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Here's your March-April newsletter, hot off the press!

Spring is finally in the air with days getting longer and warmer. How is lambing and calving season going for you? Can we help in anyway?

In this issue, we take a look at how data collection and setting KPIs can really help your bottom line – especially during lambing season.

We've also covered bovine Digital Dermatitis, along with what to look out for, how to treat it and how we can help.

Don't forget to let us know what you think about the topics we have covered this time and if there is something you would like us to cover in upcoming newsletters, drop us a line at Ardene Vets.

*We hope you have a spring in your step! See you next time,
The team at Ardene Vets.*

In this issue:



The cost of bovine Digital Dermatitis

£3000 per 100 cows is the current estimated cost of BDD. How can you change that on your farm?



Data and KPIs

Can keeping simple records and setting some robust KPIs really help your farm be more successful?

The cost of Bovine Digital Dermatitis

Bovine Digital Dermatitis (BDD) is a highly infectious bacterial infection causing lameness. BDD was first reported in Italian dairy herds in 1974, and first identified in the UK in 1987. Now it is estimated to be present in the majority of UK dairy herds, with an in-herd prevalence of up to 40% of cows infected.

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The estimated cost per 100 cows in the UK is £3000, as well as the ongoing welfare implications of lameness and its knock-on effects, such as reduced feed intakes and poor fertility.

The organisms responsible for the condition are Treponemes, a highly mobile type of Spirochaete bacteria that are able to penetrate damaged areas on the soft, haired parts of the cow's foot and cause infection.

Sometimes, these Treponemes become enclosed in a cyst and remain dormant, acting as reservoirs of infection. Treponemes have also been isolated from toe ulcers and foul lesions, causing secondary infections that are more difficult to treat.

The first sign that a cow is infected is usually a change in gait, preferring to walk more on tip-toe on the affected foot. Investigation of these animals will often reveal a strawberry-like skin lesion sitting in between the claws on the cleft of the heel bulbs. Other areas of the foot can be affected, including the coronary band and interdigital skin. These acute, ulcerative lesions are very painful and can develop into 'hairy warts' in more chronic cases, with thread-like strands of thicker skin.

Management of BDD can be split into two main areas:

1. **Identifying and treating individual animals**
2. **Prevention and controlling spread**

Identifying and Treating

Speedy treatment of affected animals is essential. Not only to prevent welfare issues associated with lameness but, to stop an infected cow spreading the disease to other animals. Regular mobility scoring of cows will enable detection of low-grade lesions that can then be treated before they become a major problem.

It is easier to detect lesions on the feet when the feet are clean. Ideally this can be achieved by making sure cows are not standing in deep slurry or clagging bedding material. Dirty feet can be hosed off in the parlour and inspected with a torch. A mirror on a stick is also useful to slide under the feet and pick up any lesions further between the heels.

If treatment is necessary then this is best done out of the parlour with the foot up to enable full inspection.

To treat:

- Hose foot or use a brush with disinfectant
- Hygienically dry using disposable paper towel
- Spray lesion with antibiotic aerosol twice, leaving 30 seconds between to allow the spray to dry and stick
- Mark cow clearly for identification for repeated treatment
- Turn onto a clean, dry yard after treatment
- Repeat daily until resolved – at least 3 days

Treatment following this protocol is usually effective, but controls need to be put in place to prevent reinfection of the damaged skin. Bandaging isn't any more effective in treating these animals and can cause more problems where they are too tight, left on for too long or get wet and dirty after application.

Where more chronic 'hairy warts' are present it may be necessary for a vet to debride these under local anaesthetic, avoiding going into the sensitive, vascular tissue underneath before applying topical treatment.

Prevention and Control

Biosecurity

Because BDD is so infectious and different strains of Treponemes can be responsible on different farms, great care must be taken to avoid buying in potential carriers, as the disease can have an explosive spread in naïve herds. Running a closed herd is the safest option but, where animals must be brought in from elsewhere, it is important to ask about their herd history of BDD and quarantine new arrivals.

When foot trimming and treating infected cows, it is vital that equipment is disinfected between each animal and each foot! Ensure that cattle foot trimmers thoroughly disinfect their equipment before entering and beginning work.

Foot dips at entrances to animal areas, and keeping visitors to a minimum, will help to prevent any cross contamination between farms.

Slurry management

Slurry not only acts as a source of infection but also causes damage to the skin of the foot, allowing the bacteria an easy way in. Good slurry management by regular, thorough scraping of any areas accessed by cows, repairing any areas where slurry might pool, and installing drains or channels where necessary, will help to keep cows' feet clean and dry.

Gateways and farm tracks should be maintained to prevent muddy areas where cows routinely gather.

Footbathing

Clean feet are at less risk of infection so, regular washing in the parlour will prevent build-up of caked-on debris on the feet and around the dew claws.

Once the feet are clean then the most effective prevention is to run all animals through a footbath on a regular basis. This includes heifers and dry cows, where these groups are shown to be at risk of infection.

