

Lameness common in dairy barns

By Barbara Duckworth
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Lameness in dairy cows is nothing new, but the condition may indicate other health problems.

Cows with sore feet visit feeders and robotic milkers less often, may have reproductive problems and may lie down more. Research from Great Britain shows one out of three or four cows may go lame in a typical dairy barn.

Lameness is considered the most serious welfare problem for dairy cattle because it is a source of pain resulting in higher treatment costs, lower milk production and poor reproduction.

Lameness costs an estimated \$8,000 per year in a herd of 100 cows, said Jeff Rushen of Agriculture Canada's Pacific Agri-Food Research Centre in Agassiz, B.C.

Colleague Anne Marie de Passille said it is often difficult to observe cows with foot problems on large farms because employees are busy performing multiple tasks and after a while the problem may be accepted.

As well, not all hoof problems affect gait and may go unnoticed for some time.

"To be honest I think we are used to seeing cows not walk well," she said. "They don't walk well on concrete."

Research shows cows walk better on rubber mats compared to hard, smooth concrete. Floors also need adequate drainage to protect hoofs from excessive moisture. Hoofs absorb water quickly and become soft, making them susceptible to wear and damage.

Cows walk best on pasture where the surface is softer.

Several causes

Hoof injuries are a major reason for lameness but there could be other problems, such as sore hips or hock injuries.

However, de Passille said more data

Determining lameness: pay attention to the gait

Limping cows are **reluctant to bear weight** evenly on each of their feet and are obviously lame, but other changes in posture and movement may be useful to detect foot problems before they become serious.

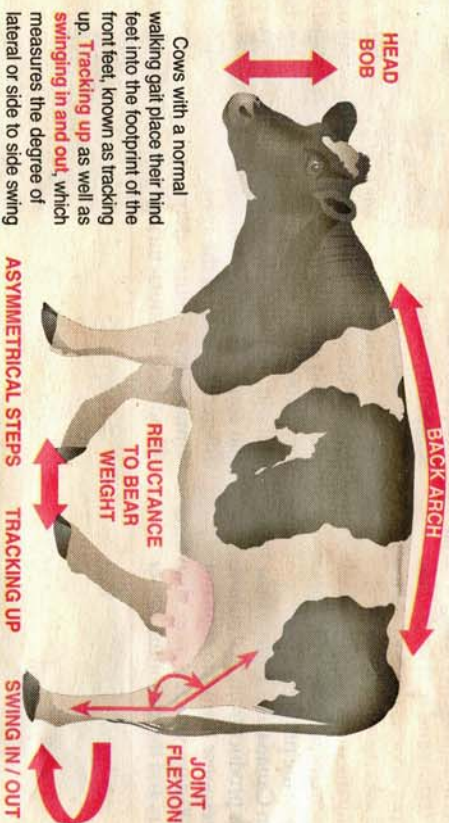
Researchers at the University of British Columbia are working on a system to measure the gait of dairy cows with foot problems.

Asymmetric steps are a variation on limping. Slight changes in the **timing or rhythm** of a cow's footstep pattern may indicate problems early on. Other aspects of behaviour being monitored are how much the **head bobs** up and

down when the cow walks and the extent to which the cow's **back is arched** when it walks.

of the feet during walking, are being explored. The **flexion of the joints** during walking may also serve as

important early indicators of lameness because they can show impeded freedom of movement.



Source: University of British Columbia

WP graphic by Michelle Houlden

is needed to measure real life situations.

Rushen said cow comfort should be a high priority animal welfare issue.

"Cows limp because it hurts," he said.

Derek Haley, provincial animal welfare specialist with Alberta Agriculture, said lameness is a major reason dairy cows are culled.

"The problem in lameness is not just because we don't see it," he said.

"The main tool people are using, regardless of farm size, is seeing a cow severely limping."

Other tools are being developed to help producers spot problems sooner.

A gait scoring system under development by the University of British Columbia evaluates an individual cow's movement, placement of feet

and other behaviour changes.

Producers who want to improve animal welfare in their barns by installing new floors or stalls face the potential problem of not getting the best product, even though all are advertised as designed for cow comfort. That's because there are no standards when it comes to the proven comfort of flooring and stalls.

"Going on pasture is a really important thing for hoof health to reduce lameness."

— Anne Marie de Passille, animal researcher

"No research is required and no standards are in place. Producers are often not aware that these are not tested, at least in any scientific way," said Haley.

"A lot of producers take it on faith that if the local supply store is selling these then they must believe in the product."

While many improvements dedicated to animal welfare pay for them-

selves with fewer death losses and less sickness, variability exists on farms and the effects of housing on animal welfare depend on small details about how farms are managed, making it difficult to draw conclusions about any one system.

Information from Great Britain showed farmers were trying to reduce lameness levels to 10 percent of the herd and some were achieving two to three percent.

The Canadian industry does not keep adequate records on lameness problems. However, more workshops are being offered to help producers identify lame cows.

For example, Quebec has developed a successful farmer course on cow comfort that covers stall design, floor surfaces, effects of cows' fear of humans, management and housing of calves, lameness problems associated with housing and handling and lameness detection.