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# Johne's disease

Risk assessments and protocols make

# Respiratory disease





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## WINTER EDITION

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# THE EDITOR

# Welcome to the 'Winter' issue of Livestock Matters

In this issue we look at Johne's control and gain an understanding of why regular risk assessments and strict management protocols are needed to prevent its spread.

We explore how bacterial populations on farm change over time. Vet Graeme, talks us through why it is worth revisiting the farm vaccination strategy to see what alternatives

Finally, a little further from home, we review the progress made by the XLVets partnership with Send A Cow in the last 12 months. Vets Bryony and Sarah explain how some of the challenges faced in African dairy farms are similar to the challenges faced in the UK.

We would like to take this opportunity to wish all our readers a prosperous New Year!

We hope you enjoy this issue of Livestock Matters.

Alyne

# **Gemma Ayre**

Editor



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# **SQP** of the Year Award!



Congratulations to Alice Geddes, Pharmacy Manager at Synergy Farm Health who has won Veterinary Practice SQP (Suitably Qualified Person) of the year at the National SQP Awards in November. Alice has been with Synergy Farm Health for four years and has recently obtained an MSc in Veterinary Pharmacy with Harper Adams University. As part of her MSc, Alice completed a research project on 'Measuring Wormer Gun Accuracy'

alongside Emily Gascoigne, and has since presented this.

Alice is a farmer's daughter and leads a busy and highly skilled Pharmacy Team at Synergy Farm Health in Evershot, Dorset.

The National SQP Awards 2017 were held in London and 12 awards were handed out to those who had demonstrated innovation and excellence in their fields.



# **BVDFree England FAQ**

# What is BVDFree England?

BVDFree is a voluntary industry-led scheme driving the elimination of BVD in England. The scheme is based on helping farmers to identify if their herd may be infected with BVD. Farms can eliminate BVD virus infection by identifying and removing animals persistently infected (Pls) with BVD virus. All herds should take action to minimise the risk of breaking down with BVD.

The BVDFree database is a searchable database which holds details of the BVD status of individual animals and of the herds signed up to BVDFree.

# How do I find out my test results?

Your laboratory will send you a copy of all your test results. When you join BVDFree you agree to report all BVD testing results from your herd to the national database. Your laboratory will upload your results to the BVDFree database automatically provided the samples were sent in on a BVDFree submission form.

Herd BVD status and individual animal BVD status are openly accessible through the BVDFree database search function on the home page. No specific details of farm name or keeper are shown.

# What is the difference between herd and individual animal status?

Individual animal status is assigned when an animal is tested for BVD virus under the scheme. This will be visible on the database once it has been uploaded by the designated laboratory. These will show as either 'BVD Virus Test Negative' or 'BVD Virus Test Positive'.

Herds can apply from 2018 to be assigned a herd status by BVDFree when the herd has completed two consecutive years of negative testing after they become members of the scheme. A herd Test Negative status means there has been no evidence of BVD virus circulating in your herd over the previous 2 years.



# Winter management for beef suckler herds



SAC Consulting, in Partnership with Scott Mitchell Associates, recently held an open meeting for beef farmers in Northumberland. Hosted by David and Annabel Stanners of Low Chesterhope Farm, near West Woodburn, the event on Wednesday 22nd November attracted over 50 farmers, some from as far away as North Yorkshire.

The event was organised into five talks, which were given simultaneously with groups of attendees moving round to listen to each during the course of the day. Despite there being a yellow weather warning for rain, this wasn't enough to dampen the spirits and everything went ahead inside the cattle sheds. The programme of talks was as follows:

 Cow body condition scoring and winter feed management - delivered by Colin Mason, Veterinary Centre Manager at SAC Consulting Veterinary Services' disease surveillance centre in Dumfries, with Robert Logan, Senior Consultant for SAC Consulting on the Beef & Sheep specialist team. Using a pen of the Stanner's cows as an example, the talk focused on thinking about body condition at this time of the year when it can be influenced by grouping cows of similar condition and feeding accordingly. The importance of analysing the silage and being sure to use the best quality rather than poor silage from the sides of the clamp for example, was also highlighted.

- Heifer management and fertility delivered by Lee-Anne Oliver, farm vet at Scott Mitchell Associates in Hexham, with David Stanners, owner of the host farm for the event and chairman of the Luing Cattle Society. The talk focused on the management of the Stanners' cattle since moving to the farm just over a year ago, the heifer management and calf growth rates, the benefits of a compact calving period, the suitability of the Luing breed to the area and how to select heifers for breeding based on pelvic measurements.
- Soil structure and nutrient status delivered by Neil Carter, Consultant for SAC Consulting in the North of England, focused on how beef and sheep farmers, depending on how the industry changes post-Brexit, may need to make sure they are getting the most out of their grassland in order to be efficient. Comparisons were drawn with how arable farms monitor their soils and their output and how this can be translated into grassland systems.
- Key diseases and how to manage them delivered by David Wilson, Veterinary Centre Manager at SAC Consulting

Veterinary Services' disease surveillance centre in St Boswells. The talk concentrated on BVD and Johne's Disease, how they spread, how to test for them and exactly how the tests work, as well as how to control the diseases through testing, health schemes, biosecurity and vaccination.

 Fluke risk in winter months - delivered by Lauren Porteus, farm vet at Scott Mitchell Associates in Hexham. This talk focused on Liver Fluke risk factors, how the parasite spreads, preventative measures and treatments, including resistance.





# **AgriScot 2017**

The XLVets stand at AgriScot 2017 was once again a very busy and exciting place with fertility being a key focus on the day. Farmers from as far south as Devon visited the stand to talk through the shape of the cow's pelvis and gain an understanding of what is involved in a Bull MOT.









Veterinary surgeon

Nathan Loewenstein

XLVets practice

Shropshire Farm Vets



# Nathan Loewenstein, Shropshire Farm Vets

# Controlling Johne's disease: risk assessments and protocols make the difference

Controlling Johne's disease requires a long-term holistic approach, and to prevent its spread, regular risk assessments and strict management protocols are needed, says vet Nathan Loewenstein of Shropshire Farm Vets.

In 2015, Shropshire Farm Vets launched a service called RE-MAP - the Reduction and Eradication of the causative bacteria Mycobacterium Avium subspecies Paratuberculosis. This combines the findings from individual cow milk tests with regular and comprehensive on-farm risk assessments, from which recommendations for changes in management can be made.



Tim and Louise Downe

Organic dairy farmers Tim and Louise Downes were already monitoring for Johne's through their milk recording service, and receiving help from Nathan. They were amongst the first to sign up to the RE-MAP service, and have already seen a significant drop in the numbers of animals testing positive for the disease.

The couple run a spring-calving herd of 270 Friesian/Norwegian Red cross cows at The Farm, in Longnor, south of Shrewsbury. The herd is extensively grazed, and cows average a yield of 5,500 litres/year, on an 'antibiotic-free' milk contract.



# **New stock risks**

Johne's disease had not been a recognised problem on the farm until 2013, when some youngstock were bought-in as part of the herd expansion plan.

