

FARM ANIMAL NEWSLETTER - JANUARY 2021

SHEEP SCAB PREVENTION AND CONTROL

With many farmers buying in tups and replacement ewes or routinely treating the flock for scab (prevention) by o/p dip or injection (**Cydectin**, **Dectomax**, **Ivomec**) in the Autumn, it is worth considering whether the best control measures are being used.

CAUSES OF SHEEP SCAB

- Sheep scab is caused by the *Psoroptes Ovis* mite
- The mite numbers on a sheep can double every 6 days
- The mite can survive for 17 days off the host which is important to remember when considering how to tackle the parasite.

SHEEP SCAB DIAGNOSIS

- Easily confused with lice
- Sheep can be infected with scab and lice at the same time
- **Veterinary examination and skin scrapes are recommended to confirm diagnosis in order to treat accordingly.**

PREVENTION

- The risks of entry of sheep scab can be significantly reduced through good biosecurity
- Ensure effective quarantine and treatment for incoming animals
- Quarantined animals should be separated from the main flock until at least 2 weeks after quarantine scab treatments are given.

SHEEP SCAB TREATMENT OPTIONS

ORGANOPHOSPHATE DIPS

Single plunge dip treatment will kill off all scab mites within 2 days (treating lice as well) and its persistency prevents re-infection if sheep are returned to dirty pasture. Using an o/p dip through a sheep shower is **not** effective at controlling scab.

INJECTABLES

- **Ivermectin (e.g. Ivomec, Noromectin)**
 - 2 injections required, 7 days apart.
- **Doramectin (Dectomax)**
 - Single injection of 1ml/33kg into the muscle will treat scab. To avoid re-infection turn onto clean pasture (which has not had sheep on for at least 19 days) and avoid contact with untreated or infected and treated sheep for at least 14 days.
- **Moxidectin 1% (Cydectin 1%)**
 - Prevention - 1 injection protects against infestation for 28 days
 - Treatment - 2 injections 10 days apart
 - **Not to be used in flocks vaccinating against Footrot.**
- **Moxidectin 2% (Cydectin 2% LA)**
 - Single injection treats scab and protects against re-infection for 60 days, therefore treated animals can be moved back onto dirty pasture.
 - **Can** be used in flocks vaccinating against Footrot.



For a discussion on scab prevention/treatment options please contact the surgery.

DIGITAL DERMATITIS IN CATTLE

Digital dermatitis is a highly infectious cause of lameness in cattle and since it was first identified in 1974 is now found in most dairy herds.

CAUSE OF DIGITAL DERMATITIS

Digital dermatitis (DD) is caused by a group of bacteria called *Treponemes* which gain entry through hair follicles and damaged skin. Treponemes can survive in slurry and the environment for a variable period of time and carrier animals which don't necessarily show any sign of lameness are also a source of infection.

Lesions most commonly occur on the skin between the heels on the rear hooves or on the skin of the interdigital cleft between the 2 claws. Treponemes are also isolated from a variety of other skin lesions location including:

- Hock sores
- Toe necrosis lesions
- Solar ulcers
- Chronic white line lesions (wall ulcers)
- Foul in the foot infections
- Interdigital growths
- Skin infections in the skin folds of the udder
- Ischaemic teat necrosis



INDIVIDUAL ANIMAL TOPICAL TREATMENT

All digital dermatitis lesions should be treated in some way. The priority is to clean, dry and remove any dead skin from the lesions followed by the application of an effective antibacterial product such as Oxytetracycline (e.g. **Terramycin** or **Engemycin**) sprays.

There are several non-antibiotic products available although only one - **Intra hoof – fit gel** (Intracare) containing chelated copper/zinc is currently licensed for DD treatment in the UK. Salicylic acid has also become a popular topical treatment as the treponemes do not appear to survive at a PH of lower than 5 so the acidic nature of salicylic acid is likely to help clear up the lesions. Injectable antibiotics are not required for treating uncomplicated DD lesions although if there is infection and swelling tracking up the leg from lesions antibiotic and non-steroidal anti inflammatory injections may be recommended.

BANDAGES

Opinions are divided on whether to bandage DD lesions. Bandages can help to keep lesions clean and allow treatment products e.g. antibiotic sprays, copper and zinc sulphate gels to stay in place long enough to be effective, but these should be removed after 12-24 hours. Treatments may need to be repeated for several days.

