



# Review buildings to support hoof health



Housing and footbathing facilities and equipment can have a significant impact on cow mobility, so use the summer to assess systems and housing to see where improvements can be made.

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**C**ompromised cow mobility is a multi-factorial problem, and one area often overlooked when seeking to improve hoof health is the impact that buildings and facilities can have on cows' feet. These can include footbaths, cubicle design and also the siting of new technologies developed to help identify problems more quickly.

Zinpro's Huw McConochie says that rest or lying time is fundamental for cow health and welfare: "Because many important processes occur while cows are lying down, including processes that protect and improve hoof health.

Huw McConochie:  
**"Good cubicle design will support herd mobility"**



"When cows lie down, blood flow to and through their hooves improves, allowing better nourishment of the delicate tissues and removal of toxins that can impact claw health," he explains. "Lame cows will recover more quickly if they have access to comfortable cubicles. Conversely, if the cubicles are inadequate, lame cows are less likely to recover and are at greater risk of being removed from the herd."

### Cow comfort

Dr McConochie says cubicle design is closely linked to cows' frequency of standing up and lying down. In comfortable and well-designed cubicles, cows are more confident when standing up and lying down, which they can do more than 10 times a day. "For a lame cow the discomfort of standing up in a poorly designed cubicle will often have a negative impact on her desire to rest. In simple terms, why would she lie down if it hurts her to stand up again? "As a result, we see lame cows standing for longer in

the cubicle or lying for increased periods of time and not going to eat. This is one of the reasons why lame cows tend to be in poorer body condition."

Dr McConochie says the most important element of the cubicle is the surface. The goal is to provide a deep bed with at least 10cm of bedding material.

"This can be achieved by installing a simple 10-centimetre retainer on top of the rear kerb, and using sand or a mix of chopped straw, lime and water to fill up the beds."

He adds that it is also important that the brisket locator and neck rail are correctly positioned so cows do not soil the beds, keeping them clean and dry.

Producers should also look at lunge space. "It is important to ensure that obstructions in this area are limited because getting up in confined areas, in an unnatural position, puts excessive stress not only on her feet, but also the whole skeleton of the cow.

"We want cows to be able to replicate the natural lunging behaviour they can display at grazing when they are in the cubicles. So ensure there is nothing in the way to limit the cow lunging forward. If there is an obstacle, remove it."

### Preventing problems

To help focus on the key issues affecting mobility, he says the Zinpro FirstStep programme is an innovative approach to moving from simply managing the implications of foot health to proactively preventing problems occurring.

Zinpro is a partner in the industry-wide not-for-profit dairy mobility initiative, Stride, which is committed to improving cow mobility and increase the awareness of hoof-health management based on the largest survey ever carried out in the UK.

The Zinpro FirstStep programme can include: locomotion scoring; hoof trimming schedules and techniques; footbath management and hygiene, environmental factors, such as walking surfaces and cubicle design; identification of foot lesions; and nutrition. "The results are used to develop an action plan to address areas of management that will deliver the best return first, replacing guesswork with a fact-based approach," he says.

Mobility scoring is an aspect of herd management where new technologies can play an important role. When reviewing building layout to help improve mobility, 3D imagery specialist HerdVision's Andy Stewart recommends considering how a camera could be sited within 'cow flow' to increase the frequency and consistency of mobility scoring.

The HerdVision system is fully-automated mobility and body condition scoring technology that uses a combination of 2D and 3D imagery. The system streamlines the collection of individual cow mobility and body condition data through a robust camera setup that is easily installed above any race.

The camera captures data for every cow that passes beneath it, every time they do so, meaning cows can be scored every day. It's also unobtrusive and unnoticeable by the cows, so their behaviour is unaffected.

Accessible through a user-friendly PC dashboard and a dedicated app, the results provide actionable insights, including early warning alerts meaning potential



Hoof health: cow comfort improves lying times

problems can be spotted sooner, helping reduce the severity of the problem. The system also integrates with DairyComp 365 and Uniform, allowing producers to access the data through their current herd management system.

"Mobility scoring data is collected more frequently and consistently with no labour requirement," says Mr Stewart. "Problem' cows are highlighted, allowing them to be checked sooner and treated as required." The benefits of automated scoring are becoming more widely understood and the reliability of the technology is also proving to be robust. "More regular mobility scoring is often a challenge on many dairy units due to limited labour availability, so automation offers huge benefits. Time spent this summer identifying how and where a system could be installed will give producers back some control when it comes to tackling lameness issues when cows are rehoused." |

## Complete survey to enter prize draw



Help to build the UK's most comprehensive cow mobility picture by completing the Stride survey. It only takes a few minutes. Just scan the QR code – all participants will be entered into a draw to win one of more than 40 prizes, including a HerdVision camera system and a Zinpro FirstStep assessment.

