Livestock matters

ISSUE 48
AUTUMN 2018

Beef breeding

Fit for the herd
and fit for breeding

Calf health

A change in colostrum protocol boosts health and growth rates

Sheep scab

Controlling the parasite and preventing reinfection

Lameness and mobility

A look at lameness: the past, present and future

Beef discussion group

Opportunities to learn more, see more, farm better

XL Vets Farm

Welcome to the Autumn issue of Livestock Matters

Gemma Allison
XLVets

the editor

The more observant among you will have noticed we have a fresh new look! After eight great years, Livestock Matters was ready for a refresh and we hope you like it. Although the content of the articles will remain similar we hope the new style will improve the magazine's readability with more space and slightly shorter articles.

Some highlights from this issue include - Sheep scab: diagnostics, dipping, and daring to confront the neighbours. We learn how vet Vet Vicki Fisher of Farm First Veterinary Services, near Abergavenny has been advising her sheep farming clients on the strategies needed to control the parasite and prevent sheep from becoming reinfected.

We also hear how a change in the management of freshly calved cows has improved the health of young calves and boosted growth rates on a Cumbrian dairy farm. Vet Matt Linnet from Millcroft Veterinary Group provides advice and veterinary support to brothers Simon and Mark Allison and their calf rearer Ewelina Teksa. Key elements of the new system are a portable milker in the calving shed which ensures a faster delivery of colostrum, and a 'cuddle box' for the newborn calf.

We hope you enjoy this issue of Livestock Matters.

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Autumn Edition 2018

XLVets is a collaborative group of over 450 farm vets with dedicated support teams, who endeavour to be nationally recognised as the 'quality mark' for livestock veterinary services.

Learn more...

BVD funding announced as BVDFree England turns two

Testing for a disease you can't see poses a challenge for many farmers, but with the launch of the Stamp out BVD project funding testing in England, now is the time to get involved.

The launch of the funded project coincides with two years of BVDFree England, which has seen over 9 % of the national breeding herd join the scheme. To eliminate BVD at herd level, regionally and nationally we need to get more herds testing for the disease and results onto the national database.

Stamp out BVD is a great opportunity for cattle farmers across England. Funding is available for one-to-one farm advisory visits by a vet, allowing farmers to work with their vet to investigate BVD at herd level, with some funding available for testing.

By working with Stamp out BVD and BVDFree England more herds can become free from BVD. Reducing the negative effects of this disease on fertility and herd health and stopping the creation of PI (persistently infected) cattle.

BVD Database

A simple system for promoting and checking the BVD status of cattle tested under the scheme:

Visit **bvdfree.org.uk** and enter an animal's UK number or a CPH on the home page.

Survey findings highlight inadequate vaccine storage on farm

Vaccines are a valuable resource to help produce immunity to disease outbreaks on farm. However, failing to maintain the correct storage fridge temperature has been shown to compromise vaccine effectiveness and consequently animal health.

Recent on-farm research conducted by MSD Animal Health discovered not one farm fridge monitored stored vaccines within the correct temperature range between 2 and 8 degrees Celsius. In a significant number of fridges, the temperature was elevated above 8 degrees Celsius for long periods of time.

Paul Williams, MSD Animal Health UK technical manager for ruminants comments 'When vaccines are stored above 8 degrees Celsius for long periods of time, it dramatically shortens their shelf-life. For example, if you pick up your vaccines from your vet and keep them in the car while running other errands the vaccine will warm up. By the time you get it to the farm it may be too warm and no longer be effective. We recommend always using a cool bag to transport your vaccines and make the journey time to your farm fridge as short as possible.

'A frozen vaccine is something you want to avoid. In the worst cases some fridges we monitored had been at 0 degrees Celsius or below long enough for the vaccine to freeze and become ineffective. When a vaccine freezes the delicate components within it break apart leaving the vaccine completely ineffective and cannot be restored.

Follow the hashtag #FridgeCheck for more information about how to store vaccines correctly.

Show round up

NSA Sheep Event

A great atmosphere at the flagship biennial event of the NSA held on Wednesday 18th July at the Three Counties Showground, Malvern, Worcestershire.

With a theme of 'Thriving in an uncertain future', the one-day business-to-business event provided attendees with information, advice and ideas to safeguard themselves and their flocks whatever happens politically over the coming months and years.

The seminars provided opportunity for all to contemplate a future positively, considering subjects such as stimulating demand for sheepmeat both domestically and internationally, public goods delivered by the sheep sector, and utilising technology within the sector to help businesses thrive.

XLVet members on hand discussed sheep lameness, liver fluke and the preparation of ewes for tupping.

UK Dairy Day

Over 9,000 visitors descended on the International Centre in Telford for the 5th annual UK Dairy Day along with a record number of businesses represented.

Like last year, XLVets sponsored the seminar areas of the event, and we

are extremely proud of two XLVet members: Nathan Loewenstein from Shropshire Farm Vets, and Tom Wright from Lambert, Leonard & May, who both delivered presentations on the day; Nathan's on 'Johne's - Mapping out the future' and Tom's on 'A team's approach to tackling lameness'.

The theme on the FarmSkills stand this year was 'Mastering Medicines', which included discussing how XLVet members are supporting farmers with the Red Tractor guideline changes through delivering FarmSkills Mastering Medicines workshops.

Red Tractor bids to become the flagship for British food and farming

Red Tractor has announced its intent to substantially increase the strength and breadth of its food chain assurance regime in a bid to become the flagship of British food and farming.

In a significant move, Red Tractor announces that it will create a new suite of 'Modular Standards', to sit alongside its current core offering. The new modules will cover areas such as enhanced animal welfare, organic and environmentally sustainable production and will be launched with a consumer-facing labelling system to improve clarity for shoppers.

Red Tractor is also strengthening its farm inspection programme with measures such as the introduction of more unannounced inspections to improve the integrity of the scheme. Red Tractor believes that the changes are a vital component in maintaining the trust of consumers and promoting the high standards of UK farming and food production.

Jim Moseley, CEO, Red Tractor Assurance, says; 'I believe that this is one of the most exciting times in Red Tractor's 19 year history and I am very proud to be leading us through these changes.

'Our vision is that Red Tractor is seen by shoppers, farmers and the food industry as the flagship of British food and farming.

'Red Tractor is already a world-leading assurance scheme; however, we are constantly strengthening our standards in line with scientific advances and consumer demand.

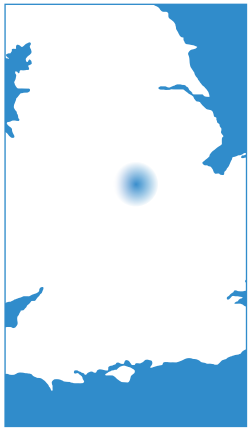
'We know shoppers are increasingly looking for more informed choice and simple signposts to traceable, safe and responsibly produced food, which is why we are looking to extend the remit of Red Tractor.

'Increasing confidence in Red Tractor and the entire UK food industry is vital, particularly as we approach Brexit.'

A continued focus on health for newly set-up organic dairy herd

Farm Veterinary Solutions
Caring for the health of your business

Two years ago, Calvin Williams took an opportunity to set up an organic dairy unit, on a green field site, in a very arable part of the country. He moved with his family from Pembrokeshire to north Nottinghamshire.



Max Hardy
Farm Veterinary Solutions

Here, at Gibdyke Farm, Calvin has put time and effort into sourcing the right type of animal for the farm system, paying attention to their health status. Prevention of disease/parasites has been important for this organic herd.

