

Locomotion Disorders of Cattle

The best definition of lameness in cattle is any abnormality that changes how a cow walks and is usually due to a foot problem, but can be hock damage, sores and cuts as well. It is usually due to either disease, environmental or management factors, and because of the welfare implications of lame cows, it is included in the various assurance schemes.

There is a wide variation in lameness on farms and this suggests that locomotion can be improved on a farm through changes in management and in the environment. It is a costly disease due to loss of yield, increased culling, and poor reproductive performance, and can be up to £200/case.

The causes of lameness are usually multi-factorial, but can be grouped into:

- a. Walking Surface. This is poor quality floors in the sheds, poor cow tracks and standing the cows for too long on concrete.
- b. Inadequate or inappropriate foot trimming
- c. Disease. This is both diseases of the foot such as Digital Dermatitis, but also nutritional disease such as SARA (Sub-Acute Ruminant Acidosis).

The most common causes of lameness are Sole Ulcers, White Line Disease and Digital Dermatitis.

Sole Ulcer

This is a non-infectious lameness that is seen in the sole horn, directly under the pedal bone. Due to the slow growth of the horn, there is usually a 2-3 month delay after the cause of the sole ulcer, before the lesion becomes apparent on the sole. It is usually the result of SARA (sub-acute ruminant acidosis) that softens the horn, and then excessive standing on hard floors results in the horn becoming damaged under the pedal bone.

Prevention is by reducing SARA through appropriate feeding, and minimising standing times, or softening these waiting areas with matting.

Treatment is by trimming and blocking the affected claw to remove the weight from the ulcer.

White Line Disease

This is where the sole separates from the wall of the hoof and material is then able to force its way into this gap every time the foot is put down. It is caused by rapid changes in direction, particularly when on a hard surface. Sharp turns in handling facilities or on the exit of the parlour should be avoided if possible, or softened with rubber matting if not, to reduce the sheering forces applied to the white line.

Treatment is by corrective foot trimming to open up the abscess and a block can often be beneficial to reduce the pressure on the affected claw.

Digital Dermatitis

This is a painful infectious condition that is very contagious. It causes small lesions on the heel and between the claws. It is spread in slurry, and so effective slurry management will control, but not eradicate the disease. Regular foot bathing to clean and disinfect the foot will control the spread, but it is very difficult to completely eradicate the disease once it has entered the herd.

Conclusion

It is important to identify the main causes of lameness on your farm. Good record keeping of cases will allow the farm to put in place prevention measures that focus on the most common causes for the farm, and will give the best return on investment.

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