When the disease was identified in around 10% of the new additions, and a few existing cows, isolation of high-risk animals and snatch-calving had to be adopted to ensure no further disease spread. To this end, cameras were installed in the calving yards which relayed video footage to the mobile phones of Tim and his herdsman, Andy Farrow.



The farm has 11 cameras operating during calving time, some of which can swivel around and zoom in on suspect calvings.

Last year, the couple took on a second farm -Webscott Farm, north of Shrewsbury - and have bought up two smaller organic herds to populate it. These have been joined by heifers from the main unit and the aim is to increase this herd to 250 milking cows, on a regular organic milk contract.

Nathan warns: 'Every time cattle are bought-in there's a risk of bringing in Johne's-infected animals. Farmers need to be selective about where they buy stock in from it is always worth asking about a herd's Johne's status and what control strategies they employ.'

Tim adds: 'Both these herds were already supplying our milk buyer, and had been having 30 cow screenings for Johne's. So we know that both herds have some disease, but the prevalence is low.'

# Staff engagement

Nathan adds: 'A whole team approach, with all farm staff involved, is essential if the control plans are to be properly followed.

Tim and Louise have between 6 and 8 staff working across the two farms - some of whom are students working their sandwich year.

Tim says: 'The cows will start calving from 1st February. So in January we gather everyone for a meeting and go through the protocols for calving, milking, feeding calves, breeding, and so on. We do have a lot of lists, and these get pinned up in prominent positions. Everyone needs to understand the importance.'

As well as notice boards and protocols, staff share information and send messages using the mobile phone app Whatsapp.

# **Assessing risks**

Nathan explains: 'The Johne's test isn't 100% accurate, and false positives and negatives do arise. Therefore, no cow should be condemned on the basis of one single test. Those with repeatedly positive results receive a red ear tag, and are treated as infectious. Cows that test positive once but then go clear are given a yellow ear-tag.'

The Downes' strategy is that red-tagged cows are not re-served, while yellow-tagged cows are given another chance, but are put to the Angus bull. The dairy daughters of any cows that test positive are diverted into a beef-finishing unit.

In addition to quarterly individual cow testing, the RE-MAP service includes regular on-farm risk assessments. Nathan makes quarterly visits to discuss individual cow milk results with Tim and Louise.

'Cow muck is the biggest risk,' explains Nathan. 'A milk sample from a Johne'spositive cow can contain 2-8 cfu/ml\*.

However, her faecal sample can contain over 1,000,000 cfu/g. Since the average cow produces 30kg/day of faeces, that's tens of thousands of infective doses!

'At drying off, the red and yellow-tagged cows are housed completely separately from

the Johne's-free cows, and calve down separately as well.

'Some farms have a boot bucket at the farm gate, but these are also needed around the farm so that muck from cows being milked is not being carried into areas with young calves.

'One risk factor that can be overlooked is the bull. Blood testing for antibodies is the only way to monitor their Johne's status, and this needs to be done at least twice annually. Not all dairy farmers keep bulls these days, but Tim does. Any bulls found to be Johne's-positive are kept in with the red/yellow-tagged dry cows.'



Bulls also need testing for Johne's disease

# **Feeding calves**

Nathan explains: 'Organic milk replacer isn't a viable option for this farm, and while pasteurising milk can kill MAP, it's not a 'silver bullet'.

'So the Johne's protocol for feeding calves states that no milk/colostrum from red and yellow-tagged cows is fed to any calves. As a precaution, no heifer milk is fed either, as these animals will not yet have had any milk tested for Johne's status, and heifers have been affected in the past.

'Instead calves receive milk from only the Johne's-free cows.'

Tim adds: 'If the person feeding the calves has also been milking, then they will have changed their clothes and washed their boots to prevent Johne's-contaminated muck getting into the calf shed.'

# **Tracking progress**

The practice holds regular meetings and benchmarks all the RE-MAP farms against each other to gain a picture of the Johne's picture in Shropshire. Nathan explains: 'These meetings are not to stir up competition! But serve to give farmers some ideas, and some encouragement.

Tim adds: 'These meetings are very useful -I can learn a lot from how others are managing the disease.' Nathan explains: 'What's more important than the actual level of disease on a farm is the change over time of its prevalence. This guides our decisions at both a herd and individual animal level.

'Johne's disease is not like fertility where you can have a good blitz and turn things around in a year. Farmers have to accept that it can take 10-15 years to control the disease - they are in it for the long haul.

'Tim and Louise have been very successful in reducing Johne's disease - with only around 8 red/yellow-tagged dams needing to be snatch-calved this year. This success comes from both acting on the milk test data plus adhering to the strict control protocols which minimise the risk of the disease spreading further.'

(\*CFU = colony forming units)

# Success factors for Johne's control

- Regular whole herd and individual cow milk testing
- Management of dry cows and calvina areas
- Milk and colostrum management
- Breeding protocols for red and yellow-tagged cows
- Selectivity about sourcing new stock
- Continual risk assessment



With help from their vet Nathan Loewenstein, Tim and Louise Downes have made significant progress in controlling Johne's disease.

# Using diagnostic tools to select the correct antibiotic



Veterinary surgeon Ed Hill

XLVets practice

Thrums Veterinary Group



Lee-Anne Oliver Veterinary surgeon

XLVets practice

Scott Mitchell and Associates



Veterinary surgeon

Andy Stokes

XLVets practice

Penode Farm Vets

Continuing our series on the responsible use of anti-microbials, the following pages provide outline information from three XLVets vets on the diagnostic tools available to identify the culprit bacteria behind infections, so the most appropriate antibiotic treatments can then be

Ed Hill from Thrums Veterinary Practice outlines what farmers can do to reduce/cease antibiotic treatments in their sheep flocks; Lee-Anne Oliver of Scott Mitchell and Associates runs through testing options for pneumonia in calves, and Andy Stokes of Penbode Farm Vets explains how bacteriology tests provide information to improve mastitis cure rates. Recommendations on livestock management are also made, as this impacts on an animal's immunity and ability to recover from disease.

# Reducing antibiotic usage on sheep farms

Although antibiotic usage in sheep farming is considerably lower overall than the cattle sectors, there is still a degree of unnecessary use and misuse. Here, Ed Hill of Thrums Veterinary Group outlines the key areas.

There is scope on many sheep farms to either reduce some antibiotic usage, or to practise more 'responsible use'. Three key areas to

- 1) Treating lameness is it the right antibiotic for the job? Could lameness incidence be
- 2) Enzootic abortion should preventative measures have been taken instead?
- 3) Indoor lambing can a change in management practices reduce or avert the need?

#### **Treating lameness**

Where sheep are lame, a physical examination of the feet should always be made to identify the cause. For the treatment of CODD and footrot - antibiotic treatment is required but the type of product differs, according to recent research. If it's shelly hoof or an abscess, then trimming may be required and antibiotics may not necessarily

Antibiotic treatments should be made as part of the five-point lameness control plan which takes a holistic approach including building immunity, selective culling, reducing exposure and improving biosecurity. If lameness incidence is greater than 5%, it is worth speaking to your vet for specific advice.