Helping Calvin with decisions on buying-in cattle, and herd health and fertility, is vet Max Hardy of Farm Vet Solutions. Although there is a 50 mile distance between them, Calvin wanted the services of a vet practice with plenty of livestock experience. So in-between routine visits at key times of the year, regular communication is made by phone and email.

Sourcing cattle

After many years managing spring calving herds, Calvin was clear from the start about the type of cow he wanted.

He explains: 'The overall goal is to make the maximum returns from grass, for a relatively low investment. So cows have to be robust enough to withstand being outdoors all year round, have good fertility, and be efficient converters of grass to milk. They also need to have good feet and longevity.

'The initial plan was to establish a herd of around 400 milking cows whilst we gained experience of the farm's production capabilities.

'Because of the quantity we needed, we targeted our search at grazing herds in Ireland. We also purchased some organic cows from Holland which had never seen grass - they didn't know how to graze to start with!'

Prior to arriving at the farm, animals from each source herd were screened for BVD, leptospirosis, IBR and also Mycoplasma Bovis. Max explains: 'With very few herds completely free of all these diseases, it was important to get as much information as possible before mixing animals.'

More cows were still needed. Calvin looked at some organic grazing herds in Devon, although both he and Max were very wary of the TB risk.

Max explains: 'Gibdyke Farm is situated just inside the edge area for TB, so is subject to annual testing. But with being only a few miles from the four-yearly testing counties we certainly didn't want to be responsible for moving TB into the area.

'So we used the ibTB website to ensure that cows were only from farms that had never had a TB outbreak. Fifty cross-bred cows and seven Hereford bulls were purchased from one source following the all-clear in the compulsory pre-movement tests.

'With the Dutch and Irish cattle, Post-Import TB testing was compulsory through APHA. These

all tested clear after 60 days on farm. To further mitigate the risk from the Devon cows, Calvin then elected to pay for an additional private post-movement testing which was also clear.

Vaccination protocols

'Despite the general good health of these cows, we commonly expect some disease challenge when mixing this number of animals,' says Max. 'So a full vaccination programme has been instigated. All cattle are vaccinated against BVD, IBR, leptospirosis and salmonella.'

'The herd is monitored for Johne's disease and is an NJMP member. Testing has shown a small number of 'highs' and inconclusive results. These cows are now bred to beef, and calved separately. Two cows have been culled.'

Following an outbreak of PI3 viral pneumonia in some of the adult cows, all stock were vaccinated intra-nasally.

A few lungworm cases also prompted a vaccination programme. Max adds: 'Calvin now organises monthly collection of faecal samples from youngstock for analysis of egg counts, and we discuss the results in line with organic principles.'

Calf care

Calving starts in early March, and is mostly complete by the end of April. The calf shed only houses a maximum of 200 calves. So once they reach four weeks of age they are turned out to grass, and receive milk via mobile units.

Calves are fed 'yoghurt-ised milk': all the colostrum milk from Johne's-clear cows is put into a 1,000 litre milk tank, to which live organic yoghurt (bought from the supermarket) is added.

Calvin explains: 'Calves need consistency. This provides a static bacterial culture - it overcomes the variation of raw milk and different temperatures, and ensures the calf has the same culture in its system, day in, day out.

Outdoor milking

Cows are milked in an outdoor 45/90 milking 'parlour'. Calvin explains: 'We simply wanted something that would extract milk from a cow, and would also support a basic feeding system.'

In 2017, yields averaged 5,100 litres per lactation, and 861kg of cake was fed per cow lactation.

'The outdoor parlour can be hard on people and cows. When you're in the pit and cows are around you it's warm, but washing down is a cold job. Good team morale is important, as is being sympathetic to both cows and staff.'

'When the 'beast from the East' came through, we cut back to once-a-day milking on one side only, rigged silage sheets across the other side to give some protection, and installed two gas heaters!'

Staying focused

Now that milking cow numbers have reached 580, Calvin is keeping the herd closed, relying on AI and home-bred sweeper bulls for breeding.

The herd health plan is still evolving. Max explains: 'Tests on bulk milk and bloods give us the information to adjust vaccination protocols. Calvin now only vaccinates the calves for pneumonia.

'Bulk milk and faecal tests revealed some fluke so that was treated for at drying off. With no housing period it is difficult to fully control fluke with the short withdrawal licensed products that kill adults only, so environmental management will be key in the long run.'

Calvin adds: 'Over these first three years, I want to provide as broad a vaccination programme as possible. We are also making a conscious effort to test for everything and build the farm picture. We've done soil analyses, silage analyses, and cattle were blood-tested pre-calving for nutritional status and trace element levels.'

Max adds: 'For Calvin's low input system, efficiency is key. Vet costs need to be spent wisely on preventative measures like diagnostic testing, biosecurity, and vaccination, ensuring cows stay healthy, milk well and get back in-calf.'

Milking Parlour

Farmer - Calvin Williams

Cow tracks have been overlaid with Astro-turf to prevent stone damage to hooves

Agri-environment schemes and flock health

Tree planting and the deliberate maintenance of wet areas of land are both elements in some agri-environment schemes. But while they may enrich the environment, what are the impacts on the health, welfare and performance of the livestock in that environment?

Kaz Strycharczyk
Black Sheep Farm Health

© Woodland Trust

Here, Kaz Strycharczyk from Black Sheep Farm Health outlines some issues for sheep farmers and advises on how to protect sheep health when participating in these schemes.

Kaz says: 'Agri-environment schemes are often a key part of farm income strategy for sheep and beef farmers in Less Favoured Areas. But changes made to a farm's landscape and ground conditions can have a knock-on effect on livestock. For sheep enterprises, they may also be viewed as a barrier to achieving greater efficiency.

'But do they have to be? If carefully planned, they need not be detrimental, and may in fact be of benefit to ewes and lambs.

Flood mitigation and fluke

'Increasingly, upland farmers are encouraged to participate in flood mitigation measures, such as erecting 'leaky dams' (as shown right). However, this may inadvertently lead to the creation of new fluke habitats,' explains Kaz.

'Liver fluke is a major disease of sheep, which can be fatal if severe enough. It has a significant impact on sheep growth and fertility. Carcase quality also suffers through liver condemnation.

A 'leaky dam' used in a flood mitigation scheme on Alwinton Farm, Northumberland. The stream edges have been planted up with willow saplings. © Graham Dixon

'The fluke lifecycle requires the mud snail as an intermediate host. Ideally the wet ground would be drained to break the sheep-snail link, but this is often impractical and directly conflicts with bog creation schemes.

'Another potential issue of having wet ground is that it encourages the survival and spread of bacteria causing lameness, including footrot and CODD.

So how might these risks be overcome? 'Vets will advise farmers to avoid grazing sheep on wet areas by fencing off the wettest margins and giving them over to ponds or tree-planting.

'If grazing sheep on high-risk pastures is unavoidable, farmers should carefully monitor the weather - the wetter it is, the higher the mud snail population and risk of fluke disease.

'Parasite forecasts are also very useful - National Animal Disease Information Service (NADIS) provides a monthly forecast which predicts the severity of fluke challenge on a regional level.

'A changing climate has made fluke less regional and less seasonal than it once was, with more sheep vulnerable to infection for a greater period of the year.

'Farmers should be aware of the fluke status in their flocks. Various tests are available to diagnose fluke. The most appropriate test depends on the time of year, age of sheep and signs of disease. Your vet will be able to advise you on the best test for your situation.

'For those finishing lambs, kill sheets provide a free source of useful information. Lots of condemned livers is suggestive of a fluke problem.