HYGIENE PRACTICES WHEN TREATING LAME COWS

DD organisms can be spread from cow to cow by hoof knives, so disinfection of knives and gloved hands between animals is best practice. Most disinfectants appear to be effective but 1% FAM 30, 2% **Virkon** or 2% Hypochlorite are particularly effective.

WHY DO CURRENT CONTROL APPROACHES OFTEN FAIL?

It takes an average of 4 months for an active DD lesion to develop. If individual cows with DD are just treated when lesions are very obvious and the cow is lame it is likely that the environment will be continuously fed with DD thus constantly driving infection in the herd. Foot bathing is commonly seen as the solution during an outbreak but the role of a footbath should be to prevent rather than to treat infection.

Once a cow has had a DD lesion it is unlikely that she will ever totally cure, however with footbath treatments the lesion can become dormant. Regular foot bathing prevents flare ups in cows already carrying the infection. The off-label use of antibiotic footbaths is no longer justified for regular foot bathing.

RECOMMENDED FOOTBATH SOLUTIONS

As a guide footbath solutions should be replenished after 1 cow walkthrough per litre i.e. 100 litre footbath suitable for 100 cows to walk through.

Formalin (37% Formaldehyde)	<ul style="list-style-type: none">• 2-2.5% Robotic System• 3-4% Daily• 4-5% 2-3 times weekly
Peracetic acid	<ul style="list-style-type: none">• 1-5% solution
Copper Sulphate	<ul style="list-style-type: none">• 2-10%• Or 1-2% if acidified to PH 3.5
Zinc Sulphate	<ul style="list-style-type: none">• 10% (Concentration can be reduced if acidified)

Footbaths should be long enough (3.7 – 4 metres long) to allow each foot to be placed at least twice in the bath as they walk through and the solution should be at least 10 cm deep so that the back of the heels are soaked.

It is important to include dry cows and youngstock in foot bathing protocols. In general, foot bathing 2-3 times per week with a 4-5% formalin solution seems to maintain an acceptable level of infection control. This protocol should then progress towards the lowest foot bathing frequency using the lowest product concentration that keeps the DD status of the herd under control. Contact the surgery for more information about digital dermatitis control or foot bath design.

CRYPTOSPORIDIOSIS IN CALVES

Although we talked about Cryptosporidiosis in our October newsletter the number of outbreaks in calves that we have encountered recently (including diagnosis in our practice lab) has prompted a follow up article.

LIFE CYCLE

Cryptosporidium Parvum is the most frequently diagnosed cause of calf scours in calves 1—3 weeks of age. Cryptosporidia oocysts (eggs) can be passed in the faeces of immune and symptomless adult cows and older calves. These oocysts have a tough outer shell which makes them resilient to extremes of temperature and they can survive for well over a year in the environment. Calves are not born carrying the infection but ingest oocysts from the environment after birth from faecal material e.g. off the cows teats, bedding etc. Inside the calf the oocysts hatch, invade the gut wall and produce millions of eggs which are passed in the faeces. The entire life cycle takes 2-7 days and ingestion of as few as 10 oocysts can result in disease in susceptible calves and the passing of literally millions of oocysts to further infect the environment.

Symptoms are of a yellowish scour, dehydration and in severe cases abdominal discomfort due to damage to the gut wall. Whether the calf develops symptoms is down to how great the environmental challenge is, how much protection the calf has received through colostrum, whether other diseases e.g. Rotavirus are present and how robust the calf's immune system is. If the calf is cold, is being under fed or has signs of respiratory disease it will be more susceptible to developing symptoms. On dairy farms factors for increasing the environmental challenge for a young calf include leaving the calf with its mother for too long, mixing different ages of calves, high stocking densities and insufficient clean bedding.

TREATMENT

The main supportive treatment is to keep calves hydrated by stomach tubing if necessary. If a calf is scouring it will be losing more liquids than usual so is likely to need extra fluids, it is beneficial to feed the calf 3-4 times daily rather than the standard twice daily. Electrolytes are good e.g. ([Life aid extra](#), [Sacrolyte](#)) but a calf should not be without milk for more than 24 hours. Other electrolytes such as [Rehydion gel](#) are licensed to be added to whole milk/ milk powder. Calves should be kept warm (jackets are essential in winter) with plenty of clean bedding allowing the calf to nest. Antibiotics do not treat Cryptosporidia but anti-protozoal drugs such as [Halocur](#), [Kriptazen](#), [Parofo Crypto](#) are licensed to be administered daily to stop the cryptosporidia from multiplying inside the calf and allow time for the calf to develop immunity and throw the infection off.