#### **Enzootic abortion**

Earlier this year our Thrums practice saw several outbreaks of enzootic abortion in clients' flocks, due to a combination of poor biosecurity between farms and complacency leading to lapsed vaccination programmes.

In the face of an outbreak, a blanket treatment consisting of two doses of oxytetracycline may prevent some further abortions in the remaining in-lamb ewes. This costs time and money to treat, and is far from being 100% effective.

Ewe replacements should be sourced from EAE-accredited flocks; however this is not always possible as the scheme has lost popularity in recent years. Farm boundaries and neighbouring sheep also pose a risk: some of the outbreaks we experienced were due to carrion transferring abortion material across farm boundaries, which is difficult to prevent. As such, vaccination is the best policy, and a single shot given prior to first mating will protect for life. There are three different vaccines available for EAE, so speak to your vet about implementing the most effective vaccination strategy for your flock.

## **Indoor lambing**

In these situations, stocking density is higher than when lambing outdoors, and consequently the bacterial challenges are

Where watery mouth and scour have been a problem in the past, some farms treat all newborn lambs with an oral antibiotic as a matter of course, and fear the consequences of not doing so.

However with some management changes, this treatment could be reduced or stopped. The first goal is to improve the immunity of the lambs so they can better withstand any disease challenge. For this, ingestion of good quality colostrum in a timely fashion is key. Ewes need to be in the right body condition and receiving adequate nutritional protein to produce plenty of good quality colostrum. By metabolic profiling ewes 4-6 weeks before

lambing, there is time for their nutrition to be adjusted to ensure protein and energy requirements are met.

Pay attention to their environment too. Ensure pens are not overstocked. A well-ventilated but draught free shed is important, and mucking out and disinfecting lambing pens between each use is vital.

Crutching ewes will help lambs find the milk sooner and reduce bacterial contamination around the udder. But if in doubt a lamb has suckled, take the time to put the lamb onto the ewe, or milk her then stomach tube the lamb. If needed, taking colostrum from another ewe is better than using commercial powdered products, which should be saved as a last resort

Recent study groups have shown that one of the biggest factors that reduces lamb mortality is the staffing level per ewe lambing. Carrying out all the suggestions above takes time and as such, it may be worth spending a little more on labour to maximise lamb survival and minimise the antibiotic bill!

Following the above measures should allow routine antibiotic use in the lambing shed to be minimised, and targeted to those that require it such as those with a poor start in life or triplets. Ideally, over time, by paying attention to management routine, antibiotic usage can be stopped altogether.



# Calf pneumonia: use diagnostics to identify the cause(s) and take 'responsible' actions to prevent it

Pneumonia can be a chronic low level winter problem, or a new acute outbreak can have serious consequences for calf health and performance. Identifying the cause(s) is key, so that appropriate preventative actions can be taken, according to the situation. Here, Lee-Anne Oliver of Scott Mitchell and Associates explains how diagnostics can prevent its recurrence.

Once a calf has had a bout of pneumonia, the long term damage to the lungs has been done. They will always have to work harder to breathe, growth rates are depressed and animals never thrive. So prevention is always better than cure.

## **Predisposing factors**

Whether or not a calf succumbs to pneumonia depends on the see-saw of: exposure to the bacterial/viral challenge versus the strength of its immunity.

There are several factors which can make calves more susceptible:

1) poor colostrum intake in the first 24 hours;

- 2) BVD infection which has an immunosuppressive effect both on the PI animal itself and also to its pen mates as it sheds the virus:
- deficiencies in trace elements such as selenium which reduce an animal's ability to respond to disease challenge;
- 4) other concurrent diseases such as residual lungworm after the summer;
- 5) poor housing conditions.

In some cases, housing conditions can be improved with just small changes. Good air quality and low humidity reduce disease pressure: so check sheds for leaking water troughs or guttering which may be making the bedding wet. Ensure calves are not housed near draughts, and in cold weather consider the use of calf jackets.

#### New pneumonia cases

Where there is a new outbreak of pneumonia, it's important to enlist the help of your vet to determine which pathogens are present, and thus what action is needed.

In the face of an outbreak, it will be too late to use an injectable vaccine on sick animals as it takes time for the protective cover to develop. However, vaccines administered intra-nasally give protection quicker, and in some circumstances could be used on those calves yet to succumb to infection.

The results from diagnostic tests carried out now, will be useful to have in advance of next winter

# Use an NSAID!

When treating pneumonia cases with antibiotics, it's a good idea to also administer an NSAID: this reduces the animal's temperature, reduces pain, and also helps the calf to keep eating. NSAIDS can also reduce lung damage.

# **Diagnostic tests**

Diagnostic testing is needed to find out exactly which pneumonia pathogens are present on a farm, not just whether it is a viral or bacterial issue.

If the cause is only viral, then antibiotics will have no effect, and using them is irresponsible both from a resistance perspective and also cost! However they are often prescribed to treat secondary bacterial infections after the initial viral damage.

In an acutely infected (live) calf, a nasal swab can be taken for PCR testing in a laboratory: this will identify any viruses present. From the same calf, a blood sample can be taken at the same time, and again 3-4 weeks later. During this period the calf will have raised antibodies against the infection, and laboratory tests can identify the cause.

Where calves have died, then post-mortems are very useful: examining one dead animal can provide the answer instead of taking samples from live individuals. To maximise the chance of a successful post-mortem diagnosis, carcases need to be as fresh as possible - less than 24 hours old.

Calves which are freshly dead, and untreated with vaccine or antibiotic, are 'pure gold' and tend to yield the best results in the search for causative bacteria and/or viruses.

There is an argument that all stock that die on a farm should have a post-mortem to build up a disease profile.

## 'Grumbling' problems

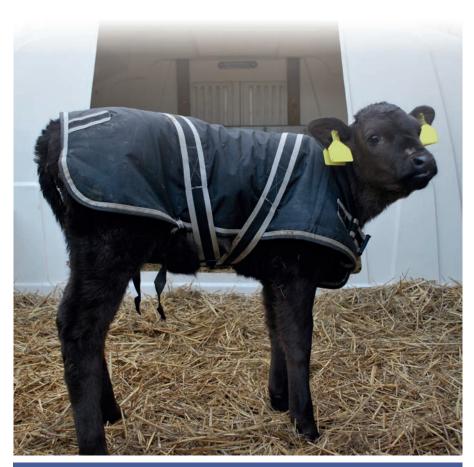
On some farms, pneumonia can be present at low levels every year - a 'grumbling' problem. Although antibiotics can be used to remedy it, calves will still have suffered lung damage and potential performance is compromised. So it is worth talking to your vet about preventative strategies which may be vaccination and/or improving the housed environment.

Sometimes our vets are called out to see chronic cases of pneumonia. The calf may have had several courses of antibiotic and basically its lungs are 'shot'! Giving more antibiotic is a waste of time (and money), and a misuse of antibiotics. Don't keep treating the calf! Euthanasia may in fact be the best option.

# **Vaccination programmes**

Farms which have a history of pneumonia in the cattle shed, can significantly reduce their antibiotic usage by adopting a vaccination programme.

