortunately an inevitable part of farming livestock. However, these animals can provide valuable information about the health of the rest of the herd or flock.

Understanding why an animal died enables farmers to take a proactive approach to stock management which can ultimately reduce mortality and improve performance and efficiencies. Post-mortem examinations (PMEs) are therefore a valuable tool in the control and prevention of disease and have an important place in any health plan.

Knowing what's normal, checking for disease or cell breakdown, and knowing

which samples and tests to take to reach a diagnosis is a highly skilled procedure. It's a job for an experienced and knowledgeable individual with access to the right tools and a suitable environment to reach a diagnosis. For best results, all PMEs should be carried out in a fully equipped PME facility by a Veterinary Investigation Officer or pathologist (vets can advise on your nearest laboratory).

However, in some cases, submitting the carcase to a PME facility isn't always possible.

A new manual, **Getting the most out of** on-farm post-mortems: A guide for



veterinary surgeons, will be available to download free from the AHDB website this summer. It's designed to help farm vets perform a post-mortem on-farm when it has not been possible to send the carcase to the laboratory.

A typical post-mortem report will include:

- Diagnosis
- Other findings
- Diagnostics results
- Comment on what this means for the farm and any actions that should be taken

Two factors important for conducting an effective post-mortem are:

1. The fresher the better

Ideally, a carcase needs to be examined within 24 hours of death because cell breakdown begins within minutes.

2. A good history

Providing details about the history of the animal and the herd or flock will help to guide what samples are taken and aid the interpretation of any findings on examination of the carcase.

Monitoring the risk of liver fluke in cattle and sheep

Liver fluke is a parasite that can cause serious disease and in some cases death. With changeable and unpredictable weather and growing concerns over drug resistance, now's the ideal time to review how to prevent, diagnose and treat liver fluke in cattle and sheep.

Fluke is a significant cause of production losses in cattle and sheep across the UK, both in terms of production losses and abattoir liver rejection, estimated to cost £87 per case in cattle and £5.60 per case for sheep. Reviewing how to prevent and monitor liver fluke with a vet and developing a farm-specific plan can pay dividends later on.

For more information on regional forecasts see the NADIS parasite forecast: **nadis.org.uk/parasite-forecast** It's important to remember that although these forecasts are useful, infection will also vary between different farm environments.

Further information on liver fluke in cattle and sheep can be found at COWS: cattleparasites.org.uk, SCOPS: scops.org.uk and the AHDB manuals: Sheep disease directory and Controlling worms and liver fluke in cattle for Better Returns.

The liver fluke requires a mud snail to multiply

Five new farmers join the Strategic Farms project

We're thrilled to announce five sheep farms have joined AHDB's 2019 Strategic Farms Programme.

They are:

- 1. Neil Brown, New House Farm, Ludlow
- 2. Richard Carruthers, Rawfoot, Penrith
- 3. Adrian Coombe, Dupath Farm, Cornwall
- 4. Chris Elkington, The Brambles, Grantham
- 5. Steven Lawson, South Farm, Newcastle Upon Tyne

Joseph Keating, Senior Knowledge Exchange Manager at AHDB, said: "We're thrilled to welcome our new farms on board. We had a large number of applicants this year and it was really difficult to choose only five to participate in the two year programme.

"We began the project in 2017. The 10 suckler farms and one finisher farm have all seen successes, including the implementation of new best practice processes and improved financial performance."

Richard Carruthers (pictured below), said: "I'm thrilled to have been chosen to take part in the project. I've been making changes to the way the farm operates over the past five years and have seen some good results especially with rotational grazing.

"I now feel the business is ready to introduce bigger changes and am looking for new ideas from AHDB and from other farmers in the region. Having support from the Strategic Farm network will help me implement best practice and I look forward to hearing other peoples' views and experiences of livestock farming."

Joseph added: "The first round of events for the new farms will take place from October and will focus on key areas including: breeding, health, grassland management and cost of production. I'd like to welcome back past attendees and would love to see some new faces too."

To find out more and to follow the farms' progress, visit: beefandlamb.ahdb.org.uk/returns/ project-farms/strategic-farms



Final chance for DIY AI course funding

AHDB Beef & Lamb is offering 50% funding towards the cost of a DIY Al course for suckler farmers with 30 or more breeding females. Now in its final year, the programme has seen over 250 suckler farmers successfully trained in Al, encouraging the use of a wider choice of genetics in the English suckler herd.