There are no vaccines available to protect against Cryptosporidia although vaccinating cows with [Rotavec](#) or [Bovigen](#) followed up by good colostrum management will provide protection against other infectious causes of scours.



DECEMBER'S LABORATORY UPDATE

A month of skin scrapes and scouring calves!

We've had positive tests for both lice and sheep scab mites this month from some very itchy sheep. There have been some cases of post scab infection hypersensitivity. Following successful treatment, sheep remain itchy due to the irritation and reaction in the skin to the mite's faeces. Choosing to dip is a more effective treatment as the action also helps to clean and wash away mite debris.

We have seen quite a few positive tests for crypto in our scouring calves. See the article above for information, treatments and prevention.

Also, this month we investigated 6 heifers in a beef herd that had not held despite being with the bull for 3 months. Investigations revealed all the heifers were positive for Leptospirosis antibodies. Leptospirosis can cause infertility, abortion and milk drop in dairy cows. **Free lab testing is available through MSD for both beef and dairy herds and herd vaccination can help to control the disease.**



SCANNING TIME THOUGHTS

I suspect many of our flocks will have a high scanning % this year, the ewes were in good body condition pre-tupping and the grazing conditions for all but the early lambers was ideal for flushing. The challenge will be to prevent the ewes with multiple lambs losing too much condition and the roll on effects of small birth weight lambs, poor colostrum quality, poor milking ability, ewe metabolic disease and prolapses. **Feeding the ewe correctly in late pregnancy is vital.** Here are a few points that will go a long way to minimising problems;

- Analyse your silage so you can spec the amount of concentrates accurately. **Over or under feeding causes an array of problems. Most of the feed firms will do a forage analysis and a tailored feeding plan for you free of charge.**
- Ensure there is enough feed space in both housed and outside flocks. **Ad lib forage allow 15cms feed space per ewe. Concentrate feeding needs 45cms per ewe (50cms for horned ewes).** If feed space is limited you get poor intakes from some ewes and any pushing and shoving greatly increases the risk of prolapses and abortions.
- Never feed more than 0.5kg concentrated at one feed. **The rumen pH will drop with a larger feed, the resulting acidosis causes reduced forage intake. Combined with a lack of exercise the risk of twin lamb disease and prolapses is hugely increased.** If there is insufficient feed space then floor feeding is recommended. The pellet size should be at least 11 mm for satisfactory floor feeding.

GELD SHEEP

We have recommended for many years that geld ewes are blood sampled at scanning to identify if Toxoplasma infection is present and therefore a cause of the problem through reabsorption of the foetus. The lab fees for this sampling is covered by the drug firms so it's a no brainer to test – as long as the ewes have not been vaccinated. There is another infection that we are becoming aware of that is the cause of geld rates of up to 10% - **Border Disease**. This is a viral infection very closely related to BVD in cattle. Recent research has shown that 30-37% of flocks have been infected. It can cause abortion storms and huge geld rates as BVD can in cattle but more usually it is a much slower progressing disease with increased geld rates and weary newborn lambs. The infection is detectable by blood sampling, we would recommend sampling 6 geld ewes. The lab fees for this would be approx £60.



RESPONSIBLE USE OF MEDICINES COURSE

We are proud to announce that we have completed the task of uploading the responsible use of medicines course online ready to be viewed!

Clients who have been in touch will be contacted shortly.

The cost of the course in £30 +VAT

For more information please contact the surgery.



PRODUCT NEWS

MILKING COW TUBES

We currently have stocks of **Ubropen, Ubrolexin, Mastiplan and Orbenin LA** tubes and are not aware of an imminent return for other tubes.

ANTIBIOTIC DRY COW TUBES

Bovaclox DC and **Bovaclox Extra DC** are currently unavailable and **Ubrostar Red** is in short supply. We currently have no supply problems with **Cepravin DC**.

We have no supply problems with non-antibiotic teat sealants.

VACCINES

Certain vaccines e.g. **Risposal 4** are unavailable and we have had temporary issues with **Bovalto 4**.

Leptavoid H is only available in 25 dose bottles (no 10 dose bottles).

We currently have good supplies of IBR vaccine, **Bovela** BVD vaccine, **Rotavec** and **Scabivax** but **in the current climate I would recommend that if you know what your requirements are going to be for the next few months to order well in advance and if it's a 2 dose course of vaccine that you want to order the 2nd dose with the first.**

JANUARY
2021



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