But there are many different pneumonia vaccines on the market these days. Once the causative pathogens have been identified by diagnostic testing, then vets can prescribe an appropriate product or combination of products.



# Diagnosing the best treatment for mastitis in milking cows

Good cure rates for treating mastitis require identification of the culprit bacteria so that the 'right' antibiotic product can be prescribed. Here, Andy Stokes of Penbode Farm Vets outlines some options for testing.

Mastitis can be caused by a variety of pathogens. Bacterial populations also vary between farms, and between cows on the same farm. However, within this complex and multifactorial disease, a single pattern or trend of mastitis cases tends to predominate.

The bacteria that cause mastitis may be of environmental origin (e.g. *E.coli*), or contagious and spread via milking equipment (e.g. *Staph. aureus*). The environmental bacteria tend to be Gram-negative and so require different antibiotic treatment from contagious pathogens (which are Gram-positive).

So at a very basic level, just knowing which pathogens are the main problem on a farm enables a more targeted choice of antibiotic to be prescribed for the majority of cases.

## **Acting on mastitis**

In the parlour, when clinical mastitis is found, prompt treatment action is needed. The

sooner the treatment starts, the better the cure rate and the less irreparable damage will have been done to the udder tissue.

We benefit from more and more technology to help us detect mastitis early; some robotic milking systems measure the conductivity, colour, temperature and yield per quarter at every milking. Many conventional parlours have their own detection systems. But is this information acted upon and the suspect quarter properly assessed?

Before administering any intra-mammary tube, take a sterile milk sample from the affected quarter(s) and freeze it – marking the cow ID, the quarter affected, and the date. Then, if treatment fails, the sample can be tested and culprit pathogen(s) identified. A change of antibiotic may be needed. But remember, it's very important to take the milk sample before treating with antibiotic! To help ensure this happens, it's a good idea to make it part of the farm's mastitis protocol.

Where a cow's cell count is high, but there is no clinical sign of mastitis, there is more time to identify the cause. Again, take a sterile milk sample and send for culturing to identify bacteria.

## **Ongoing monitoring**

Bacterial populations are very individual to each herd, and may also alter over time. So to make sure that the treatments being given are still correct, 6-monthly monitoring of mastitis cases is recommended (or more often, as advised by your vet).

The pre-treatment samples can be sent in one batch for bacterial analysis every 6 months.

The results from these will help your vet ensure the most appropriate products are being used.

For an additional fee, all samples should be exposed to different antibiotics in further laboratory testing, and their 'sensitivity' checked. This can be especially useful if cure rates have been disappointing, and it is either taking a long duration of tubes to treat mastitis, or if there are lots of repeat cases. Either an inappropriate antibiotic is being used, or it may be the 'right' antibiotic, but resistance has developed.

# Hygiene and health

Whatever the bacteria present on a farm, prevention is better than cure and this is the best way to reduce antibiotic usage. The

AHDB Mastitis Control Plan is a great way for your vet to assess the whole dairying operation and advise if changes in cow management are needed. Whatever treatment is needed, good hygiene and cow health will aid recovery from mastitis.



# Selective Dry Cow Therapy (SDCT)

SDCT undoubtedly provides the biggest opportunity for dairy herds to cut back on antibiotic usage.

To adopt an SDCT strategy, good individual cow record keeping is needed, plus it's important to know a cow's cell count at drying off. But this is the stumbling block for farmers who don't milk record.

However, this past year some XLVets practices, including Penbode Farm Vets, have been trialling a new diagnostic tool which identifies sub-clinical mastitis. The QScout machine accurately measures the white blood cells in a milk sample and gives results for individual quarters in just a few minutes.

This instant assessment is allowing those farms which don't milk record to safely adopt SDCT, and improving the accuracy of decisions for those who do.

10



# THRUMS VETERINARY GROUP



Veterinary surgeon Graeme Richardson





# Graeme Richardson, Thrums Veterinary Group

# Vaccination protocol adjusted to keep pneumonia at bay

On any farm, the bacterial and viral populations can change over time. So vaccination protocols may need adjusting if new disease pathogens have entered the herd/farm, or increased in prevalence. This was the case for Angus beef suckler farmer lan Patullo whose calves were succumbing to respiratory disease despite vaccination. Vet Graeme Richardson from Thrums Veterinary Group identified the cause as bacterium *Histophilus somni* and has revised the protocol to include an additional vaccine.



# **Herd management**

lan Patullo runs a 150-cow spring calving suckler herd across two locations - Barnsdale Farm and Sandyford Farm - near Kirriemuir in Angus.

As well as the beef enterprise, lan farms just over 500 acres of arable land growing potatoes, winter wheat, spring barley and spring oats, oilseed rape and also grain rye for silage.

He breeds the majority of his replacement heifers, using two Charolais bulls, plus a black Limousin and red Limousin bull, and has recently purchased a Simmental. 'The plan at the moment is to criss-cross the cows onto Limousin and then Simmental,' explains lan.

In order to keep a tight calving block, bulls are usually run with cows and heifers for 11 weeks, but in the past year this was cut back to 10 weeks.

lan explains: 'Calving in spring makes best use of my stockman's time, and frees him up in the

autumn to help with the harvests. It's also more economical to rear calves off grass. So any cows not conceiving in the breeding period are strictly culled from the herd.'

Cattle are brought inside in early October. Before that, cows and calves are weaned outside, by separating them with an electric fence which gives them sight of each other for a week or so, before they are brought inside into separate sheds.



Due to the wet autumn weather this year, two mobs of cows and their calves were brought into one of the sheds early, and calves weaned at the same time. Ian explains: 'They were separated but still had nose-to-nose contact. After a couple of days, they had all settled down. The location of the shed means cows can be put back out quite easily if the ground becomes drier again.'

lan finds grass growth in the long term leys is slow to get going in the spring and so cows are only turned out at the end of April/early

lan explains: 'We used to have a bull beef system with all bulls away to the abattoir by

the end of June, and heifers by the end of August. But from 2016 onwards, we are now castrating all the bulls; it takes the steers an extra 4-6 weeks to finish.

# **Vaccination protocols**

Weaned calves are all brought to the Sandyford site to be housed in three sheds; they remain in these until they are finished. They are fed rye silage, barley and distillers dark grains.

At housing, calves receive an IBR marker vaccine by injection, together with an intra-nasal vaccine which protects against PI3 and RSV. The herd is BVD-free accredited, so calves do not need vaccinating for this disease. However, lan takes the precaution of vaccinating his breeding animals.

Graeme explains: 'Intra-nasal vaccines have the advantage of conferring full protection in just a few days - they also give local mucosal-based immunity, with antibodies produced in the areas where they are required.'