This year, five new training providers will be joining the existing provider XLVets, giving more farmers greater choice in attending courses around the country. The new course providers are: Embryonics Ltd., a national company; Bainbridge Vets in Askrigg, North Yorkshire; Oakhill Vets in Goosnargh, Preston; The Livestock Partnership in Petworth, West Sussex; and Evolution Farm Vets in Bridgwater, Somerset.

George Burrell farms 200 cattle in Alnwick, Northumberland and attended an AHDB-funded DIY AI course in April 2018 with Bishopton Veterinary Group in Ripon. Last breeding season he used a synchronisation programme to Al 30 cows with a conception rate of 80%. He opted to use Al to save on bull costs and to keep the herd closed to help minimise disease. He also saw it as a way to improve the genetics of his herd and bring in new bloodlines.

George said: "Using AI allows you to make your herd more uniform. Putting smaller bulls on larger cows and bigger bulls on smaller cows brings balance and an even herd. I've found by using a maternal bull on your top 10% of cows to produce your replacements, and a terminal sire of a different breed on the rest of the herd will make the most of hybrid vigour."

When choosing AI sires, George believes accurate EBVs are critical. He added: "The sire of the 30 straws we used last breeding season has over 2,500 pure progeny, all of which have been recorded. Therefore we knew we wouldn't have to calve a cow to him.

Burrell added: "It's already possible to find bulls in the top 1% of the Angus breed for both the Terminal Index and Self Replacing Index for under £20 per straw. Though a good bull will serve 50 cows per year, at £20 per service that totals £1,000. However, you couldn't buy a top 1% stock bull for that price, which shows the impact AI can have in cost savings and improved genetics."

There are now less than 50 funded DIY AI course places left in 2019. To take advantage of the funding, check for course locations or to register your interest visit: **beefandlamb.ahdb.org.uk/** returns/diy-ai-course

66 The course was fantastic and covers everything you need to know in a short space of time. Post-course you're ready to come home and AI the next day. The trouble with AI is often you only do it once or twice a year, but being able to attend a refresher day, which is included in the price, really helps. Plus, in order to keep skills up, I used my cull cows to practice with in the interim.

AHDB's £1.4m lamb promotion proves a real hit

AHDB has launched a new £1.4 million marketing campaign for lamb as industry seeks to further support the sheep sector.

By focusing on lamb's unique flavour and its versatility, the work aims to stem the steady decline in lamb sales and boost consumer attitudes across a number of different target audiences.

Lamb. Hits you in the chops

AHDB has been liaising closely with retailers, foodservice outlets and industry stakeholders to ensure a coordinated approach to support promotion of the sheep sector in the coming months.

The campaign uses various channels, such as billboards, colourful press and radio adverts and innovative social media content to hit different target audiences.

AHDB's marcomms department has called out to farmers to support the campaign and has appointed a number of high-profile ambassadors to help share the message. A huge variety of supporting materials including social media guides, farmgate banners and even branded merchandise is available free to all sheep farmers. To access digital assets or to order promotional items that can be used throughout the lamb season, visit: ahdb.org.uk/marketing

Love Lamb Week will be taking place again this year. From 1–7 September there will be a big push of activity, so make sure you keep an eye out and remind lamb fans to visit: **simplybeefandlamb.co.uk** for recipes, ideas and inspiration.

This marketing activity forms part of a much wider, rolling programme of red meat promotion, covering consumer, trade, work with retailers, health, nutrition and the environment. In 2018/19, AHDB Beef & Lamb invested £9.762m of its income on promotion and PR support for beef and lamb at home and abroad, roughly 61% of its income.

It's not too late to get involved! To become an ambassador, order your free merchandise or to find out more about the campaign, visit: ahdb.org.uk/marketing

