Lameness in Sheep

Practical Guide

Scotland is working towards the target to reach net zero carbon emissions by 2045. For the sheep industry, this gives an opportunity to evaluate systems and practices, while looking to enhance flock efficiency and productivity, which will in turn reduce greenhouse gas emissions.

Maximising the health, genetics, nutrition and management of flocks allows for producers to maximise productivity and in turn have a positive effect on a carbon footprint of a sheep system and farm.

Maximising health can include many attributes e.g. lameness, internal and external parasites, iceberg diseases, etc.

This practical guide takes a closer look at lameness within the sheep flock

Why is Lameness a Problem?

Lameness in sheep is a welfare issue, which negatively affects the productivity of a flock, and can be costly in terms of treatment.

Productivity losses from lameness in a flock, can include,

- Low body condition score in breeding stock
- Reduced longevity of breeding stock
- Increased replacement rate
- Reduced fertility
- Reduced growth rate of lambs
- Increased medicine use
- Increased cost of production

It is estimated the national flock has 5-10% of lame sheep at any one time. With proactive management this could be reduced to the target of 2% e.g. 2 sheep in 100.

While sheep are lame, they struggle to travel and graze, which has an affect on their own body weight, condition, fertility, milk yield, and impacts the growth rate of their young.

For every lame foot a suckling lamb has, there is potential for 50 grams of liveweight to be lost per day. Meaning that a lamb with two sore feet, could loose 100 grams of liveweight per day. It is estimated that by adopting best practice for control of footrot, would leave a benefit of £4.65/ewe/year.

Lameness can be a costly problem for flocks, with proactive management, productivity can be raised significantly.

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Scottish Government
Riaghaltas na h-Alba
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Common Causes of Lameness

There are three common causes of lameness in sheep, which are all contagious. These include,

- Interdigital Dermatitis, commonly known as scald
- Footrot
- Contagious Ovine Digital Dermatitis - CODD

Scald and footrot are caused by a pathogen called Dichelobacter nodosus, while CODD is caused by Treponeme's. Co-infection of feet with both footrot and CODD is common when both are present on farms.

This bacteria is spread from ground contact of an infected hoof. Research at Warwick University has shown this bacteria can survive on pasture for up to 14 days. This is especially the case in wet and muddy conditions, where it can thrive and spread through foot contact. To reduce the impact avoid muddy gateways, dirty handling pens, dirty creep areas, etc. To mitigate this hard core could be used in these areas.

The cause of the lameness, will dictate how it should be appropriately treated and managed. If the cause is unknown, then check with your vet. Cases should be identified and treated quickly to limit the spread of infection. Producers should be wary of trimming feet, as this will increase the spread of lameness. Due to the bacteria being able to survive on hands, gloves and trimming equipment.

Prevention of Lameness

An industry five point plan was created to reduce disease challenge, build resistance and establish immunity on the national flocks, this includes five main action points, as follows.

1. Cull - repeatedly infected or lame animals
2. Quarantine - incoming animals and lame animals
3. Treat - clinical cases promptly
4. Avoid - spread at handlings, farm hygiene, gateways, etc
5. Vaccinate

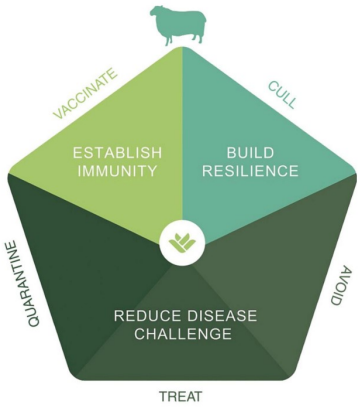

Image credit: AHDB The five point plan for tackling lamendss in sheep.

Reducing Lameness on Farm

A tailored approach to prevention and control for each flock should be implemented. By implementing the five point plan, flock levels of lameness will decrease. Using the first point "cull" is a very important step, and over time the genetic resistance within the flock will grow, which will drive productivity.

When choosing flock replacements, have lameness as part of your check list. With the use of data recording, record the mothers with lameness history, and don't select breeding stock from these mothers. In doing this the replacements will have a better feet structure, and better resistance to lameness.

Always ensure when handling sheep, that the handling area is clean, often flocks with a high attention to detail on hygiene and handling facilities are those with low lameness problems.

Reducing lameness to a target of <2% of the flock can vastly increase productivity in a flock, while reducing costs of treatment and losses associated with a high replacement rate.

Farming for a Better Climate (FFBC) is funded by Scottish Government and delivered by SAC Consulting. Keep up to date with the project via our webpages and newsletter at www.farmingforabetterclimate.org or on Facebook and Twitter @SACfarm4climate