Calves are distributed into pens in the different sheds according to their size and sex.

lan explains: 'The age and designs of the three sheds vary. The smaller/younger calves are selected out and put into the shed which has the best ventilation. In the other sheds, the stronger/older ones are grouped together. This always leaves a rather uneven 'middle' group, which tends to be more susceptible to disease'

Vaccination protocols to protect calves against respiratory disease have been in place for

more than 10 years. However, two winters ago, some of the calves in the 'middle' group were becoming ill.

lan explains: 'We could have half the calves in a pen looking dull and losing their appetite. They didn't show the classic signs of pneumonia - there were no snotty noses, nor a quick deterioration in health. We just noticed they lost their appetite and even when treated with antibiotic it took them quite a while to get back to normal. Normally, if a calf is going to succumb to pneumonia it happens quite soon after housing, but these calves were falling ill in November and December. Something wasn't right.

He adds: 'And it was always the males that were more susceptible. We put this down to feeding them more concentrate, so they were a bit "softer".'

Graeme adds: 'lan is right - at the time, these were bull beef, and these tend to be on a higher plane of nutrition and growing faster. They can be borderline acidosis cases, and will also be under more stress, both of which make them more susceptible to disease.'

Taking into account the clinical signs, and with knowledge of the vaccinations being given, and the varied success of the antibiotic treatments, Graeme was able to diagnose the problem as the bacterium *Histophilus somni*. He explains: 'This is actually quite common and is often in the mix with other pneumonia pathogens. But because it is hard to culture in a laboratory, it often goes undiagnosed.

The classic signs are calves with an ear cocked at an angle, or carrying their head to

one side. It invokes a 'slow fever' rather than the typical 'breathing hard' that is seen with other pneumonias. On examination by stethoscope, there is also a different sound in the chest of the animal.'

Fortunately there was a simple solution, as a relatively new vaccine specifically designed for *Histophilus somni* was available off-the-shelf. So last 2015/2016 winter, the males in the 'middle' group were given this additional vaccine.

lan says: 'Instead of needing to treat a dozen calves with antibiotic, we only treated two and their recovery was a lot quicker than the sick calves in the previous winter.

## **Protocol reviews**

Graeme advises: 'Bacterial populations on a farm can change over time. So if there are problems with respiratory disease in cattle sheds this winter, it's worth reviewing the vaccination strategy with a vet to see what alternatives there are, especially if it's been the same protocol for some time.

'New vaccine products come to the market all the time and are always improving. For instance, 10 years ago, BVD protection was being included in some vaccine products. But for some farms this won't be needed any more - it just adds to the cost and also creates BVD antibodies which can be misleading when screening for the disease.

'Management is also important - lan's case demonstrates the role that good ventilation plays in reducing disease pressure.'



# TYNDALE Farm Veterinary Practice



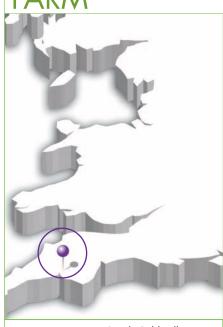
Veterinary surgeon

Bryony Kendall

XLVets practice

Tyndale Vets

# CALWET



Veterinary surgeon

Sarah Caldwell

XLVets practice

Calweton Vets

# Bryony Kendall, Tyndale Vets and Sarah Caldwell, Calweton Vets

# XLVets' support of charity shows UK and African dairy farms face similar challenges (but for different reasons)

XLVets is supporting the charity 'Send A Cow' which helps families in African countries to become self-sufficient in food. This is done not just by gifting them cows or goats, but also includes ensuring they have the skills and knowledge to look after them.

XLVets is supporting the charity by training its extension officers in aspects of dairy husbandry and production. Two vets from different XLVets practices are going out to one of the African countries twice a year to spend two weeks visiting farms to understand and resolve any issues, and also running practical training courses.

Bryony Kendall of Tyndale Farm Vets in Gloucestershire and Sarah Caldwell of Calweton Vets in Cornwall were the first two vets to provide training, and travelled out to Kenya last October.



(Left to right) Bryony Kendall and Sarah Caldwell holding a giant African land snail.

Bryony explains: 'Although the climate and scale of farming are very different from the UK, African dairy farmers still have very similar challenges - getting cows back in-calf, housing, feeding, youngstock rearing...but the factors behind their challenges can be quite different.'

# **Training**

Bryony explains: 'On this first course, there were six people from the host country Kenya, plus one from Uganda, two from Rwanda, and one from Burundi - which is a country that won't be hosting any training due to the political unrest there.

The Send A Cow extension staff are all native to their countries, and have degrees or diplomas in agriculture. But their knowledge and experience with animal husbandry can be limited as colleges in African countries often lack resources, and so teaching is theoretical rather than practical.

'Our aims are to teach them to be able to walk onto a smallholding and evaluate whether livestock are being looked after properly and give advice as necessary. This has encompassed the concept of 'Cow Signals', and we've shown them how to assess body condition scores and rumen fill, etc. We used a traffic light system to objectively record this information and provide a clear visual assessment of what is good, and what needs improving. This also allows comparisons to be made between visits'

Bryony adds: 'The XLVets and FarmSkills ethos on training is to keep it very practical, and where possible to have fun doing so.

'For example, we noticed on some of our farm visits that cattle had wounds on their legs. This was from being tethered, and was considered 'normal'. So we taught the Send A Cow staff how to make halters from a

piece of rope, which is a much better way to handle and restrain cattle.' (Figure One: This farmer had been taught by one of the extension officers, after the course was over.)



Dairy challenges

Bryony explains: 'The timing of calving is very important: it needs to be at the start of the wet season when Napier grass is plentiful.

'Some farmers have bred small herds of up to 10 cows, but typically they only have one. Cows are always bred using Al. But it's not easy to pick up signs of oestrus when the cow can't show any bulling behaviour! So often cows have protracted calving intervals up to 600 days in some cases.

'We taught the extension officers about the secondary signs of heat: bellowing, restlessness, pinkness around the vulva, vaginal discharge, and increased 'friendliness'. Having learnt this, they can then go and train their farmers to look for these signs.'

# **Learning fun**

Sarah explains: 'The following picture is of an oestrus detection game! Half the delegates were cows and half farmers.

The 'cows' had to display oestrus behaviours and the 'farmers' then had to pick out cows ready for serving. Having been taught halter-making a few days before, they decided to include these in the game as well!

'Since our return home, we have received videos of this game being passed on as a teaching aid by the extension officers, which is exactly what we had hoped would happen!'



# **Shed designs**

In African countries, cattle housing is needed to protect animals from heat. The small numbers of animals on a farm can complicate management.

Bryony explains: 'The charity's aim is that farmers will ultimately be increasing their herds to maybe 50 cows. So it's important to have sheds designed to allow for subsequent expansion.

'Housing designs differ by region and we asked everyone to draw out the typical dairy buildings in their country. Then we discussed the pros and cons together.

'Separate sheds for young calves are not feasible, so sometimes they are kept on raised slatted pens in the corner of a shed, or in with the cows where they may get bullied. One solution was to install some partitioning.'

Sarah explains: 'Bryony and I spent a lot of time evaluating the cattle housing on Kenyan farms. We established that loafing areas and cubicle designs often needed alterations to improve cow comfort. The space provided for the calves or youngstock was also often inadequate.

