

Feet, Legs and Welfare

Speakers share how lameness affects welfare and, thus, performance.

by *Kasey Brown*, associate editor, & *Troy Smith*, field editor

Lameness in cattle is defined as any leg or foot problem or abnormality that affects an animal's gait and behavior. It affects cattle in every production environment, including the feedlot. According to Karen

Schwartzkopf-Genswein, a researcher at Agriculture and Agri-Food Canada in Lethbridge, Alta., data related to the incidence of lameness in North American feedlot cattle is limited. While few feedlot

managers consider lameness a "big" problem, Schwartzkopf-Genswein said many will admit that it is a common one.

Speaking at the 4th International Symposium on Beef Cattle Welfare hosted



► Jan Shearer, professor of veterinary diagnostic and production animal medicine at Iowa State University (ISU), recommended that cattlemen describe feet issues more specifically to their veterinarians.

Diagnoses and treatments

Lameness has many causes and many treatments, agreed Jan Shearer, professor of veterinary diagnostic and production animal medicine (VDPAM) at Iowa State University (ISU). He explained 12 different causes of lameness and corresponding treatment recommendations (see Table 1).

Shearer said the feedyard industry has not done enough to address feet issues, especially because feet issues affect both

welfare and performance of the animals. He also recommended that cattlemen describe feet issues more specifically to their veterinarians.

Claw lesions are not the same as sole abscesses. Sole abscesses are not specific enough, Shearer said. Knowing the actual problem allows veterinarians to determine how and where to treat. Most feet issues, he added, cannot be treated with antibiotics.

— *by Kasey Brown*

Table 1: Twelve lameness diagnoses with recommended treatment options

Cause of lameness	Recommended treatment
1. Sole ulcer	Perform corrective trimming and attach a wooden block to the healthy claw to alleviate pressure on the damaged claw.
2. White-line disease abscess	Perform corrective trimming and attach a wooden block to the healthy claw.
3. Toe ulcer or toe abscess	Perform corrective trimming of all damaged tissue, even bone if necessary. Attach a wooden block onto the healthy claw. Amputation of the front half of a toe can also work.
4. Foot rot	Long-acting antibiotics will work. This is one of the few feet issues that can be corrected with antibiotics, Shearer said.
5. Digital dermatitis (also known as hairy heel wart, strawberry heel, etc.)	A footbath or topical spray can treat this, but Shearer said no systemic treatment works well.
6. Screwclaw	Corrective trimming works, but the condition is not likely to improve, Shearer said. Trimming is recommended every six months to a year.
7. Corn or interdigital fibroma	No treatment is recommended because this rarely causes lameness. Taking the corn out sometimes causes more problems, he noted.
8. Deep digital sepsis	This can be confused with foot rot, though antibiotics do not work for deep digital sepsis. With this, he said, normally only one side of the foot is affected, as opposed to the full foot swelling with foot rot. Deep digital sepsis can be operated on, but generally no treatment is effective.
9. Traumatic sole lesion	Perform corrective trimming and attach a wooden block to the healthy claw.
10. Laminitis or founder	Euthanasia is recommended, because this is a metabolic condition, he explained.
11. Sand crack, vertical wall crack or horizontal wall crack	Perform corrective trimming and attach a wooden block to the healthy claw. Shearer noted that 80% of wall cracks occur on the outside front claw.
12. Contracted tendons	The treatment depends upon the severity, but splints or casts and time can work to relax the tendons. If the tendons do not relax, he recommended euthanasia.



35 Keys to Success Animal Welfare

by Iowa State University (ISU) July 16-18 in Ames, Iowa, Schwartzkopf-Genswein called lameness an animal welfare issue because of the pain or discomfort it causes. Lameness hinders animal performance, too, slowing gain and increasing cost of production.

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PHOTOS BY KASEY BROWN

► “It should be no surprise that foot rot is the most common cause, but we are seeing quite a bit of digital dermatitis (hairy heel wart),” said Karen Schwartzkopf-Genswein, researcher at Agriculture and AgriFoods Canada, in Lethbridge Alta.

including metabolic issues, trauma, infection and genetics,” said Schwartzkopf-Genswein. “But it is often misdiagnosed. In many instances the true cause of lameness is not clear or is unknown.”

Schwartzkopf-Genswein told symposium attendees about an ongoing Canadian study with the objective of evaluating the occurrence, characterization and associated risk factors of lameness in Alberta feedlots. Preliminary data indicate that 22% of all cattle were treated at least once during their stay at the feedlot. Of those treated, 27.7% were identified as lame. The most prevalent type of lameness recorded was foot rot, which accounted for just more than 76% of all lameness cases.

“It should be no surprise that foot rot is the most common cause, but we are seeing quite a bit of digital dermatitis (hairy heel wart),” said Schwartzkopf-Genswein. “Feedlot managers in the U.S., as well as Canada, tell me that cases of digital dermatitis are increasing.”

While it is too early to draw any clear and certain conclusions, Schwartzkopf-Genswein said the study already shows that lameness is a significant health and welfare issue.

“There are many causes of lameness, including metabolic issues, trauma, infection and genetics, but it is often misdiagnosed. In many instances the true cause of lameness is not clear or is unknown.

— Karen Schwartzkopf-Genswein

It’s an issue belabored by critics of animal agriculture. Schwartzkopf-Genswein said the study should help with development of better diagnostic tools to determine actual causes of lameness and facilitate appropriate treatment. Researchers also believe the study should aid development of science-based recommendations for best management practices that reduce risk factors.

— by Troy Smith