'Where sheep or lambs are being grazed in fields prone to fluke problems, then collecting and submitting faeces for regular testing will enable the situation to be monitored. This way flukicides can be used in a targeted way, reducing unnecessary medicine spend as well as reducing selection pressure for resistant fluke.

'When buying in stock, consider that they may carry fluke which are resistant to triclabendazole - the active ingredient in many fluke products. These bought-in animals should receive fluke treatment as part of quarantine; vets will be able to advise on a specific treatment strategy.

'Strategies for control of fluke and lameness should be part of the flock health plan and be reviewed at least annually. Before embarking on agri-environment schemes, consider how changes to the farm environment may alter the diseases your sheep and cattle encounter. The aim is to make agri-environment schemes work for the livestock rather than against them.

Making trees work for sheep

'Tree planting and sheep production are often framed as antagonistic. However, when carefully used, trees can improve outputs and lower inputs.

'Certain species of tree, e.g. willow, have a high water consumption. So plantings can dry out boggy ground and thus reduce sward damage from poaching, as well as reducing spread of bacteria causing lameness.

'Trees can provide shelter in the winter. In fact, their use as windbreaks can bring significant benefits by reducing hypothermia in lambs; Australian work found that wind shelter reduced mortality in twin lambs by 14-37%. Hypothermia is a major cause of death in lambs, especially on hill farms (see pie chart). By reducing exposure, there is also potential to have fewer cases of mastitis as lambs are less hungry, plus there is less direct damage to the udder by cold winds.

© Dee Smith/Woodland Trust

'Trees can also provide shade in the summer. That comes with the caveat that it may increase the level of fly challenge. However, this risk is manageable - farmers need to be vigilant and ready to pre-empt any fly strike with pour-on treatments and by putting up fly traps in susceptible pastures. Again, this should be integrated into flock health plans.

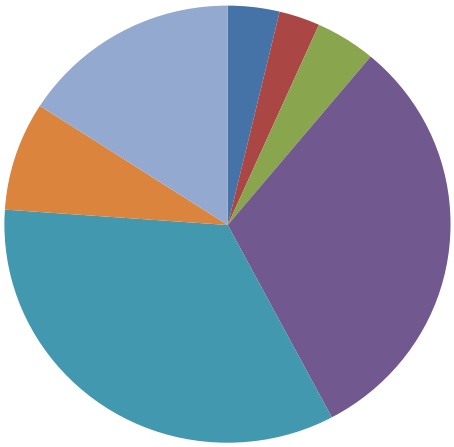
'Each farm has a variety of microclimates, and only with careful planning will the benefits of tree planting be realised. For example, leaving gaps in shelterbelts only funnels wind and can be counterproductive. The tree species chosen need careful consideration depending on site conditions. To provide cover for lambs they should be dense at ground level, or alternatively hedgerows may be a better option in places.

Farm planning: the devil is in the detail

'There is no doubt that agri-environment schemes influence sheep health and welfare, as well as farm profitability. Some conflicts can arise, but these can be managed. The planting of trees and hedgerows in a way which is of benefit to flocks will require a farm-specific plan.

'With careful planning, agri-environment schemes can improve farm resilience. But every farm is different. So when undertaking new environmental projects, farmers need to consider the impacts on sheep health and be proactive in discussing plans with their vet.

'Integration of the flock health plan with agri-environment proposals will maximise animal health and productivity, and help avoid any negative unintended consequences.'



Causes of lamb mortality on hill farms

Discussion groups: opportunities to learn more, see more, farm better

Armour veterinary group

Being a member of a vet-led discussion group is one way farmers can see and learn more about their livestock and farming systems and see where/how to improve what they do, says vet Ed Hewitt of Armour Veterinary Group.

Ed Hewitt
Armour Veterinary Group

A visit to the local abattoir was an eye-opener

Armour's beef discussion group has been running for three years. Its membership is drawn from 10 suckler herd units run on different systems - some selling calves as stores, while others finish them. Meetings are held in the middle of the day and are mostly based at the practice in Mauchline.

Meetings are generally held in the middle of the day and include lunch

'We've deliberately kept it a small group so that it can be more interactive,' explains Ed.

'Dairy farmers are very used talking to other dairy farmers and comparing farms and figures. Our dairy discussion group needs a strong chairperson to prevent meetings over-running! But at our first beef group meeting, members were reluctant to speak! That's all changed now. Members have built up trust in each other, and are more relaxed and willing to share their experiences… including their mistakes!

Improving efficiency

'As a vet, I've often assumed that farmers already know about diseases, and all the implications. But I've since discovered that they don't! So over various meetings we've been discussing key diseases and their impact on e.g. fertility, and ultimately, efficiency.

'For instance, if a bull which is naïve to IBR, arrives onto a farm where the disease is endemic, then it may become infected, resulting in a high temperature for a short period of time. This may then lead to a period of infertility. If the bull isn't tested and is the sole bull run with a group of cows/heifers, then that's going to have a big impact on profitability. Yet this can easily be averted by knowing the herd's IBR status, vaccinating if necessary, and always fertility testing the bull prior to breeding.

'BVD is another risk to fertility. Purchased in-calf heifers can test free of the disease but still be carrying a PI calf. This won't show up in blood testing. In one meeting we discussed the tissue-tagging of newborn calves from these high risk animals to prevent PI animals entering the herd.'

Farm visits

Most meetings are held at the practice, but some practical topics involve farm visits.

'Cattle handling systems were the focus of another meeting: for this we visited a farm and looked at the facilities there. Then we retired inside to a room where I presented some photographs and videos of other handling systems. The group discussed with me what was good and bad about them. I also went through the basic principles of handling animals - for example, where to stand and be safe, and how animals react to different noises.

'It was generally agreed that having good handling facilities makes jobs easier to do. It's then more likely that vaccination protocols are carried out properly, as well as other routine management procedures.

'In suckler systems, tagging newborn calves out in the field can be a risky, difficult job. We looked at the equipment available to catch calves safely, and one member was able to share his own experiences of using some of this equipment.

Abattoir visit

'Last year, we took members from both our beef and dairy discussion groups to visit our local abattoir at Saltcoats. They learnt about the pressures on that business from a meat trading perspective, and saw how cattle and carcases were processed. It was an eye-opener for all of us, on many counts.

'We viewed the handling area prior to kill. Here the importance of cleanliness was soon evident as we watched the way a carcase is split and its skin removed. It was interesting to see how the different parts of the carcase are treated - for instance how carefully tongues are removed due to their high value.

'At Armour we have always impressed on our clients the importance of using sharp sterile needles for injections, and tried to encourage that intramuscular injections are made in the neck rather than the rump. In the abattoir, we were shown the impact of injection site damage, and how these lesions devalue the carcase.'

Veterinary Investigation Centre visit

During a visit to our local VI Centre at Auchincruive, farmers were able to appreciate how much time and detail go into carrying out a post-mortem. In the laboratory, the various tests made on blood and tissue samples were explained. Farmers came away with a better appreciation of where their money goes.

The lab at the VI Centre

Upcoming meetings

Now the beef group has been running a few years, members have become more vocal! They are starting to come up with their own suggestions on topics they would like to know more about.

Ed explains: 'This October, some target figures on calf growth rates over winter have been requested. We'll also be sharing some Top Tips.

'In our December meeting, we will be looking at why some treated animals don't get better, and how to avoid wasting time and money on a "lost cause." This is a chance to discuss the value of diagnostic tests to ensure the correct treatment is prescribed, plus the importance of colostrum for calves and good hygiene.