'From our visits, we have re-set the charity's minimum requirements for housing. Before a family or community can be gifted an animal, they need to have these facilities in place.'

This shed (below) was constructed according to the revised dimensions, and enabled the Send a Cow delegates to familiarise themselves with the new layout.



'We also discussed youngstock nutrition,' says Sarah. 'This included colostrum and milk feeding, rumen development, and how feeding correctly in early life has a significant impact on the health and production of that cow. This is even more important when there are only one or two animals.

'Given the heat that calves were exposed to, water was also limited in most cases. From our teaching about the oesophageal groove, delegates were able to understand how water from milk cannot be utilised in the same way, and why an adequate supply of fresh water is vital.'

# **Further training**

Bryony adds: 'We found the Kenyan farmers were fantastic at keeping records - all handwritten - on every cow. Individual cow yields were recorded daily. The data is there and will enable the extent of any changes to be seen. The mantra: 'Measure, Manage, and Monitor' is just as relevant for African smallholders as it is UK farmers.'

In May, Charlotte Debbaut of Tyndale Vets and Thaddeus Clifton of Midshires Veterinary Group went to Uganda for two weeks to continue the training, which included the additional topics of mastitis and calving assistance. This November, Hannah Walford of Belmont Vets and Rob Howard of Scarsdale Veterinary Group were training in Rwanda.



Sarah adds: 'This photograph shows one of the highlights of our visit: this community, many of whom were widowed, had received a cow from the charity, and it had significantly improved their lives. They were so grateful that they put on an amazing display of dancing and singing on our arrival. That day we saw the charity's success and sustainability with our own eyes'.

# 20 **FARM & EQUINE** A Portresship for health



Veterinary surgeon Rob Henderson

XLVets practice Midshire Veterinary Group



# Rob Henderson, Midshire Veterinary Group

# Team effort keeps high yielding dairy herd healthy

The good health and performance of Tim Sinnott's high yielding dairy herd is maintained thanks to his attention to detail in herd management, and also to the combined efforts of a team of people who each have a role to play in herd care. One team member is vet Rob Henderson of Midshire Veterinary Group in Nuneaton, who has been supporting Tim for the past 17 years.

At Ivy House Farm near Congerstone in Leicestershire, the 240-cow dairy herd is averaging a yield of 12,300 litres/cow on three times a day milking, housed all year

The herd calves down between July and December. With 800 acres of arable land as well as the dairy, this allows staff a break over the winter months, and fewer cows need milking during the busy harvesting and drilling

# **Fertility checks**

Through the calving and service periods, Rob makes weekly fertility visits. Cows receive a post-calving check at 3 weeks. The farm has a 42-day voluntary waiting period, and any cows not seen bulling at 42 days are also checked by Rob. Cows are pregnancy-tested from 30 days of gestation.

Rob explains: 'For the calving pattern to work, Tim needs the cows to get back in-calf as soon as possible. So the calving to first service interval is a key factor. Our target is 65 days,

and the herd is well within this at 57 days.

Tim says: 'We've got to be proactive. We try not to let any cow go beyond 70 days without being served for the first time. We use a fixed time breeding programme, when required, to achieve this.

'We are fairly ruthless! Nothing calves after Christmas! We cull those that fall outside the pattern - they would only end up getting overfat - and usually sell them on. It's perhaps partly why we've got a herd with good fertility.

'Our replacement rate is 23%. We don't tend to cull many for mastitis or feet."

# **Transition management**

'Managing cows through the transition period is crucial,' says Rob. 'We need to get it right as this underpins fertility performance.

To monitor energy status in the herd, blood samples are taken for metabolic profiling from close-up dry cows, and early lactation cows. This is done at the start of the calving season and proactively through the season, if there are any concerns.



#### From straw to sand

Cows used to be housed in straw-bedded loose yards. But four years ago, despite good management, the number of clinical cases of mastitis was reaching 70 cases/100 cows/year.

Rob took Tim through the comprehensive AHDB (then DairyCo) Mastitis Plan to identify how to resolve this. Part of the problem was stocking level. Rob explains: 'The yards were well managed but the stocking density was a bit higher than we would have liked for high yielding cows. Plus at that time, Tim was looking to increase cow numbers.

'So the choice was either to reduce herd size, increase the area allocated to straw yards, or change to cubicles bedded with sand. Tim chose the latter, and today clinical cases of mastitis are down to 12/100 cows/year.'



Dairy farmer Tim Sinnott and vet Rob Henderson a working partnership of 17 years!

Rob adds: 'One of the other choke points identified had been the old transition yard in which cows would calve. With straw storage no longer taking up space, a new transition yard could be built with separate individual calving pens close by. Cows are now moved out of the yard and into a pen, where they can calve down onto clean straw. These pens are mucked out after every calving, so ensuring good hygiene is maintained.'

#### **Team efforts**

Tim is keen to stress that the farm runs smoothly thanks to the excellent team effort from everyone involved.

This includes his three full-time staff - Roy, Kevin and Nicole, and two night milkers.

Also involved closely with the herd - as well as Rob, are Tim's nutritionist Alison and heat detection/RMS manager Nick. Every June, at the end of the service period, these four gather to review how the herd has performed and identify any issues which may need addressing.

Rob explains: 'At the June 2016 meeting, we all discussed the herd's performance and agreed it had been a 'satisfactory' year. However, the fertility figures weren't as good as previous years. Of particular concern was the conception rate which had fallen to 34%. We'd also had more cystic cows and endometritis,

and quite a few more LDAs. The energy status of the close-up dry cows and early lactation cows, according to the metabolic profiles, was disappointing, too. These were all little niggles, but we reviewed the herd's management, and everything else seemed fine.

'The only thing that we could find that wasn't quite right was the borehole water analysis.'

# Water quality

Ten years ago, a borehole was drilled on the farm; its location enabled this new 'free' supply of water to reach all the buildings, and enabled big savings to be made. The water is tested annually, as stipulated by the farm's assurance scheme.

Tim explains: 'The cow sheds have tipping troughs which used to get cleaned out once or twice a week. But the water had been getting smelly, and so troughs were being cleaned out every other day. We just thought it was a problem with the galvanising on the tanks.

'Then one day when our nutritionist visited, she suggested we get another water analysis done. Nitrate levels have always been a bit high, but the new results now showed high levels of iron and sulphate as well.'

These results were discussed at the June team meeting. Following which, Rob set about investigating whether this could be affecting the herd's health. Through one of the internet forums available to XLVet practices, he asked his fellow XLVet vets for help, and was given the contact details for a specialist mineral consultant.

The consultant confirmed that the borehole water quality would be affecting its palatability. Although the cows had got used to it, their water intakes would be lower, and this would be depressing DM intakes too.

Rob adds: 'This might explain the lower energy levels found in metabolic profiling, and poorer reproductive health of the cows. Because the herd had been moved onto three times a day milking around the same time, the consequent depression in milk yields had been masked.'

There were two solutions:

- 1) spend around £30,000 on a tanking and filtration system, or
- 2) stop using the borehole water and switch back to paying for a mains supply.

The second option was chosen, and overnight, milk yields went up 2 litres/cow! Problem solved.

