How to keep on top of digital dermatitis in cows this winter

Dairy margins are anticipated to be under pressure this winter, so it will be important to help cows perform to their potential, producing efficiently and getting back in calf quickly. Keeping cows sound should be a high priority. British Dairying reports.

Lameness is a constant drain on performance and margins, but its impact can be reduced by focusing on its causes and implementing appropriate corrective actions.

"AHDB calculates the average cost of a lameness incidence to be around £180, due to a combination of treatment costs, reduced yields, and a shortened productive life," comments Adrian Allen from Neogen. "The problem is widespread and requires a herd-wide approach to reduce both incidence and cost."

The starting point is to monitor lameness closely, implementing a programme of routine mobility scoring to understand the extent of the problem, advises Adrian.

Identify trends

Mobility scoring is often undertaken solely to meet the requirements of milk processor schemes, but it gives a good picture of herd foot health and can help identify problems quickly.

"Regular scoring gives a picture of trends in foot health and can show if problems are increasing. It can reveal if problems are influenced by factors like stage of lactation or grouping, which can help with corrective action planning.

"New automated mobility scoring systems are helping take the



Start with routine mobility scoring to understand the extent of the problem

spadework out of recording cows and analysing the results, increasing frequency of data collection and improving early warning."

When cattle are housed, it will be particularly important to take actions to reduce the incidence of digital dermatitis (DD), one of the three major causes of lameness, alongside white line disease and solar ulcers, says Adrian.

DD is an infectious condition of the foot caused by bacteria. Three key elements are required for infections to develop. These are the presence of bacteria, poor hygiene that leads to the transfer of bacteria from the environment to the hoof, and compromised skin, as bacteria will not cross skin with good integrity.

"With good management and focus on hygiene, it is possible to reduce the risk and consequences of DD," he notes. "Reducing exposure to manure and water, which can weaken the hoof, will help reduce the risk.

"Frequent manure removal from alleyways by scraping or flushing, ideally a minimum of three times per day, and paying particular attention to high traffic areas, will help keep feet clean.

"Ensuring cubicles are well-bedded and the correct size will encourage cows to lie down, keeping feet cleaner and drier."

Using a proven footbathing solution is a key component of any DD control programme, and while it is not a way to treat existing lesions, it can play a role in reducing new infection rates, reducing the risk and spread of bacteria.

"An effective solution will ensure good hoof contact with a powerful disinfectant that's proven to be effective against the major bacterial causes of DD, while also promoting better hoof condition," says Adrian.

"Reducing exposure to manure and water will reduce the risk."

Footbath solutions are commonly based on formaldehyde, copper, glutaraldehyde, and quaternary ammonium compounds. But Hoofshield Advance is based on new disinfectant technology, proving a different approach to hoof disinfection.

"It contains a unique combination of disinfectant, surfactants, and conditioners to improve general hoof





The blue dye indicates that cows have been through the bath

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quality," says Adrian. The disinfectant has been independently evaluated according to the European Standard and is proven to be 99.999% effective against the specific organisms responsible for DD, including Dichelobacter, Fusobacterium, Prevotella, and Treponema.

Reducing bacteria

The objective of footbathing is to ensure that the disinfectant can come into contact with the hoof to help reduce bacteria numbers, thus helping to cut infections.

"It is important to remember that all hooves will have a degree of coverage with organic matter, which can prevent the disinfectant reaching its target, no matter how good overall hygiene management is," notes Adrian. "The physical action of walking through the footbath will dislodge some of this material.

"Including surfactants in the footbath solution helps the disinfectant work through the organic matter, increasing the proportion reaching the animal's hooves. In addition to disinfection, our product contains conditioners that are beneficial for general hoof quality. These synergistic effects help ensure that



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the footbathing solution is as effective as possible, but to realise the full benefits, it is vital the footbath is used correctly."

The aim must be to allow each foot to get a minimum of two insertions in the solution every time a cow goes through the footbath. The bath therefore needs to be long enough to allow this to occur. A step in and out can encourage shorter steps and more insertions. The footbath needs to be deep enough to cover the dew claw, so a depth of 10cm is usually sufficient. The blue dye in Hoofshield Advance clearly indicates that cows have been through the bath and all feet have been dipped. "To allow for effective disinfection, correct dilution rates must be used. For standard dilutions, we advise using Hoofshield Advance at 1%, but where hoof condition requires attention or if DD is a significant problem, this should be increased to 1.25%," Adrian explains.

"Regular scoring gives a picture of trends in foot health."

"The solution will also need regular replenishment, ideally after every 250 cows. Regarding frequency of footbathing, in most cases using disinfectant three times a week will be adequate.

"DD will be a problem in many herds this winter, but by implementing hygiene protocols, including routine and effective footbathing, it will be possible to reduce the incidence and financial consequences."