'In our mid-January meeting we are going to look back at fertility data from 2018, from members' own farms. In advance of the calving season, we'll also be considering problem issues that may arise, and how to prevent them.

'We'll also discuss one of our newer services: using pelvimetry to aid decisions on which heifers to breed from. One of our farmers has been diligently breeding from calves born in the first three weeks of the calving block, and is now adding in consideration of growth rates and pelvic size.

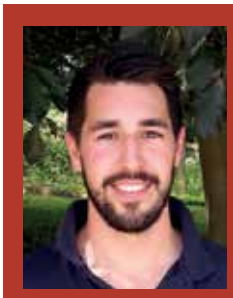
'Dairy farmers see their vets regularly on routine fertility visits. But for beef farmers, these discussion group meetings provide the opportunity to spend time together that we wouldn't otherwise get.

'One of the key differences from attending an evening meeting of presentations, is that discussion groups have a smaller number of attendees, which allows more interaction, both between members and with the vet. There is also more time to get into the detail on subjects such as diseases and how they impact on farm efficiency.'

Seeing the detail that goes into a post-mortem examination

Ensuring new heifers are fit for the herd and fit for breeding

Farm manager Iain Smith has focused on changing the genetics of the farm's suckler herd by buying-in heifers of different breeding, and using AI to speed the change.



Dan King

Jonathan Statham
Bishopton Veterinary Group

Heifers with Angus bull

Vets Dan King and Jonathan Statham, from Bishopton Veterinary Group in Ripon, have been providing advice and services to ensure the new heifers are fit and fertile, as well as suitable for the herd.

Iain Smith came to Moor Farm, near Burton Leonard in Yorkshire, three years ago. It is a mixed farm with both arable cropping and a suckler herd.

'I've come to a well-run farm, and the herd has an excellent herdsman,' says Iain. 'But there were a lot of older cows, and an empty rate of 10%. I wanted to maintain herd numbers, but improve fertility and have better maternal traits in the heifer replacements.'

Herd genetics

The herd at Moor Farm is a long-established commercial 180-cow suckler herd, originally built up from dairy-crosses.

The farm keeps six bulls: two Angus bulls for the heifers, two Limousin bulls for second calvers and older cows, and two Charolais bulls for use as terminal sires.

For many years, heifer replacements - 15-20 each year - had all been home-bred. Over time, selecting the best heifers as replacements had led to the majority of the herd being three-quarters or seven-eighths home-bred Limousin.

Iain explains: 'I wanted to get away from having so much Limousin home-breeding in the replacements, and introduce fresh genetics from a different breed - one that was docile, easier to calve and milkier. But introducing these more maternal traits was going to take a long time to achieve.'

He decided that to speed up change, he would buy in some heifers to change the genetics straight-away. He discussed the various options with his vets Dan and Jonathan.

Iain adds: 'Originally I was going to run a nucleus herd of 30 South Devon cows, but without going down the sexed semen route, this would only produce 15 new replacements each year, so it was going to take around five years to see measurable changes in the herd.

'I'd also considered the Salers breed - which has the maternal traits I was looking for.'

Health fitness

Sourcing animals from a high health herd was important. The Moor Farm herd is free of, bTB, leptospirosis and BVD, and is vaccinated for BVD and Rotovac Corona, and the calves for pneumonia.

Iain found a herd of Salers and South Devon cross-breds, which was accredited free of BVD, IBR, leptospirosis. Each year for the past three, Iain has bought in around 15 heifers from this farm.

Breeding fitness

To ensure the good health, fertility and suitability of these heifers, Iain and Dan make a pre-purchase inspection on the source farm, early in the year

when heifers are around 12 months of age. They are put through the crush and Dan carries out a number of examinations.

Dan comments: 'Iain has a very strict policy on temperament. So for a start, any heifer that goes wild in the crush won't get selected!

'I'll scan each heifer and check they are not in-calf, and not a freemartin. I also scan their entire reproductive tract to assess its size, and see if they are cycling. I use an American scoring system to give some objective ranking on this attribute.'

Dan also measures the pelvic size - height and width - of each heifer, and then calculates the area of cross-section. He then uses reference tables, taking into account breed and age, and evaluates whether the pelvic diameter is bigger or smaller than target size.

Dan explains: 'The main benefit of pelvimetry is that it allows you to exclude the 'freaks'. When measuring pelvic size, it's not about picking the biggest. The trait is very heritable and so if you keep selecting for bigger pelvises then animals just get bigger and have bigger hips.

'Iain doesn't need too large a mature animal, because of the extra costs of feeding it. And big-hipped calves are to be avoided as these are the ones that present problems at calving.'

Pelvimeter callipers

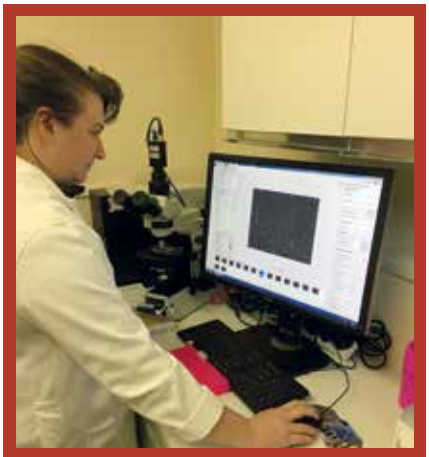
Heifers are also weighed. The pre-bulling target weight is 410kg at 15 months of age, to calve at 24 months.

Iain also discusses the genetics of individual heifers with the owner. Dan explains: 'From the results that day we can select out the good heifers according to the data, and then Iain looks through them and picks the final fifteen by eye.'

Iain also selects 15 home-bred heifers as replacements. These undergo the same breeding examinations. Iain says: 'I've been surprised at how many failed the test due to having too small a pelvis.'

AI

The home-bred heifers are run with Angus bulls. But the newly purchased heifers are AI-ed to an Angus.



Katie Burton, head technician at RAFT, assessing semen quality using a computer program

Iain explains: 'The AI is timed so that we calve a big chunk of the heifers before the main herd starts, which gives us more time to look after them.'

Before AI-ing, heifers are brought inside and fed well to flush them. Dan ensures all the key elements for success are covered - vaccinations, BCS, minerals and nutrition. Heifers are synchronised and then AI-ed all together. After 10 days, they are turned out with an Angus bull.

Dan explains: 'Ensuring stress is kept to a minimum in the period 6 weeks before and after AI, is key. There shouldn't be any changes in environment, nutrition or social group. Animals should be familiar with the handling system and managed in a calm manner.'

'When going to the effort of synchronisation and AI, semen quality must be top notch. So before insemination is made, some straws will be sent to the laboratory at Bishopton's sister company, RAFT. Here, computer-assisted semen analysis is carried out to give objective assessments of parameters associated with field fertility, e.g. sperm motility. This is more accurate and comprehensive than manual methods.'

AI is carried out by one of Bishopton's technicians or vets. Each heifer is AI-ed twice over a 24 hour period - once in the morning and again the following day.

Dan explains: 'We oversee every step in the process to help ensure success. Bull selection is also important - we work with the farm using EBVs to select a suitable easy calving bull that also has impressive growth rates.'

A conception rate of 66% was achieved in the first year, and 73% the second year - with one set of twins and one set of triplets producing 14 calves from the 11 heifers that held to AI. Last year, heifers were run with the bull due to other farm factors, but Iain will AI again next year.

After just three years, one third of the herd now has South Devon x Salers genetics.

South Devon x Salers cow with AI calf

Getting control of sheep scab: diagnostics, dipping, and daring to confront the neighbours

The compulsory annual dipping of sheep to control the mites that cause scab was ceased in 1992. Since then, the prevalence of this parasitic disease has been on the rise.