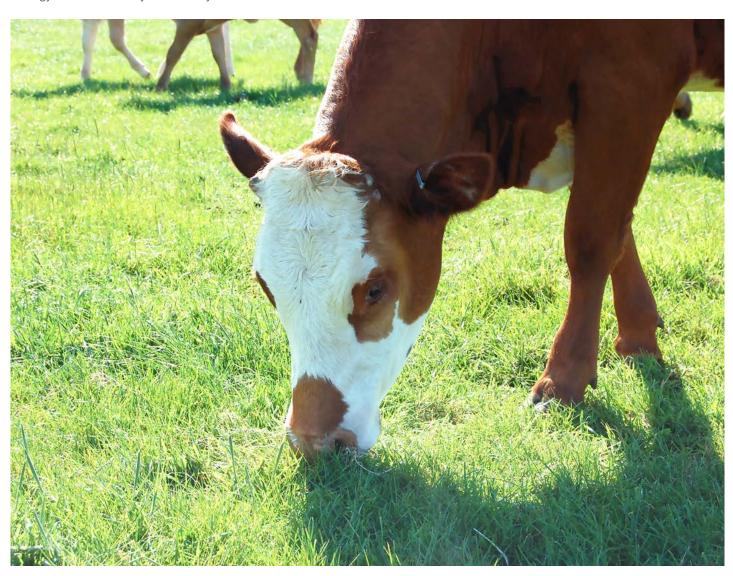
Planning your grazing strategy

Grass can provide 85–95% of the energy requirements for your livestock. When managed well, it has the potential to reduce input costs, particularly bought-in feed. Some farmers finish lambs and cattle purely off pasture and conserved forages, but it depends what is right for your farm and livestock.

There are many ways to achieve sward height or pasture cover targets; one strategy does not fit every farm. It may be that continuous grazing is practised early in the year and then growing animals are grazed using a paddock system.

Grazing at the 2.5–3 leaf stage is ideal. Adjusting the grazing area by splitting fields in half or opening up part fields is a useful step towards achieving higher utilisation. Generally, using a strategy that gives the grass a rest, e.g. moving stock to another field, can increase yield by around 20%. There are many reliable ways to measure the amount of grass available, including sward height in centimetres and weight per hectare in kilograms of dry matter, also known as pasture cover. You can order a free sward stick from the AHDB website.

There are many grazing strategies, such as paddock and rotational grazing, which are detailed on pages 10–13 of the BRP manual: *Planning grazing strategies for Better Returns*



10 new varieties added to the Recommended Grass and Clover Lists

Eight new varieties of ryegrass, along with one red and one white clover, have been added to the 2019/2020 *Recommended Grass and Clover Lists* (RGCL).

Only grasses and clovers that have undergone at least four years of independent testing are included in the lists. Varieties are rigorously tested for factors such as total and seasonal yield, feed quality, disease and persistence before making the RGCL. Siwan Howatson, AHDB Scientist, said: "The lists are an invaluable resource for grassland farmers, enabling them to select varieties that will perform well in a particular system. When thinking about reseeding, the RGCL should be used to check that the varieties being selected are on the lists and are the best available, helping farmers make informed decisions, alongside their seed merchants, about the ones that best meet their needs." In addition to providing information on the varieties, the RGCL also includes a range of technical information for farmers on how they can manage their reseed and maximise the productivity of their grassland.

The 2019/2020 RGCL handbook is included in this edition of Bulletin. Plus, it's also available to download from ahdb.org.uk and britishgrassland.com/rgel



Improving calf outcomes with good nutrition in pregnancy

Research from the University of Edinburgh suggests one-third of beef suckler calves could benefit from improving the amount of antibodies absorbed from colostrum.

Managing cow nutrition during pregnancy can improve the prospects of calves in early life. This has the potential to reduce losses, improve herd performance, health and the farm's potential to reduce antibiotic use.

Calves are born without antibodies (immunoglobulins) which provide immunity to disease and infection. They rely on passive transfer of antibodies from the cow via her colostrum within the first few hours of life to provide protection from disease. When none or too few antibodies are absorbed, calves are at serious risk of disease and death during the pre-weaning period and are more likely to need antibiotics. This is known as failure of passive transfer (no antibodies) or partial passive transfer (too few antibodies).

The research, which was funded by AHDB, showed that one in seven calves sampled received no antibodies and one in three, too few antibodies. Six major risk factors for failure of passive transfer in calves were identified:

- Calves born with assistance
- Calves given assistance with colostrum feeding
- Male calves
- Calves from a heifer
- Twin calves
- · Poor cow energy levels pre-calving

Forty-nine English commercial suckler farms from 16 veterinary practices took part in this study, with blood samples taken from 585 cows and 654 calves for metabolic profiling and serum total protein.

The study suggests farmers are identifying calves at high risk of failure of passive transfer (assisted calvings, males, twins, and those from heifers) and providing them with help, but that these calves may not receive enough assistance.

