



# Vet Call

► by **Bob Larson**, professor of production medicine, Kansas State University

## Cattle lameness

*Lameness in cows, bulls and replacement heifers is a common problem confronting cattlemen. In most situations, the problem is occurring in the foot, with occasional lesions in the shoulders, hips, knees and other joints. Problems in the foot can be due to injury, infections, malformations of the foot or a combination of these factors.*

### Foot rot

One of the most common problems of cattle feet is an infection of the skin and soft tissue above the hoof known as foot rot. The bacteria that cause foot rot are present in soil and are very common in cattle pens.

In order for the bacteria to invade the foot, a break in the skin must occur first. Injury that allows infection may be due to rocks or rough ground, crop residue stubble or extreme dryness. Wet and muddy areas can also be a problem in that prolonged exposure to wet ground can cause the skin to become soft and more easily injured.

All lame cattle should be confined in a squeeze chute where the foot can be lifted and carefully examined to make an accurate diagnosis. It is very easy to mistake a puncture wound or other problem for foot rot.

If identified early in the course of the disease, most cattle will respond to treatment with antibiotics with complete recovery. If the infection has had longer to invade nearby joints, recovery is less likely.

Prevention of outbreaks of foot rot is primarily directed toward maintaining

clean pens and designing watering and feeding areas to prevent the buildup of mud. Occasional, individual cases of foot rot are probably unavoidable, and these sporadic cases should be identified and treated as soon as possible. Use of feed additives such as iodine and antibiotics have not consistently been shown to be beneficial for preventing foot rot.

### Hairy heel warts

A disease called hairy heel warts or digital dermatitis can also occur on the feet of cattle. Most commonly, a painful raw area that can look like a wart and may have long hair-like growths is identified directly behind the heels, but the area between the toes can also be affected. This disease is common in dairy cattle herds and, although it is rare in cow-calf herds, it does occur in feedlot cattle and beef cattle that are housed in a drylot.

The current theory is that two or more microorganisms work together to cause the disease and that these organisms thrive in manure-contaminated water. Housing that minimizes the time spent standing in water is the best prevention. Footbaths with antibiotics are used for treatment in dairies.

### Other problems

Lameness in cattle can also be caused by infections in and around joints by bacteria that have traveled from other infections in the body. *Mycoplasma bovis* is an organism that is found in the lungs of some cattle with prolonged cases of pneumonia. This organism can travel through the bloodstream and infect joints and tendons, causing severe lameness. Many antibiotics do not kill the organism, and treatment of cattle with lameness due to *Mycoplasma bovis* is often not successful.

Lameness can be caused by injuries to the foot or leg. Puncture wounds from nails, glass or sharp pieces of metal can cause damage to the hoof itself or to the soft tissue around the hoof. Puncture wounds are often accompanied by a great deal of swelling and may appear similar to foot rot. Damaged or poorly maintained loading chutes, alleys or fences with sharp protrusions can also injure feet and legs.

Toe abscesses are most common in calves in confinement, particularly where sorting pens are abrasive and the cattle have soft hooves. Acidosis may also be a factor, and excitable behavior is considered to increase the risk that cattle may scramble on the concrete of the treatment or processing areas, causing abrasions of their toes, which allows infections to occur.

Toe abscesses are treated by nipping off the tip of the toe to allow drainage, administering antibiotics, and placing the cattle in areas with clean, solid footing. Sole abscesses are less common, but more difficult to treat than toe abscesses. The sole must be trimmed and the abscess opened to allow drainage, and a wooden block is glued to the opposite toe to keep the affected toe from bearing weight. Sole abscesses are most common on the inside toes of the front legs and the outside toes of the back legs and may be related to incidences of acidosis.

Laminitis is the foot problem most commonly associated with acidosis. In most cases of laminitis, the cattle are on a high-concentrate diet or on stalk fields with a lot of residual grain. Severe cases of laminitis in cow herds will result in the animal being culled.

### Structural problems

Structural soundness occurs in varying degrees, and structural problems can cause lameness. Pigeon toes, long toes and straight

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hocks are examples of some of the more common structural problems. Corkscrew hoof is a genetic problem and any animal with the condition should be culled from the breeding herd.

The hind leg should have an acceptable set to the hock as viewed from the side. The range of acceptability is 120° to 155°, with the ideal of 140°.

The post-legged condition, when rear legs have a greater than 155° set to the hock, is a fairly common and serious skeletal defect in beef cattle. Exceptionally straight hind legs are often associated with steep pasterns and straight shoulders. The bow-legged condition of hind legs is associated with a narrow placement of the feet and a disproportionate amount of weight on the outside claw, which can lead to lameness.

When evaluating front limb structure, cattle should have an adequate slope to the

shoulder (45°-50°) and the legs should be acceptably straight when viewed from the side and front. Front legs that bow inward at the knees up to 10° are considered acceptable, but knees that bow outward even slightly are unacceptable.

### Summary

Cattle lameness due to foot rot can usually be corrected with timely and appropriate therapy. Other infectious problems such as digital dermatitis and toe or sole abscesses are more difficult to manage, but many affected cattle can be successfully treated.

Malformations in the legs or toes often have a genetic component and, although treatment such as corrective foot trimming can make the cattle more comfortable, no long-term cure is available.

Whenever cattle become lame, it is almost always a good idea to confine the affected animal in a squeeze chute or tilt-table that allows thorough examination so that an accurate diagnosis can be made and appropriate treatment initiated.



**E-MAIL:** [rlarson@vet.ksu.edu](mailto:rlarson@vet.ksu.edu)