Vicki Fisher
Farm First
Veterinary Services

Vet Vicki Fisher of Farm First Veterinary Services, near Abergavenny has been advising her sheep farming clients on the strategies needed to control the parasite and prevent sheep from becoming reinfected.

'Scab is very infectious, and spreads easily from sheep to sheep,' explains Vicki. 'Mites can also live in the environment for up to 17 days, e.g. on tags of wool, or on fence posts.

'To be effective in getting scab under control, it's important that firstly the diagnosis is correct, secondly that appropriate treatment is given, and then that strategies are in place to prevent reinfection,' says Vicki.

Treating an outbreak

At Lower Hunt House Farm, near Longtown in Herefordshire close to the Welsh border, Heather Probert and her family manage a commercial flock of 450 breeding ewes, mostly Welsh crosses run with Texel tups.

Historically, the Proberts have been very successful at keeping scab under control. But last January, when the ewes had been brought inside ready for lambing in March, Heather noticed they were getting itchy.

Heather explains: 'We'd not had a problem with scab before. But we'd recently found some sheep amongst the flock which weren't ours. We think some well-meaning person had found them on the road and put them into our field.'

So the whole flock was treated with injectable doromectin at the time of housing. But despite this treatment the symptoms - scratching and wool loss - did not improve.

Sheep farmer - Heather Probert

Heather arranged with the vets at Farm First to take seven sheep to the practice for skin scrapes to be taken for testing. Results confirmed the presence of live scab mites. This strongly suggested they were resistant to the injectable, so a different treatment was now needed. To ensure a rapid cure before lambing, plunge dipping in OP dip was advised.

With no dip facilities at the farm, Heather hired in local contractors who supplied a mobile dipper, and also had the necessary licences to purchase and dispose of the dip chemical.

Heather explains: 'The ewes were itching so much we had to get this done straightaway, even though it was February and they were heavily in-lamb. The weather was shocking too. It took four of us two days to dip 600 sheep, taking care to dip the pregnant ewes one at a time. We think this did cause some stress, but it needed to be done. And they did stop itching straight away.

'We had talked to all our neighbours about the scab. One of them, once we'd finished dipping all our sheep, then used the same mobile unit on his farm to dip his. However, some farms just moved their sheep away from the boundary, but didn't treat them.'

Reinfection

Despite the neighbour's flock being dipped, the infection re-established. This was most likely due to its close proximity to a grazing common. However, this flock then reinfected some of Heather's ewes and lambs which were in an adjacent field.

Heather explains: 'Fortunately this group of sheep had not mixed with the rest of our flock, and so we just treated them with a different injectable, and moved them away to another field.'

Heather has always been careful to avoid grazing sheep against some of the farm's boundaries and instead uses these fields for the farm's suckler cattle. But so that the scab risk does not limit the choice of grazing for the flock, she is planning to double-fence certain boundaries.

Vicki adds: 'Padlocking roadside gates is another safeguard to prevent escapee sheep being mixed into different flocks, and potentially spreading parasites like scab and also lice.'

Dips vs. injectables

'For successful scab control, it is essential to kill every single mite on every single sheep,' says Vicki.

'If done well, plunge dipping gives a rapid cure and kills everything. Itchiness is an allergic response to mites' bites, and also their faeces. So dipping is also beneficial in washing out debris and faeces.

'However, not all farms have the facilities or licences to dip, so it can be more practical to hire in a contractor with a mobile dipper. Anyone coming into contact with the dip chemical will also need to observe the health and safety precautions.

'Injections are convenient to give but the correct dose(s) for the sheep liveweights must be given, else mites will survive and reproduce.'

Vicki adds: 'It's important to read the datasheets, or consult your vet, when treating scab with injectables. The dose rates can vary and, depending on the product, two jabs may be required, as well as moving sheep away from contaminated pastures.

'There's currently no reported resistance to OP dips but there are increasing reports of moxidectin and doramectin resistant scab, as was the case at Lower Hunt House Farm. These injectable treatments also have an anthelmintic effect - and this is a risk to the development of resistant worms.'

Action for suspect scab cases

If sheep are getting itchy, Vicki advises getting a diagnostic test to confirm whether it is scab, lice, or both. She explains: 'Skin scrape samples need to be taken by a vet. We can either do this on the farm, or sheep can be brought to the practice - but arrange it with the vet first! It is illegal to move scab-infected animals, except to/from a veterinary practice.

'There is also a new test which can identify scab before itching starts, and this may be useful in some situations.

'If scab is diagnosed, then tell your neighbours! That way, treatments can be co-ordinated or stock moved, to prevent reinfection.

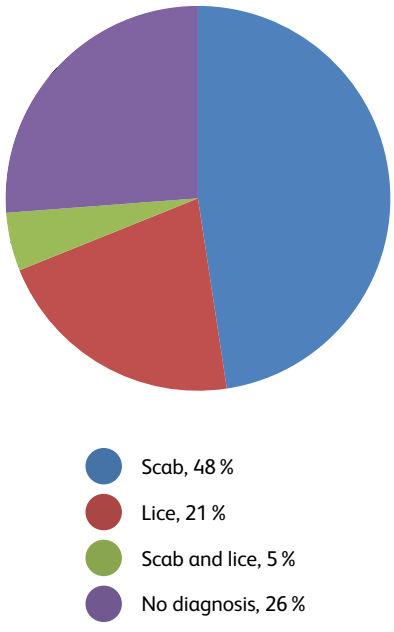
'Whether dipping or injecting, each treatment method has its merits and drawbacks, and a control strategy in discussion with the farm vet can help ensure success.'

Scab or lice? Or both?

Vicki explains: 'Often farmers assume itchy - or pruritic - sheep have scab. But lice also cause itching and the signs look almost the same, but the treatments are completely different and ineffective against the other parasite, except OP dips.'

Last winter (Dec 2017 - March 2018) under a free testing scheme by APHA, samples were tested from 164 sheep for lice or scab mites. Lice were present in 26% of cases. (See pie chart).

'Fourteen samples were from Farm First clients who all thought they had a scab problem. But the results showed four of them actually just had lice, and two had both scab and lice.



Skin Scrape Test Results

A **'cuddle box'** and a **colostrum protocol** improve young calf health

MILLCROFT farm

A change in the management of freshly calved cows has improved the health of young calves and boosted growth rates on a Cumbrian dairy farm. Key elements of the new system are a portable milker in the calving shed which ensures a faster delivery of colostrum, and a 'cuddle box' for the newborn calf.

Matt Linnet
Millcroft Veterinary Group

Vet Matt Linnet from Millcroft Veterinary Group provides advice and veterinary support to brothers Simon and Mark Allison and their calf rearer Ewelina Teksa, at Barnyard Farm near Cockermouth.

This family business expanded three years ago and milking cow numbers have increased from 300 to 500 with yields averaging 10,000 litres/cow, on an all year round calving system. The Allisons admit the system had become over-pressured with the increased number of calves.

Mark and Simon Allison

Calf Tracker

In September 2017, the farm had enrolled onto XLVets' Calf Tracker and aspects of health and performance were being monitored by Millcroft's vets.

Matt explains: 'On the face of it, the average daily liveweight gain per calf from birth up to weaning was 810g. So the growth rate target was being met. However, this is only a global measure. When we drilled down into the data, we could see calves were actually drastically underperforming in the first three weeks. Scour rate was around 40% and calves were only growing an average of 330g per day. They then made compensatory growth - an average of 960g per day - up until weaning.'