The study also highlights the importance of good nutrition in late pregnancy, with one in three cows sampled failing to meet their current energy requirements and two in three failing to meet their current rumen protein requirements. Cows in poor energy balance are mobilising body fat reserves at an excessive rate and are at risk of failure to progress during calving, exhaustion during calving, prolapse and delayed return to cycling after calving. Though many farmers are concerned about the mineral status of their herd, the study found good mineral status on the majority of farms sampled. The one exception was magnesium status, which was poor in nearly one in three animals. Cows with low magnesium levels are at risk of grass staggers, slow calvings, failure to calve unaided, a higher risk of milk fever and prolapse.

Recommendations to farmers from the project are that cows should be:

- Body condition 2.5–3.0 at least one month pre-calving
- Fed to meet energy and protein requirements (as per AFRC 1993), particularly in the last month of pregnancy
- Given a high magnesium (10–15%) dry cow mineral to supplement suckler cows in the last month of pregnancy

The project highlights the important role of forage analysis and metabolic profiling in allowing farmers to alter feed rations to meet the nutritional needs of a herd. These are particularly important in late pregnancy. They enable detection of deficiencies in a cow's diet so changes can be made to diets pre-calving to ensure her nutritional requirements are met and her calf gets the best start to life.

New Estimated Breeding Values to help improve results

Results from the third year of the RamCompare project have found that commercial producers can identify the most profitable rams for their production system by using Estimated Breeding Values (EBVs). The latest findings from the UK's national progeny test include new EBVs for carcase traits such as days to slaughter, primal yield and tenderness.

RamCompare is a five-year project that uses nominated Signet-recorded rams from various terminal sire breeds on commercial farms in the UK. The project has now tested 138 rams and over 12,000 of their progeny in one of the largest trials of its kind.

Rams are selected on the basis of their EBVs, which are a direct assessment of their breeding merit for specific traits. Through information collected on their progeny, the project reassesses their genetic worth for traits that are measured on-farm, such as lamb growth rate, ultrasound muscle and fat depth. Abattoir data is then collected from these lambs to produce EBVs for traits farmers are actually paid – carcase weight, conformation and fat classification.

For the first time, an EBV for days to slaughter has been produced – indicating the degree to which sire choice can influence the speed that lambs reach slaughter weight. Over a quarter of the variation seen in this trait can be attributed to a lamb's genetics and there are important genetic differences between rams.

While this has changed the ranking of Signet recorded rams, it has greatly enhanced the commercial focus of these widely used EBVs for producers selecting lambs at a fixed slaughter weight.

For results and project updates, visit: **ramcompare.com**

66 This year, Signet Breeding Services launched the biggest change to its terminal sire recording programme in decades, moving the assessment of carcase traits, like muscle and fat depth onto a weight, rather than an age-adjusted basis.

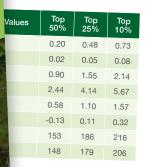
Which is the best ram for your farm?

You can't predict how a ram's progeny will perform simply by looking at it. Selecting the right ram can lift flock profitability by £3–£4 per lamb. So make sure you take the time to find performance recorded rams of proven genetic worth. Sheep farmers will find a leaflet enclosed with more information.

For more information, visit: signetfbc.co.uk



	CHAROLLAIS	CHAROLLAIS		
	Estimated Breeding Values	Тор 50%	Тор 25%	Тор 10%
		0.36	0.79	1.17
		0.00	0.03	0.06
	BREEDING SERVICES	1.06	1.76	2.38
National Sheep Association		2.70	4.54	6.20
		0.73	1.36	1.92
SIGNET BREED BENCHMARKS		-0.04	0.22	0.45
A new approach for 201	9	174	217	255
		150	186	219



s	Тор 50%	Тор 25%	Тор 10%		
	0.20	0.42	0.61		
	0.01	0.04	0.07		
	0.93	1.56	2.12		
	2.34	4.05	5.58		
	0.16	0.67	1.13		
	-0.12	0.10	0.29		
	149	188	223		
	139	171	199		

MEATLINC

Estimated Breeding Values	Тор 50%	Тор 25%	Тор 10%	
Maternal ability	0.14	0.39	0.61	
Litter size	-0.01	0.02	0.05	
8 week weight	1.29	2.05	2.73	
Scan weight	3.21	5.30	7.17	
Muscle depth	0.37	1.10	1.75	
Fat depth	-0.16	0.08	0.29	
Terminal Sire Index	187	236	280	
Maternal Index	141	174	204	
			204	

