



Farmers underestimate occurrence of lameness in dairy cows

Lameness is the third largest cost for modern dairy farms in terms of disease control. Despite this, farmers do not have an accurate picture of hoof health among their cows.

However, in an EU-funded project, researchers have found that farmers estimated 5-10% of their herd had hoof problems. But after experts checked the herd, the real number was shown to be almost 25%.

According to a report from Netherlands-based Welfare Quality®, this translates into losses of €200 per cow, per year. The report concludes: “lameness accounts for a loss of 5% to 10% of a farmer’s annual income per cow.” But why does poor hoof health lead to lower milk yield? And what can be done to reduce it?

“The answer to the first question is simple enough,” says Bruno Van

Den Bossche, Product Manager Milk Quality and Animal Health at DeLaval. “Cows that don’t move around freely because they are in pain will not get up to eat and drink as often as healthy cows. And then, when they are finally up, they will stay standing for too long, losing valuable resting/ ruminating time. And then on top of all that, it is also harder to identify cows that are in heat.”

Total Hoof Care System

As for the question about reducing lameness, Bruno and his colleagues have discovered, by working with farmers and leading researchers from around the world, that there is no “silver bullet”.

“That’s why we attack the problem from different angles. This includes everything from cubicle design, mats and alley coverage, through manure scraping to hoof disinfectant products, application systems, nutrition and advice about hoof screening and trimming,” says Bruno. “We call this holistic approach the Total Hoof Care System.”

Cubicle design is an element that is often neglected. Christer Bergsten, Head of Research at the Department of Animal Environment and Health, Swedish University of Agricultural Sciences has written about the importance of good stall design. His research shows that if the lunge

space in a cubicle is too short, a cow will remain standing longer than she would otherwise. To lie down, an adult cow needs 0.5 m clear space in front: in all a cubicle should be at least 2.70 m long. Additionally, softness of the resting surface is an important component in cow comfort.

A more natural rhythm

Soft cow mattresses have also been shown to encourage cows to get up and lay down according to a more natural rhythm. It also increases the total amount of time they spend lying down, which helps boost milk yield. Like cow mattresses, alley coverage reduces stress on claws and encourages walking to the feeding alley and water trough, while making it easier to detect on-set of heat. DeLaval offers alley coverage that is gentle on hooves, non-slip and easy to clean.

“Keeping the barn as clean and as possible is of course key to promoting good hoof health,” says Bruno. “That’s why we have such a wide range of manure handling products including scrapers in different shapes and sizes, whether cable- or hydraulic-driven, chain or rope. There’s even a robotic scraper.”

New generation of sanitizers

But what Bruno is particularly excited about is the growing recognition of the usefulness of hoof baths: “Things are happening fast when it comes to cleaning and disinfecting/ sanitizing hooves. One, there are now modern sanitizers that are as effective as conventional one, they are competitively priced, and they are not harmful to the environment. Two, we are finding that a new two-step

solution – first clean, then sanitize – is producing great results when properly installed.”

The problem with traditional sanitizers such as copper sulphate or formaldehyde is their environmental impact. For example, a recent study of 30 dairy farms in Oregon in North America showed that 75% of soil in fields contained high levels of copper and 38% were extremely high. It concluded that using copper and zinc sulphate in hoof baths was leading to potential problems for crops and the environment in the long-term.

“What’s really encouraging,” says Bruno, “is that a product like DeLaval 4Hooves is as effective as conventional solutions, but without the environmental drawbacks. And then the clincher for many farmers is that it is in the same price bracket too.”

Two-step: first clean, then sanitize

The idea behind two-step hoof care is simple: by first cleaning hooves from mud and manure, the sanitizer will be able to do its job better in the second bath. “Placing the cleaning and sanitizing baths straight after milking seems to be the most effective layout for many farmers,” says Bruno. “And by using our automatic replenishing ABF1000 footbath, effective hoof care doesn’t have to be an extra time-consuming chore.”

When it comes to hoof health, routines play a central role: scraping routines, bathing routines and, not least, routines for screening and trimming. “We recommend that hooves should be checked two to three times a year, and hooves



Bruno Van Den Bossche

trimmed if necessary. But of course this differs according to climate, breed and farm type,” says Bruno. “Many farmers I meet seem to appreciate the expert advice in our booklet Efficient Hoof Management.”

Finding what works best for you

This 70-page booklet is available online or in a printed version. It is both a primer covering basic hoof anatomy and cow behaviour, and a hands-on resource full of advice and tips. “You could say that it summarizes our approach to hoof health: there is no one-size-fits-all solution. Every farm is different and it’s our task to help each and every one of our customers find the best solution for their farm,” Bruno concludes.

By Paul Jackson