The Calf Tracker scheme includes taking blood samples from week old calves to assess the 'passive transfer' of antibodies to the calf through the dam's colostrum, by measuring blood protein levels.

Matt explains: 'When we looked at the results of the passive transfer tests, only half the calves were receiving enough antibodies to give them good immunity against disease.

'A better routine was needed. Specifically, calves needed to be receiving colostrum sooner, and procedures put in place to ensure its good quality and appropriate quantity. The weak link was timeliness of administration.'

Portable milker

Matt explains: 'A dam's colostrum quality will fall by 3-5% every hour after calving. And a calf's ability to absorb that colostrum will also be dropping at a similar rate of 3-5% every hour. So it's essential that cows are milked out, and calves are fed, as soon as possible after birth,' says Matt.

Simon explains: 'We used to take freshly calved cows to the parlour to collect their colostrum, but this meant there was often some delay.

'Mark and I had the idea of recycling our old AI handling pens. By putting them in the calving shed, we could milk the cows there. This would also save freshly calved cows from being pushed about by other cows in the parlour.

Assessing colostrum quality

'We purchased a portable milker and it's been a 'game-changer'. We check colostrum quality with a refractometer, and then with the calf nearby, we can feed it straightaway. We usually tube the calf but if we have time we will put them onto the teat.'

The farm's protocol is to feed calves four litres of fresh colostrum in the first 20 minutes of life. If colostrum is low in quality, then either more of it is fed, or good quality frozen colostrum is used.

'Cuddle Box'

The new system has gone beyond changes to colostrum collection and delivery.

Newborn calves are immediately placed into a 'Cuddle Box'. This has been made from an old IBC with the top cut off, and one side partially cut away. It is bedded with clean straw and provides a dry and draught-free environment for the calf.

Matt explains: 'Modified IBCs make great cuddle boxes because they are easy to clean in-between calves. It's much warmer than metal for a wet calf, and light to move around. Draughts will sap energy from wet newborns and reduce their suck, so its solid high sides prevent that. Placing a calf in a cuddle box also stops it suckling off dirty teats, or being exposed to bacteria - and risk of scour - in the calving pen.'

When it is time to collect the colostrum, the cuddle box is put in front of the cow so she can reach the calf and start licking it. Also inside the box are: a bucket of electrolyte solution so the cow can rehydrate herself; and a fresh supply of the lactating cow ration - this is sprinkled over the calf so as she licks the calf she also inadvertently takes in dry matter.

Matt explains: 'Using a cuddle box alongside a portable milking machine is a Dutch idea - it takes advantage of the 'power of nature' and the cow's natural reflexes. The cow-calf contact enhances the dam's endogenous oxytocin release and hence improves milk let down. It increases the quantity of colostrum produced, and is believed to improve its quality too. Her licking of the calf stimulates its oesophageal groove reflex, ensuring colostrum goes to the correct stomach.

Mark adds: 'We also installed new calf pens and began to reuse some old hutches that we already had. These have solid sides to prevent draughts, but still enable calves to see their neighbours. Calf jackets are used in cold weather and when calves are sick. A 'pamper box' - another IBC, this time with side panel removed, and heat lamp suspended from the roof, is also used for sick or premature calves.

Calf rearer Ewelina Teksa and the new calf pens

'Matt has encouraged us to look more carefully at what equipment and infrastructure we already had, and has helped us target our efforts and ongoing investment.'

Benefits seen

Matt says: 'With the new protocol, Calf Tracker monitoring in March showed 100% of calves were receiving adequate antibodies through the colostrum. The incidence of scours had dramatically fallen to nearly zero. With this good start in life, daily liveweight gains were averaging 910g - 15% higher than previously.'

But in early summer there was a flurry of calving and focus was lost. June-born calves only had 30% successful passive transfer. Scours and pneumonia became rife. Daily liveweight gains from birth to weaning dropped to 760g/day.

Matt comments: 'This was an important lesson. However, when everyone refocussed their efforts, improvements were soon seen again. July-born calves hit 100% success in meeting targets for blood proteins. This eliminated the scour issues once again, and dramatically reduced pneumonia incidence. The overall result was to bring liveweight gains back up to 900g/day with many calves achieving well over 1kg/day of growth from birth to weaning!'

Taking care with the **use, and non-use,** of Critically **Important Antibiotics**

Ken Wilson
DS McGregor and Partners

Recent changes in one farm assurance scheme have put the spotlight on reducing the use of specific antibiotics known as HP-CIAs, which are used in human medicine. So XLVets practices are stepping up their strategies to show farmers how they can have profitable healthy livestock units, without them.

Vet Ken Wilson of DS McGregor and Partners in Caithness explains: 'Bacterial resistance can arise simply by antibiotics being used and bacteria developing a natural resistance to them - so the less any antibiotic is used, the better, too. The chance of resistance developing is increased by misuse, such as under-dosing or not finishing the course, and/or inappropriate product selection.'

Critically Important Antibiotics

Ken adds: 'Certain classes of antibiotic are used in the treatment of both animals and humans; examples used in the livestock sector are fluoroquinolones and cephalosporins. These antibiotics are amongst those classified as being Highest Priority-Critically Important Antibiotics (HP-CIA) by UK organisation RUMA (Responsible use of Medicines in Agriculture) because of the degree of risk to human health should antimicrobial resistance develop.'

The Red Tractor Assurance scheme has recently introduced stricter regulations on antibiotic use. Its new rules which came into force on 1st June 2018 state that Highest Priority - Critically Important Antibiotics (HP-CIAs) must only be used as a last resort under veterinary direction. And that this use must be supported by a vet report outlining results from diagnostic testing (which would identify the cause) and/or sensitivity testing to justify the use of an HP-CIA, over any other antibiotic.

As independent businesses, every XLVets vet practice is free to adopt their own policies on the issue. Here, four XLVets vets share the different approaches taken by their practices to help farmers reduce antibiotic usage on their farms.

Monitoring antibiotic usage

At Lambert Leonard & May in the north-west Midlands, the use of antibiotic products now on the HP-CIA list was already restricted. Vet Dan Stevenson says: 'About five years ago, we started drawing farmers' attention to these antibiotics by adding a black and yellow warning label to product boxes, and writing articles in our newsletter explaining the risks of resistant bacteria developing, and consequent impact on treatments for humans.

'We also developed our own reporting system that broke down client spend into the different

medicines. We encouraged farmers to benchmark their usage - from year to year, and against other farms. The report created hard data which could be used as a basis for discussion and change.

'When faced with a sick animal, farmers should always think carefully about the cause and consider the most appropriate treatment. This might not be an antibiotic, but a supportive treatment like for example, electrolyte fluids and NSAIDs for scouring calves.

'We have always been looking at where we can help our clients to reduce spend on antibiotics. This can be through adopting preventative strategies like vaccination, and/or making alterations to livestock housing or hygiene practices.'

Dan Stevenson
Lambert Leonard & May

Using an HP-CIA

DS McGregor and Partners is another practice that has already clamped down on antibiotic use. Ken Wilson explains: 'Five years ago we drew a line in the sand and decided that from then on we would only stock one fluoroquinoline product, and be really strict on its prescription.

'We would discuss alternatives with our clients. Sometimes what they perceived as being the 'strongest' antibiotic was not actually the best one for the job anyway. Often management - hygiene, shed ventilation - was the issue that had precipitated the disease and the need for antibiotic treatment.