SHROPSHIRE

SHINE SHITE					
Estimated Breeding Values	Тор 50%	Тор 25%	Тор 10%		
Maternal ability	0.33	0.57	0.79		
Litter size	0.01	0.04	0.07		
8 week weight	1.60	2.15	2,65		
Scan weight	4.20	5.67	6.99		
Muscle depth	0.62	1.13	1.58		
Fat depth	-0.26	-0.06	0.12		
Terminal Sire Index	181	210	237		
Maternal Index	165	189	211		
SOUTHDOWN					
Estimated Breeding Values	Тор 50%	Тор 25%	Тор 10%		
Maternal ability	0.26	0.49	0.70		
Litter size	0.00	0.03	0.06		
8 week weight	1.13	1.70	2.22		
Scan weight	3.29	4.87	6.29		
Muscle depth	0.58	1.15	1.66		
Fat depth	-0.32	-0.04	0.21		
Terminal Sire Index	166	198	226		
Maternal Index	147	174	199		



Overcoming the challenges of dairy beef outdoor finishing

AHDB's outdoor dairy beef project has found careful management of feed can yield profitable cattle despite weather challenges. Reducing purchased feed and wintering costs while at the same time maximising production from homegrown forage has led to some impressive results in work aiming to investigate the feasibility of a low-cost dairy beef production system.

Rebecca Small, Beef Scientist at AHDB, said: "2017/18 was a difficult year to evaluate a low-cost outdoor beef system based on high-quality forage, with both the Beast from the East and the hottest, driest summer since 1976 to contend with. However, the project has shown that outdoor finishing can be profitable even in the face of unprecedented weather conditions."

The project looked at finishing Herefordcross Holstein Friesian and pure Holstein Friesian calves on a fully outdoor system in 2017/18. Calves were reared conventionally and then turned out to graze for their first summer. They were outwintered on fodder beet and then moved back to the grazing platform for finishing in their second summer.

The Hereford-cross and Holstein Friesian steers in this study achieved a net profit per head of $\pounds114$ and $\pounds100$ respectively. Profitability is more impressive when compared on a per hectare basis with stocking levels at 2.5 LSU/ha, with Herefords achieving $\pounds328$ per ha and the Holstein-Friesians $\pounds288$ per ha. The study demonstrates that well-managed paddock grazed grass, well-grown fodder beet and

careful overall management in challenging times can prove profitable. It also highlights the importance of taking immediate action in periods of poor grass covers, i.e. offering good-quality silage or supplementary feed.

The five key management criteria for success under this system are:

- Excellent grassland management, including rotational grazing is required supported by immediate action in periods of poor grass covers, i.e. offering good-quality silage or supplementary feed
- Careful transition management between diets. If the cattle are transitioned poorly, growth rates and health will suffer
- Winter grazing crops should be well planned and set up to ensure ease of management in poor conditions
- Ensure a contingency plan is in place to maintain animal performance, health and welfare
- Minerals should be provided, particularly if grazing brassicas which are low in trace elements

Cattle performance and carcase quality

The profits were achieved despite weather extremes which meant cattle didn't meet their growth rate targets over winter on fodder beet. The drought during the second summer also meant supplementary feeding was required to increase the level of finish on the cattle which increased costs. Despite these challenges, all of the Hereford-cross and 85% of the Holstein-Friesian cattle were finished off grass at a fat class of 2 or better.

The project was led by RSK ADAS Ltd. in collaboration with Harper Adams University with additional support from the Hereford Cattle Society and Dunbia.

For guidance on managing cattle and sheep in challenging weather conditions, see **beefandlamb.ahdb.org.uk/ managing-sheep-cattle-extremeweather**

	Hereford-cross	Holstein Friesian
Age at slaughter (months)	24	25.4
Carcase weight (kg)	321	318
Killing-out %	51.6	50.2
Overall growth rate on farm (kg/d)	0.78	0.75
Fat classification	3–4L	2–3

Review your business in six easy steps

The 60 minute farm review is broken down into six easy steps. When finished it will give you an immediate overview of the strengths and weaknesses of your business and allow you to compare your technical and business performance with other similar beef and sheep farms in England.

Neil Pickard, Knowledge Exchange Manager, said: "Reviewing your business and determining where improvements are possible, could make you more profitable. You can identify if you're not stocking enough animals for your land, spending too much on machinery or not achieving optimum output from calving or lambing, then you can start to make small changes to your business."