Rob explains: 'The water switch was only made in November last year, and it will take a while for the effects to be evident in the overall herd fertility results. However, as shown in the **table**, the performance over the 2016/2017 period has improved from the year before.'

Tim adds: 'This case is just one example of why we have a team of people, each with a different expertise, working together to achieve our goals. Our annual meeting acts as a review of the past 12 months and helps focus the team's approach on herd management for the coming year.'

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Self-locking yokes in all the sheds make handling cows a lot easier

## Herd Fertility at Ivy House Farm (across the calving and service seasons)

	August 2015 – March 2016	August 2016 – March 2017
Conception rate	34%	40%
Submission rate	73%	76%
Pregnancy rate	25%	30%
Calving to 1st service interval	61 days	57 days
Calving to conception interval	97 days	95 days
100 day in calf rate	61%	68%
Calving interval	377 days	376 days



Veterinary surgeon David McCrea

XLVets practice Capontree Veterinary
Centre



# **David McCrea**, BVM&S MRCVS Capontree Veterinary Centre

# Lameness in dairy herds - how can we improve things?

AHDB has trained mobility mentors who actively work with their dairy farmers to reduce the cause of lame feet, leading to happier, healthier and more productive cows, using the Healthy Feet Programme.

# What is the AHDB Healthy Feet Programme?

The AHDB Healthy Feet programme is a stepwise approach to help you identify the cause of lameness on your farm (every farm is different), devise an action plan and develop skills needed for long term lameness control.

The first step is to accept that you have a lameness problem on your farm.

The second step is to locate a mobility mentor in your area. You can find a map of mobility mentors on the AHDB website (see right). These mobility mentors are a group of vets or licensed NACFT hoof trimmers who are enthusiastic people and have a passion to control lameness.

# How the programme works

Once enrolled the mobility mentor works through a structured programme of four steps.



Mobility mentor map



## STEP ONE

Skills review → Look at some cows' feet. Identify who does the routine trimming? Who identifies lame cows and when are they put forward for trimming?

Diagnosis → Discuss how different feet problems occur and what conditions are most commonly seen on your farm. A lesion picture card helps aid the diagnosis of commonly seen problems. Paperwork from foot trimmers identification of the most common issues on that farm.

Cost → Attempt to put a cost on how much MONEY lameness is costing you.

**Training** → Assess the current effectiveness of trimming and treatments.

# Devise a Lameness map

Low infection pressure

Good horn quality and hoof shape

Digital dermatitis <

White line disease

Early detection and prompt, effective treatment

Low forces on feet (cow flow, cow comfort)

A lameness map shows us pictorially what is happening on that particular farm and what the main cause of lameness is. This visit takes 3-4 hours.

Sole ulcers

# STEP TWO

A full farm risk assessment. This visit is carried out around milking time. We ask lots of questions and we go where the cows go.

We measure everything e.g. number of cows vs number of cubicles, forage/concentrate ratio, feed barrier space, cuds per minute, hock sores, 6 point footbath fitness test and cubicle dimensions. This visit helps us identify where the infection pressure occurs. What is the horn quality and foot shape? What forces are on the cows' feet and where do these increased forces occur, it especially looks at cow flow and cow comfort. Early detection and prompt treatment are a key to success (is this happening?). This visit takes 2-3 hours.



## STEP THREE

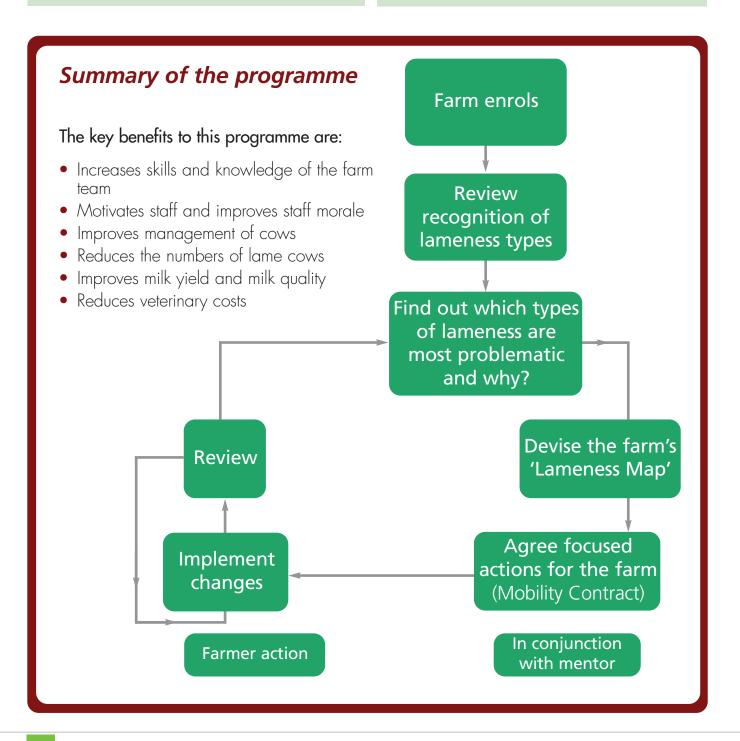
Following the first two visits, we are now in a position to help the farm team understand the critical points on the farm and how they are contributing to increased lameness issues.

This meeting needs to be held with everyone on the farm who has an input into feet issues on the farm. Solutions are discussed and action points are agreed. The culmination of this step is the production of a 'Mobility Contract'. This is a document with agreed points of action. Some of these agreed points may be cheap to implement others may require a financial investment so a return in investment must be displayed.

## STEP FOUR

The plan will not reduce lameness unless the proposals are implemented.

The herd should be mobility scored at the start of the programme and every three months to ensure that improvements are occurring. Mobility mentors will review how the action plan is being implemented by follow-ups at appropriate intervals. New team members should be updated and reviews should be done to ensure that effective change is taking place.



# CASE STUDY

I have worked closely with several farmers in the battle to beat lameness. On one particular farm we identified that forces on the feet were the major contributor to lame cows. We reviewed the foot trimming and a few adjustments were made. We identified two areas on the farm that were contributing to increased forces.

1 Exit of the parlour and a sharp 90 degree bend. This was placing extra

- torque on the feet and an increase in solar ulcers.
- 2 Entrance to the foot bath was rough concrete and irregular concrete slats. We completely revamped this area and this improved cow flow and reduced force on the feet.

The ability to trim lame cows' feet as soon as possible after noticing that they are lame is key. Some farms will only get these cows

trimmed when the foot trimming contractor is on farm. This may be weekly, fortnightly or even monthly. Ideally these cows should be trimmed as soon as possible after identifying that the cows are lame. I would highly recommend that at least one person on the farm has been trained in foot trimming and has the knowledge and skill to trim those lame feet properly.

Visit the farmskills website and find a foot trimming course in your locality.







