Maintaining hoof health in robotic systems

Stride
The UK Dairy Mobility Initiative

To what extent does milking system impact hoof health and what steps can producers take to improve mobility in robotically milked herds?

The Stride national mobility survey, carried out in the first half of 2024, was established to identify pinch points and opportunities to improve foot health and herd mobility. But did it highlight anything significant about the impact of robotic milking systems on cows' feet?

No real system effect

Respondents to the survey included 11% of herds milked through robots. The results revealed that:

- Levels of hoof health and mobility issues were not significantly influenced by milking system, despite a higher proportion of robot herds being housed all year round on cubicles
- A higher percentage of these producers/owners said they were responsible for managing mobility compared to conventionally milked herds. This probably reflects that robotic systems often allow a reduction in labour or have been installed where labour supply is a challenge
- There was no difference in the types of problems being faced with digital dermatitis, sole ulcers and white line disease being reported across all milking systems. Sole ulcers are slightly reduced in automatically-milk herds, possibly because cows are not spending extended periods of time standing in the collecting yard.
- Investment in mobility management systems, such as dedicated foot crushes, was higher in robot-milked herds
- Cows in robotically-milked herds tended to be foot trimmed more frequently, but a higher proportion of robotic herds are never foot bathed
- Robotically-milked cows are less frequently mobility scored

Identify problems – and go hard

The biggest challenge for robotically-milked herds is the early diagnosis of mobility issues. Mobility scoring can be challenging to carry out because cows are not observed on a daily basis as part of the milking routine. Technology, including camera systems, can provide a way to increase the timeliness of spotting cows with mobility issues.

Increasing the frequency of footbathing will be beneficial, either by moving the whole herd through a footbath regularly or using segregation gates to put cows through the footbath after a milking. This is particularly important because cows are housed for longer periods.

As robotically milked cows are more difficult to observe, lame cows maybe 'missed' or more severely affected when finally identified. So treatment approaches should be more intensive to accelerate recovery. For example, move to a block rather than just corrective trimming for bruising, or topical treatment for digital dermatitis rather than just cleaning and disinfection. The routine use of NSAIDs to reduce pain should also be considered.

To help reduce foot problems in robotically-milked herds, producers should implement strict routine protocols for foot bathing, mobility scoring and foot trimming. All are regularly required in dairy systems, so set targets, and react. It's vital to measure, manage and monitor.

Stride is the major industry-wide initiative committed to helping reduce the consequences of compromised mobility, improve productivity and reduce losses. Representing a broad range of companies involved in helping improve foot health and mobility, the partners in Stride are: Ceva, HerdVision, Hoofcount, IVC Farm Vets, Neogen, NoBacz, Teemore Engineering, and Zinpro. Stride is also supported by CowManagement magazine.

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