'Diagnostic testing is important to identify the cause of the disease, and determine whether antibiotic treatment is needed. If it is, but initial treatment fails, then culturing the bacteria and carrying out sensitivity testing will identify alternative choices, and whether the use of say, a fluoroquinolone, is an appropriate treatment or not.'

Bella Maine
Larkmead VeterinaryGroup

In Oxfordshire, Larkmead Veterinary Group has appointed vet Bella Maine as an 'antibiotic steward', giving her the responsibility of ensuring vets are fully informed of treatment options and no longer prescribe an HP-CIA as first line treatment. Bella has also ensured every farm's health plan follows the same policy.

A traffic light system has been instigated at the practice: HP-CIA products are coded 'red' and kept on the top shelf in the pharmacy. Bella explains: 'Now vets only prescribe a HP-CIA if there's been no response to other treatments. And we'll never leave a full bottle on a farm - just dosed syringes to treat the specific animal/animals.'

Tony Kemmish
St Boniface Veterinary Clinic

Farming without HP-CIAs

At St Boniface Veterinary Clinic in Devon, director Tony Kemmish has gone one step further and will not be restocking any HP-CIA medicines once the last few bottles have been used up.

He explains: 'Over the past couple of years we've been showing our clients how they can stop using fluoroquinolones and cephalosporins without detriment to their livestock's health. The alternatives are also cheaper! Through benchmarking antibiotic usage across farms, our dairy clients have seen for themselves how it's possible to farm successfully without them.

'We have recently adopted a more hard-line approach, and now the only situation in which we will prescribe an HP-CIA product is when sensitivity tests have shown that nothing else is effective.'

Mastering Medicines - being competent on-farm

FarmSkills
GROWING FARM BUSINESS SUCCESS

As well as stricter regulations on the use of HP-CIAs, the new Red Tractor Assurance standards now recommend that farms can demonstrate that those who administer medicines and veterinary treatments have a level of competence to do so. It is recommended that at least one person on the farm whose responsibility includes administering medicines, has undertaken some training.

In response to this, XLVets' training division FarmSkills has devised a practical training course entitled Mastering Medicines. This is delivered by vets at XLVets practices, and is available not just to their own clients, but to anyone interested. It covers the use of antibiotics, wormers and NSAIDs. Attendees gain an understanding of how they work, the different classifications of product, when to use them and how to administer them.

The Mastering Medicines course has been proving very popular. For details of practices running these courses, visit **www.farmskills.co.uk.**

A look at lameness: the past, present and future

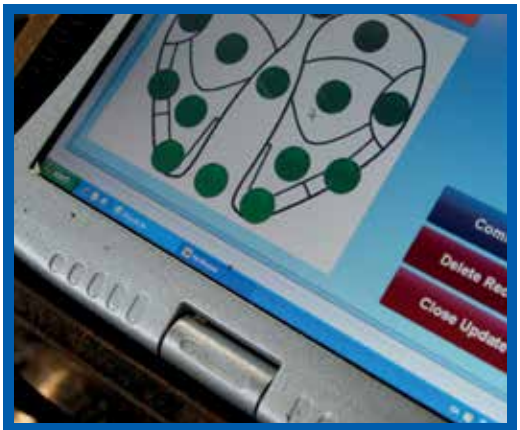
In March, the Cattle Lameness Academy, part of Synergy Farm Health, held its biennial seminar: a day of presentations on the latest issues and research into lameness and mobility. Here, Synergy vet Reuben Newsome presents some of the information and practical issues raised that day.

Reuben Newsome
Synergy Farm Health

Review the past

'A great place to start with lameness is to review the current situation,' explains Reuben. 'This relies on having collected the data.

'There are a variety of software packages used by vets and foot-trimmers which make it easy to record data, and review the past so trends in lameness progression can be identified.



Software to record foot treatments

'Not every farm will have access to these packages, however just creating a simple Excel spreadsheet on the computer will provide a good starting point. Essential data to record are: Cow ID, date seen lame, degree of lameness, suspected type of lameness (having inspected the foot), date treated and treatment given. Recording the result of the treatment is a bonus- especially if it's a cure!

'By actually recording the cases - rather than remembering individual cases of the moment - we can get a better idea of what is truly happening and whether interventions have helped.

'Good records also enable reviews of foot health over long periods of time. For instance, it will flag up the cows that go lame several times each year. This can aid breeding and culling decisions. Or, if it's the same claw each time for example, then the decision can be made to have advanced therapy such as digit amputation.

Antibiotic treatments

'At present, antimicrobial resistance, antibiotic usage and targets for its reduction, are under the spotlight in the livestock industry.

'Some causes of lameness - such as digital dermatitis and foul in the foot - require timely and targeted treatment with antibiotics.

'Digital dermatitis is an infection of the skin. An 'active' lesion is red, painful and infectious to other cattle. When treated, or when the cow fights back sufficiently, the infection becomes dormant, becoming grey or visibly disappearing, but it never goes away completely.

'Treating active lesions promptly with a broad-spectrum topical antibiotic gives the best chance of resolving the lesion. For more complex deeper infections, like foul of the foot, injectable systemic antibiotics will be required.

'Many "first line" antibiotics are licensed, avoiding the need to reach for those categorised as Critically Important. Farmers should speak to their vet for the specifics.

'Some cases, e.g. deep ulceration, infection and septic joints will need to be seen by a vet. Prompt detection and treatment of these always gives the greatest chances of success, so don't delay in calling in help.

'To ensure the correct action is taken for each individual case, farmers can draw up a protocol with their vet to aid identification of the cause, and enable the right treatment - product, dosage, and length of course to be given.

Footbathing

'The point of footbathing is to stop new digital dermatitis infections and infections re-emerging from being dormant. Disinfectants - such as formalin and copper sulphate - will kill bacteria on the skin surface before they can set up an infection.

'In the past, antibiotics have been used in footbaths to try and treat large numbers of cattle affected by a herd "flare up" of active lesions. However, the use of antibiotics in

footbath regimes is contentious and even unjustifiable,' says Reuben. 'And the reasons are many.

'The antibiotics used in footbaths, such as macrolides, are important in human medicine. Therefore we are under pressure to reduce their usage. Further, a very large quantity of antibiotic is used in a footbath, which is then disposed of into the slurry pit. This antibiotic will remain active and come into contact with a vast number of bacteria, so the potential for resistance developing is huge.

'Indiscriminately putting the whole herd through the footbath will also 'treat' many feet unnecessarily. And, the use of antibiotic powders in footbaths is an off-licence use, so what's the withdrawal period? A statutory minimum of seven days for milk, by law.

'There are a range of alternative solutions to antibiotic footbaths, including "blitz therapy" to individually treat all animals with active lesions; this is far more targeted and responsible. Farmers should speak to their vet for the options.'

Team approach

At the seminar in March, the benefits of having a joined-up team approach were discussed. Some farms have experienced foot-trimmers amongst their staff. Others employ the services of independent foot-trimmers.

Reuben explains: 'We employ Vet Techs at Synergy to perform foot-trimming and mobility scoring for our clients. They deliver a practical service which takes the pressure off farm staff; they also become part of the team, collecting data electronically to be reviewed with the vet and farmer.

Mobility scoring

'Everyone involved with foot health needs to take a part in reviewing the data and setting goals. It needs to be at least a 3-way conversation between the farmer (and key farm staff), vet and the foot-trimmer - regardless of whether they are independent, or part of the same vet practice.

'We vets are always preaching about early detection and immediate treatment! So regardless of who does the foot-trimming, it's essential that everyone on the farm can identify when a cow is going lame, and that as a minimum someone can pick the foot up and give initial treatment.

