

Sheep & Beef Talk

September 2017



Footrot Outbreaks:

This Season

It has been a bad year for footrot, with it being a significant challenge during spring and then autumn. For now, we need to focus on going into set stocking in a position that will minimise the size of the footrot outbreak that is likely to happen sometime between set stocking and weaning.

The key steps before set stocking:

1. Do a quick inspection to find as many infected sheep as possible. Don't do lots of paring. The inspection must be a quick process.
2. Keep the "infected" mob isolated from now until weaning. This may mean some re-planning for set stocking.



Mix up all the infected ewes whether they are two tooth, mixed age, single or multiple so there is only one high risk mob.

3. Recognise that the "clean" mob will not be clean. Therefore, you could continue to footbath and should only need 2-5 minutes in zinc sulphate.
4. Treat infected sheep with the aim to reduce the number of infected feet in this mob.
 - Antibiotics are the best option, with a potentially rapid effect. Try to keep their feet dry for 12-24 hours after treatment. This will be difficult but possibly put ewes onto a dry block with little cover and feed them supplements. If feet stay dry expect cure rates of 70% plus. If feet get wet after treatment, cure rates will be much lower. Most of the ewes will improve and stop limping for a while, but they are still infected and will get worse as the season progresses.
 - Footbathing is the second best option and sheep should be getting 15-30 minutes in zinc sulphate. This takes time and is unlikely to make much difference between now and set stocking.

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5. If the current footrot prevalence is high (>15-20% of the mob) then we should expect a significant outbreak in the spring – up to 60-70% of ewes if the season is suitable. Hence, consider vaccination.
 - With the bigger challenge this season there is a shortage of vaccine across the country so it may be difficult to get vaccine at short notice.
 - Give the ewes a sensitiser ASAP and do it very carefully. There is a risk with vaccinating ewes close to lambing but the consequences of vaccinating vs. not vaccinating need to be weighed up.
 - After the sensitiser, has been given the ewes are ready for the booster vaccination - most likely at tailing. The booster will provide immunity within a few days.
 - If they are not already sensitised pre-lamb then there will be 4 weeks between the two shots and an outbreak may have occurred during that time.

Next Season

The recent footrot outbreaks being experienced by some clients, especially those with fine wool sheep started last spring and has progressively continued to get worse throughout autumn and this wet winter. This highlights the need to have a longer term control programme in place which must start as soon as possible after weaning.

Footrot is caused by the bacteria *Dichelobacter nodosus*, and outbreaks usually occur with warm, moist weather when grass is lush. There is no silver bullet for treating footrot however, by putting annual prevention strategies in place the number of lame sheep can be minimised.



The Disease:

- Under ideal conditions *D. nodosus* (the bacteria that causes footrot) survives outside the hoof for 7-10 days.
- Infected feet are the source of infection; therefore a high stocking rate will increase the spread between sheep.
- Sheep with dry, healthy feet will **not** get footrot.
- “Scald” – or ovine interdigital dermatitis, is where no underrunning of the hoof is present.
- Seasonal variation in severity of footrot is common.
- Fine wool breeds are more susceptible to footrot.

Management:

The objective should be to go into the next challenge period with the clean mob clean and isolated from the risk mobs which may be either the infected or cured mob.

- Understand the disease.
- Make a plan and follow it **every** year – we can help you put a plan together.
- Good facilities are necessary.

The management programme should only start when the disease is not actively spreading and when the prevalence is less than 20%. If more than 20% of the mob have footrot then treat the whole mob as infected by routinely footbathing.

First Inspection

- Carefully inspect feet and identify the clean sheep.
- Sheep not diagnosed as clean must be isolated during the inspection process.
- Clean sheep should be footbathed and put on pasture that has not been grazed by any sheep for at least two weeks.

Monitor the clean mob

- This mob is unlikely to be 100% clean, so regular monitoring for lame sheep is important.

Second inspection

- Reinspect the clean mob immediately after any sheep with footrot are found.
- If no lame sheep are found after four weeks, reinspect the mob anyway. Regular monitoring is key in footrot management.

As long as the infected mob is isolated, treatment is a much lower priority than “keeping the clean mob clean”.

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Treatment:

1. Culling

Cull as many infected sheep as possible before starting treatment.

2. Footbathing

Pare back the really bad feet only to give better contact between the antiseptic and the infection. Over paring too much of the hoof has actually been shown to decrease cure rates.

Formalin

- Works as a surface agent only - hardens the hoof. Contact two minutes maximum.
- Good for preventing and treating scald, and treating early footrot.
- Not for severe footrot.
- Ideally keep feet dry for one hour after bathing.

Zinc Sulphate

- Penetrates deep into the hoof – better than formalin for severe footrot.
- Bath for 30 minutes, at seven days apart for three treatments.

3. Antibiotics

Using antibiotics results in less labour and rapid cure rates if administered properly. After treating with antibiotics, put the treated sheep onto dry ground for 24 hours for the best results.

- Options include Alamycin which lasts for 5 days and Tilmovet (Tilmicosin) however, this must be administered by a vet. Lincospectin is also an option but is not to be used in heavily pregnant ewes. If using Lincospectin, bare in mind this is off-label

use, therefore, there is a 91 day meat withhold.

4. Inspection of treated mob

4 weeks after final treatment

- Diagnosis of a cured foot. Needs very careful paring to end up with a normal looking hoof – shiny white with no defects.
- Cull non-responders.
- Cured mob is now the high risk mob and must be isolated until the next whole flock inspection.

5. Footvax (Footrot vaccine)

- Footrot vaccine should be used prior to the risk period, to reduce the size of an outbreak.
- Never 100% effective but will reduce the size of an outbreak.
- Provides 5 weeks (merino) to 20 weeks (coarse breeds) protection.
- This vaccine is not to be used within 4 weeks of mating or lambing.
- Initially, a sensitiser and booster vaccination should be given, 6 weeks to 12 months apart. After that, an annual booster before the risk period should be given.

Footrot is a complex disease involving the sheep, the environment and a bacteria. There is no silver bullet for treating footrot. If you have a footrot issue at the moment, come and talk to your local VetEnt vet about what you can do before lambing. Once the ewes are set stocked we can then work together to create or review your footrot control programme.