A number of footbath solutions are available, usually copper or zinc sulphate based, or formalin. Each solution can be used on a 'treatment' or 'routine disinfection' basis, using different strengths and frequency of use. Consideration must also be given to the particular health and safety risks of the use, handling and disposal of these products. Give us a call to discuss the best protocol for your farm.

Antibiotics should not be used off-licence in footbaths due to concerns around development of resistance and milk residues. An effective footbath will allow up to 100 cow passes per 100 litres of solution and the bath must be long enough to allow each foot to enter the solution twice per pass. A double width bath can be used where cow flow is greater.

ahdb.org.uk contains a number of resources covering digital dermatitis and lameness in general including mobility scoring sheets, lesion identification sheets and links to the Healthy Feet program, which is a lameness investigation scheme led by trained Mobility Mentors to identify the risks of, and suggest solutions to lameness issues on your farm.

We are happy to discuss any concerns you have around BDD on your farm and can help you decide on appropriate protocols for treatment and control.

How do data and KPIs help your bottom line?



Key Performance Indicators (KPIs) are a measurable value that indicates whether a business is achieving its key goals. KPIs are metrics, measures, or data points that can be recorded to help monitoring a business performance.

The most important KPI for any business relates to financial performance, specifically the cost of production of its output. An example of this in the lamb sector would be pence per kg.

The four core KPIs that monitor overall business performance are:

- **Financial performance** – Financial KPIs can be a measure of how much it costs to produce each kg of lamb you produce on farm
- **Productivity** – Fertility includes measures such as lambs reared per ewe to ram. The measures provide a straightforward indicator of the business viability as, without fertility, there would be no viable business
- **Yield** – The key to measuring yield KPIs is weighing stock
- **Survivability** – Health and welfare KPIs can be a measure of how much medicine is required to produce each kg of lamb, or the percentage of mortality. Medicine usage is a good indicator of the effectiveness of health and welfare across your enterprise. A high use tends to indicate issues with diseases and welfare

These KPIs monitor the effective pillars of an efficient business. A decrease in financial performance is often accompanied by a drop in one of the other pillars.

By identifying the worst performing area and focusing labour in there, it can be a more efficient use of staff time. KPIs allow a business to focus its attention on what parameters matter most for success and provide an analytical basis for decision making and improvement.

A robust KPI provides a direct indication of business efficiency, sustainability and profitability - the elements critical for success.

Success in any of these areas is affected by underlying factors including fertility, successful AI, measuring weights, good husbandry, efficiency of growing and using forages. Simple suggestions for improving your KPIs:

- Practising rotational grazing can produce so much more lamb from the same area with a positive effect on their profitability and the environment
- Reduced stocking rates and reliance on purchased inputs
- Improve soil structure and increase wildlife
- Consider every additional cost and its worth. For example, machinery. Maybe hiring instead of purchasing would be more cost effective
- Technology tools to analyse data

Prevention is better, and less costly, than cure. Proper health and biosecurity plans are essential, including appropriate vaccine and antibiotic use, correct dosage and timing – always involve your vet. We would be happy to discuss health plans and biosecurity with you.

By understanding your cost of production, resources and markets, you can identify the different options and the best way forward for your farm business.

Data Collection

In order for KPIs to be useful for your business, you need to collect the right data and it needs to be accurate. The best way to achieve this is to pick some measures that you think will be most useful to you, rather than trying to gather too much information unsuccessfully. This list from the AHDB provides a good starting point ahdb.org.uk/knowledge-library/sheep-records-for-better-returns.

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One straightforward and repeatable measure is body condition score (BCS). The table below shows findings from the 'Sheep KPI Validation Project' run by AHDB. They show how BCS values, taken at different stages of the production cycle, can act as useful KPIs for predicting performance, such as lamb weight.

Time of BCS	Associated with...
Mating (and change in BCS from weaning to mating)	Litter size Lamb weight
Scanning	Litter size at lambing and weaning
Lambing	8 week lamb weights Lamb weaning weights
Change in BCS from 8 weeks to weaning	Lamb weaning weights

Lambing is a busy time with many jobs to do but, it is also a vital time to be recording data to calculate some important KPIs.

You may decide to use an EID reader, whiteboard, notepad, mobile phone or even recorded voice messages to do this – the key is to keep it simple and remain consistent.

Ensure that all staff know what data needs to be recorded to avoid any gaps. Individually labelling pens with basic information can help to keep everybody on the same page if you have a lot of different staff.



TOP TIP: Noting down lamb losses per age group can help you to identify where to focus your management interventions. One handy tip, to save time, is to label your dead stock bags per age group and periodically count the number of lambs in each bag.

What do to with your data

Once you have your data, you can now process it to calculate your KPIs. There are a number of resources out there that will do this for you, such as the following from AHDB ahdb.org.uk/kpi-express-report and ahdb.org.uk/beef-lamb-kpi-calculators.

Resources available from AHDB

Sheep KPI Calculator

Sheep Records for Better Returns

Give us a ring and we will be more than happy to arrange a time to look over your KPIs with you and discuss how they can be used to improve your farm performance.