# Cattle mobility and foot trimming course

#### Learning outcomes:

- Describe normal bovine locomotion and relate this to the AHDB mobility scoring system,
- Recognise lameness and grade severity,
- List the key features of bovine foot anatomy. Relate these anatomical features to key aspects of physiology blood supply, normal claw horn growth and overgrowth,
- Understand the theory of the 'Dutch method',
- Safely restrain a cow and pick up feet using a foot crush,
- Apply the theoretical knowledge of preventative trimming practically,
- Practically reinforce the key anatomical and physiological principles learned and relate this back to the practical application of the 'Dutch method',
- Recognise the causes of foot lameness in cattle (sole ulcer, white line separation and abscess, Digital dermatitis,Inter-digital necro-bacillosis, Heel erosion, Inter-digital hyperplasia),
- Describe the basic aetiology of sole ulcer and white line disease and relate this to anatomy and physiology learned and the specific risk factors for claw horn disease,
- · Describe Dutch curative foot trimming theory and relate this to lameness aetiology and the anatomy and physiology learned,
- Know when and how to apply blocks,
- Know when and how to apply medical treatments or seek specialist/veterinary attention,

# If you are interested in attending a Cattle mobility and foot trimming workshop, check out the FarmSkills website to find a course near you, or phone: 01765 608489 (see selected dates below)

18th & 19th January	Bishopton Veterinary Group	Ripon, North Yorkshire
23rd & 24th January	St Boniface Veterinary Group	Exeter, Devon
24th January	Lambert Leonard and May	Whitchurch, Shropshire
6th February	Armour Veterinary Group	Hurlford, Ayrshire
7th February	Capontree Veterinary Centre	Brampton, Cumbria





Veterinary surgeon Lauren Porteus

XLVets practice

Scott Mitchell and Associates



Lauren Porteus, Scott Mitchell and Associates

# Following the seasons

Based in Hexham, Scott Mitchell and Associates has a small farm team of four vets, plus one Vet Tech. The practice area extends almost to the Scottish border, west into Cumbria and south into Durham. This is predominantly a beef and sheep farming area, so veterinary work is very



# Seasonality speeds expertise

I joined the practice in October 2016 - and went straight into autumn calving work. It was a steep learning curve! This led into a busy springtime calving with the lambing season added on top. Come summer, we were looking towards the next year with bull breeding soundness examinations, then tup testing and vasectomies.

Due to the seasonality I've been able to improve my competency very quickly as l'vebeen doing the same operations and tests, repeatedly. In fact, between January and June, I carried out 23 cattle Caesareans by myself, four of these in one day!

# Safety

BVA statistics show that in 2016, over 50% of farm vets suffered an injury at work. Safety and communication was therefore a topic covered in one of the modules of the XLVets Graduate Training programme that I attended.

We learnt that one of the biggest risks for injuries is TB testing. We are fortunate here that TB testing is every 4 years (although this may change in the future). The downside is that some farms' handling systems are not always the safest for this task! But I do find our farming clients have a lot of consideration for their vet's safety! And I will speak out if I think changes are needed to make the situation a safer one for me and farm staff.



# **Health planning**

In 2010 the practice made it compulsory for all farm clients to have a herd or flock health plan, in order to purchase medicines. So once a year, farmers sit down with their vet to review the past 12 months, discuss any production issues, and look ahead to the next year, e.g. plan vaccination and worming programmes. This health planning enables farms to keep up-to-date and efficient, and ultimately work together towards a more proactive approach.

Some farmers have been health planning for several years now, and are really seeing the value! In a recent health plan, one farmer had introduced footrot vaccination and culling on a selected group of sheep, and in this year's review we discussed the massive reduction in lameness cases in their flock.

Even small changes can have a big impact. Many clients have been able to reduce the number of worming treatments used in their sheep because faecal egg counting has been adopted. Sheep are only wormed when egg counts show treatment is required; this means fewer anthelmintics are used, helping to reduce the risk of resistance development, as well as saving time and money.

# **Sheep meetings**

Earlier this year we started an informal club for all our sheep farming clients in which different aspects of flock performance are going to be discussed, and the measuring and monitoring of key performance indicators, encouraged.

About 20 farmers came to the first meeting where the focus was on the benefits of recording problems commonly encountered at lambing time such twin lamb disease, prolapses, and joint ill. The next meeting discussed the benefits of measuring growth rates and some farmers have been recording lamb weights at 8 and 12 weeks to help gain a better understanding of their flock.

I came out of university with a lot of new ideas to help farmers improve their livestock management and performance, but I'm realising it's often more about looking for the small wins. For instance, lambs still left at the back end cost the most money, because they'll be fed concentrates and need more worming treatments. So if, having attended one of these meetings, a farmer makes one small change back on his farm which improves growth rates so lambs can get away sooner, then that's a result!

# About Lauren Porteus

I grew up not too far from Hexham, and wanted to be a farm vet from a young age. Many of my friends lived on farms, and I was able to get my first lambing season at the age of 14. From there my interest continued to develop.

I graduated from Nottingham Veterinary School in 2016 and after taking some time to go travelling, I started at Scott Mitchell Associates in the October. I was already aware of XLVets and the additional CPD available, and enjoyed attending the XLVets Graduate Training programme. It's a relatively small team at the practice, and I feel really supported.

I'm enjoying getting to know more of our farming clients and it was great to hear of the many successes at the Yorkshire Show, and the Royal Highland Show earlier this year.

When I'm not working, I play netball, go skiing, and enjoy cycling around Northumberland.







# FarmSkills workshops coming up

10 January 2018	Smallholders Healthy Flock Workshop	Capontree Veterinary Group
17 January 2018	Practical Lambing	Capontree Veterinary Group
18 January 2018	2 day Foot Trimming	Bishopton Veterinary Group
24 January 2018	Foot Trimming (1 day)	Lambert, Leonard & May
24 January 2018	Practical Lambing	Capontree Veterinary Group
1 February 2018	Practical Lambing	Capontree Veterinary Group
2 February 2018	Practical Lambing	Bishopton Veterinary Group
6 February 2018	Lameness and Foot Trimming	Armour Veterinary Group
16 February 2018	<b>Mobility Scoring for Cattle</b>	Bishopton Veterinary Group
20 February 2018	DIY AI	Bishopton Veterinary Group
23 February 2018	Practical Lambing	Bishopton Veterinary Group
27 February 2018	Lambing Skills	Scott Mitchell Associates
27 February 2018	DIY AI (4 day)	Capontree Veterinary Group
28 February 2018	Practical Calving	Armour Veterinary Group

11 January 2018	2 day Foot Trimming	Synergy Farm Health
17 January 2018	Practical Lambing	Hook Norton Veterinary Group
23 January 2018	2 day Foot Trimming	St Boniface Veterinary Clinic
6 February 2018	Practical Lambing	Synergy Farm Health
13 February 2018	Lamb Post Mortem	Synergy Farm Health
14 February 2018	Cattle Mobility Scoring	Synergy Farm Health
27 February 2018	Practical Lambing	Synergy Farm Health
13 March 2018	Lamb Post Mortem	Synergy Farm Health
20 March 2018	Mastering Medicines for commercial sheep flocks	Synergy Farm Health

Please note dates are subject to change

For more workshops and to book online visit us at www.farmskills.co.uk