Recording lesions and treatments electronically

Synergy Vet Tech at work

Breeding out lameness

'Historically hock angle and other conformation markers have been used as the basis for a genetic index for lameness but their relevance to lameness has been poor. However, recent work shows that when detailed and accurate records are kept, lameness, or the lack of, is actually more heritable than first thought.

'In Scandinavia, it is mandatory for all foot-trimmers to feed their foot records into a central database; this has dramatically increased heritability estimates. In separate recent work, the University of Liverpool has found heritability estimates of 0.29 and 0.22 for sole ulcers and digital dermatitis, respectively; these figures make breeding to reduce lameness very plausible.'

AHDB has recently launched a genetic index for lameness. 'It's early days yet, but the more accurately that farms record and report lameness cases, the bigger and more accurate the data set and the better the predictions,' adds Reuben.

Me and My Practice: Laura Bland

Pursuing an interest in sheep with new AI service

Laura Bland
Cliffe Veterinary Group

Finishing off a successful Caesarean

The development of a sheep AI service is further expanding the variety of work for young vet Laura Bland of Cliffe Veterinary Group, in East Sussex.

Laura came to the practice two years ago, and splits her time 50:50 between companion animal and farm animal work.

Laura explains: 'On my farm days, I'll have a set of booked-in calls to go out to, before returning to the practice. I'm mostly working with beef and sheep farmers, and smallholders. However, I also accompany my colleagues to dairy routines.

'Being mainly based at the Lewes practice, I'm always the emergency vet! So I've been gaining a lot of experience in treating downer cows, random injuries, and assisting difficult calvings.'

Laura also gives a lot of advice by phone: 'Smallholders in particular, can often not know where to start when there's a problem. So they ring us. Often, just by having a chat over the phone I can establish whether a visit is needed or whether verbal advice will be enough to resolve the issue.

'This year, I've been advising smallholders and sheep farmers on worm egg counts, and how to get a worming programme started. If it's a big farm then I'll arrange to visit, but if it's a small flock then I can often put a plan in place by phone.

'My role is developing now so that I'm also getting involved in preventative health planning, and drawing up herd and flock health plans. This started by accompanying senior vets on health planning visits and seeing how the planning consultation is run. We have our own Cliffe Vets health plan templates for dairy, beef suckler, beef rearer/finishers, calf rearers and sheep, which makes it easier not to forget to discuss something!'

Laura assisting with laparoscopic AI

Laparoscopic AI

Laura has also been developing her interest in working with sheep, by assisting Cliffe's farm department director Nick Pile with a new laparoscopic AI service.

Laura explains: 'I supervise the farmer loading each ewe into the cradle. Then I prep the ewes - sedating them, shaving their abdomens, and giving local anaesthetic. I also look after the semen handling - carefully thawing the semen pellets and straws, before loading the insemination catheters for Nick.

'We started offering the AI service last year as no-one was providing it, and AI-ed five flocks. This year, we expect demand to grow as people become aware of a local service.

'In mid-July, we AI-ed 50 Charollais ewes that had been sponged, so they would lamb down in early December. Conception rates - based on non-return rates - were 66% to frozen semen and 90% to fresh semen collected from a pair of rams on the day. We expect scanning rates will be comparable to natural service.

'We are also starting to offer a ram semen collection and freezing service, and in the next year or two, we hope to venture into embryo transfer work.'

About Cliffe

The farm animal staff of Cliffe Veterinary Group work out of the headquarters in Lewes. The practice also has small animal clinics at Ringmer and Woodingdean, and an equine clinic at Laughton.

There are currently 14 vets across the small animal and farm departments, five of whom are mixed vets. There are 4.5 full time equivalent farm vets, plus two TB testers. However, the practice is expanding, and two more vets will join this autumn.

Laura explains: 'We've recently taken on more clients, mainly sheep farmers, from a neighbouring practice that gave up farm work. Our Equine Clinic is based at Laughton, and so we are able to use operating facilities for these new clients if needed, for example for ewe Caesareans, prolapses, vasectomies, AI and ram fertility work.

'It's a friendly and close team at Cliffe. I love working here. Everyone is very supportive. They made settling into life as a vet very easy, always being on the end of the phone in an emergency!'

As well as gaining in knowledge and experience through the support and guidance of her colleagues, Laura has also attended further training courses, including a cattle pregnancy scanning course, and the XLVets Graduate Training Programme.

'I particularly enjoyed the XLVets course as it brings together a number of recent graduates to share their experiences,' says Laura. The course is run over three days, three months running, based at different XLVet practices across the country. It includes case discussions, informal lectures and training in practical skills, and is all based around scenarios that are encountered in first opinion practice, across all the main farm species.

'We all became good friends on the course, and are still in touch now. We discuss difficult or unusual cases, sharing our knowledge between XLVets practices.'

About Laura...

Laura grew up near Stockfield in Northumberland where, according to her family, she had wanted to be a vet since she was three years old! She spent her teenage years helping at a local two-vet practice who supported her early days learning the ropes as a vet, and also gaining livestock experience by working on a sheep farm.

But when it came to getting a university place, she didn't get in first time. 'Apparently I spoke too quickly in the interviews!' says Laura, 'And needed to think more first!' Not one to give up, Laura went travelling for a year. During this time she travelled to South Africa, working at a crocodile sanctuary, helping to catch and relocate crocodiles. She also worked with game vets where she TB tested buffalo and helped with rhino capture. Laura then reapplied to vet school, and was accepted into Liverpool University, keenly turning up to the interview with a leg in plaster and broken ribs following a horse fall. Laura's advice to anyone who really wants to be a vet is: 'Don't give up - it is 100% worth it!'

Laura and crocodile

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workshops in the **North**

6th November	**DIY AI (4 days)**	Capontree Veterinary Centre, Cumbria
7th November	**DIY AI (3 days)**	Lambert, Leonard & May, Shropshire
13th November	**DIY AI (4 days)**	Westmorland Veterinary Group, Cumbria
14th November	**DIY AI (3 days)**	Bishopton Veterinary Group, North Yorkshire
14th November	**Foot Trimming and Mobility Scoring**	Capontree Veterinary Centre, Cumbria
20th November	**Sheep Lameness**	Bishopton Veterinary Group, North Yorkshire
7th December	**Mastering Medicines**	Bishopton Veterinary Group, North Yorkshire
10th December	**DIY AI (3 days)**	Bishopton Veterinary Group, North Yorkshire
8th January	**Sheep Lameness**	Bishopton Veterinary Group, North Yorkshire
6th February	**Lameness and Foot Trimming**	Armour Veterinary Group, Ayrshire

workshops in the **South**

6th November	**Mastering Medicines**	Synergy Farm Health, Dorset
7th November	**Pregnant Suckler Cow Nutrition**	Larkmead Veterinary Group, Oxfordshire
13th November	**Foot Trimming (2 days)**	ProStock Vets, Carmarthenshire
13th November	**Mastering Medicines**	Allen and Partners, Carmarthenshire
14th November	**Mastering Medicines**	Shepton Veterinary Group, Somerset
30th November	**Mastering Medicines**	Mount Vets, Devon
6th December	**Pregnant Ewe Nutrition (Talk)**	Larkmead Veterinary Group, Oxfordshire
10th December	**DIY AI (4 days)**	Shepton Veterinary Group, Somerset
11th December	**DIY AI (3 days)**	Synergy Farm Health, Dorset
13th December	**Mastering Medicines**	ProStock Vets, Carmarthenshire
14th December	**Pregnant Ewe Nutrition (Workshop)**	Larkmead Veterinary Group, Oxfordshire

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