You can download and print the form from our website. We've done all the calculation guides for you and signpost you to any extra information you need along the way. In addition, there's an easy to identify green, amber and red format

for you to follow, with possible solutions if you fall in the amber or red categories.

When you've finished your business assessment, you can see how you compare with other similar farms by accessing farm business survey results.

Download the review worksheet here: ahdb.org.uk/knowledge-library/ 60-minute-farm-review

66 Reviewing your business and determining where improvements are possible, could make you more profitable 🗨



Keep in touch!

AHDB is committed to delivering world-class information through the channels most convenient for farmers and growers.

Make sure you don't miss out by checking we have the correct contact details for you.



Do this online by visiting: ahdb.org.uk/keeping-in-touch



Call us on: 024 7647 8694

Or write to us: AHDB CRM team, Stoneleigh Park, Kenilworth, Warwickshire, CV8 2TL

News from across AHDB

Potatoes in Parliament

The AHDB Potatoes Next Generation programme visited Westminster on 26 March. Amid Brexit uncertainty, the group headed to the National Farmers Union (NFU) Westminster office for a political briefing before a round table discussion with seven MPs from agricultural constituencies, including Chief Secretary to the Treasury the Rt Hon Liz Truss MP.

New Monitor Farms bring whole-farm approach

The seven new AHDB Cereals & Oilseeds Monitor Farm hosts appointed in England this year bring a fresh, whole-farm approach to the scheme. All of the farms have multiple enterprises including cereals and oilseeds, and all but one have livestock within the business.

Dairy expands Strategic Farms programme

AHDB Dairy has been awarded £1 million from the Betty Lawes Foundation to recruit an additional eight strategic dairy farms. The funding will enable AHDB to expand the network to 25 farms across Great Britain, further improving opportunities for farmer-tofarmer learning and showcasing best practice on farm.

Strategic SmartHort Centres launch

To address the challenges around labour, AHDB Horticulture has announced the UK's first Strategic SmartHort Centres: Lincolnshire-based propagators, Volmary Ltd. and Herefordshire fruit growers, Haygrove Ltd.

Consultancy, Fedden USP, will lead training to drive business improvement, while sharing insight on practical management and methods of implementing LEAN.

#MuckFreeTruck campaign

Pig producers, processors and hauliers are being urged to ensure livestock lorries are properly cleaned as part of a #MuckFreeTruck campaign.

Launched by AHDB Pork, in conjunction with key stakeholders, the campaign is a response to the threat posed by African swine fever, which is causing huge problems in Asia and Eastern Europe.

Useful resources

We've updated the following Better Returns publications with new information:

- Managing nutrients for Better Returns
- Antibiotic resistance Using antibiotics responsibly
- Feeding suckler cows and calves for Better Returns

We've also introduced some new publications for 2019 on key topics.

- Iceberg diseases of ewes
- Getting the most from on-farm post-mortems

AHDB webinars

Too busy to attend our events in the daytime? If you can't make it on farm, make it online!

AHDB Beef & Lamb runs webinars twice a month from 7–8pm, as we know it's not always easy to attend events in person. The webinars cover a range of topics from health and nutrition to selection and AHDB activity updates.

Some are animal-specific, while others are suitable for farmers of both types of livestock.

What's a webinar?

A webinar is an online meeting. Ours feature a 30-minute presentation by a

BRP+ has a new look!

The BRP+ range includes more advanced technical publications based on industry research – a step-up from the manuals. These online documents will be converted to web pages over Plus, we've refreshed a number of existing publications too. The following titles have all had a new look, but if you've got an older copy, make sure you hang onto it!

- A guide to stock judging
- Buyers' checklists
- Managing ewes for Better Returns
- Sheep and suckler record sheets
- Understanding cattle and carcases for Better Returns
- Understanding lambs and carcases for Better Returns
- The cereals directory

subject expert, followed by a 20-minute slot for questions. And it's worth knowing that anyone watching can ask questions anonymously, because the organiser will ask the presenter on your behalf.

How do I join in?

Our upcoming webinars are advertised on our events page at **ahdb.org.uk/ events** and can be booked by using just your name and email address. To receive email invitations, update your contact details online by visiting: **ahdb.org.uk/keeping-in-touch**

Once you've booked a place, you'll receive a confirmation email. On the day, simply click the link in the email to join.

the coming year, enabling you to find specific technical information even more quickly. The range of titles covers subjects including housing, pneumonia, breeding replacements and grassland management to name just a few.

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