

The practicalities of successfully controlling lameness in cattle

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A relatively warm and dry autumn has allowed most farmers to push back housing. The benefit of this has been to delay the onset of the increase in lameness always associated with housing, especially infectious lameness. There are three main conditions which currently cause lameness in UK herds. These are digital dermatitis, white line disease and solar ulceration.

Digital dermatitis was first identified in the UK in 1987 and has spread rapidly ever since to become a chronic issue which affects the majority of herds. It is a very painful condition for the cow which shows as hairy warts interdigitally, between the bulbs at the back of the feet and on top of the coronary band at the front of the feet.

The bacteria which cause this are typically found around water troughs and anywhere in yards where it is damp or there is standing water.

They are anaerobic and quite robust, able to withstand frost; so in order to minimise the chances of infection spreading yards and cubicles should be regularly scraped to keep them as dry as possible.

Common causal factor

Solar ulceration, which is the most painful of these three conditions and white line disease have a common causal factor. Both of these conditions can start to develop when cattle 'slacken off' for calving.

The hormones released at calving cause ligaments to become more flexible and looser which means that bones and muscles are not kept as rigidly in place. This, in turn, can result in the pedal bone in the foot dropping.

Solar ulceration is the result of the pedal bones dropping and causing pressure typically on the outside claws of the back feet. It will usually become noticeable 2-3 months post calving. Typically blood will be seen in the horn of these outside back claws but in severe cases it can halt



horn growth completely in the affected area.

Once a cow has been affected by solar ulceration it is highly likely that she can develop the condition again. If the pedal bone drops onto the 'white line' or junction between the hoof wall and sole, then the damage resulting from this extra pressure weakens the junction, which allows stones to penetrate and then infection generally follows.

It is quite common for pus to form in the sole as a result of infections in this area which can then be seen to push out at the coronary band at the top of the hoof. Incidence of these two conditions can be increased through long periods on hard standing and hard, stoney tracks.

These common types of lameness can be very costly both from a welfare point of view and as cattle are similar to us, in that when in pain they tend to lose their appetite, this impacts on production. It has also been shown to increase calving intervals and the number of inseminations needed.

Steps to minimise lameness

There are several steps which can be taken to minimise these three types of lameness occurring. Firstly, prioritising cow comfort when housed, as ideally when cattle are not either being milked or eating they should be lying down.

Minimising standing time on hard surfaces will significantly help as will

good bedding – sand and straw and ensuring that there is rubber matting placed strategically at various turning points such as the parlour exit, feed areas and collecting yards.

Regular foot trimming will also help prevent irregular horn erosion which can increase susceptibility and also lameness severity.

Regular footbathing

As far as controlling infectious causes of lameness such as digital dermatitis, a regular footbathing regime is key for both treatment and prevention but the latter is always better! Whatever product is used as the footbath of choice, always ensure that the cows' feet are as clean as possible before walking through the active product as this will increase its effectiveness and decrease expensive pieces of muck sitting in your footbath.

Cattle can either have their feet washed off in the parlour or be walked through a footbath of water or water with straw, which will help ensure that feet are as clean as possible prior to footbathing, maximising the effect of the product chosen.

When footbathing for digital dermatitis, the key is to choose a product which will have antibacterial action against the causal bacteria and if possible also help to strengthen hoof horn at the same time.

Conventional footbathing treatments up until now have commonly included formalin, which tends to

work by hardening the hoof but used too frequently can cause horn to crack but is also carcinogenic and not too pleasant to handle; copper sulphate which will work as an antibacterial against the cause of digital dermatitis and zinc sulphate which is mainly used to strengthen horn.

Ideally products which combine antibacterial copper sulphate with horn strengthening zinc sulphate will give a dual action and the longer which you can prolong the contact time of these actives the better the results will be.

Kling-on Blue, from Forum Animal Health, is one such specifically formulated footbath because after walking the cows through the prepared product if they are then allowed to stand for at least 10 minutes in dry conditions, it will dry on the hoof which allows a longer contact time for both the copper and the zinc to penetrate infection sites over the following days.

Once you have settled on a footbathing regime the key is to stick to it as well as make all the management changes you can to decrease standing time for cattle on hard surfaces. This will result in less lameness this winter from the three main causes most herds suffer from! ■

