



Watch Your Step

Recognize common bovine hoof diseases.

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Warmer weather and wet conditions can create the perfect environment for lameness-inducing bacterial infections in cattle. Gregg Hanzlicek, veterinarian with the Kansas State University (K-State) Veterinary Diagnostic Laboratory, shares his tips for preventing, identifying and treating two hoof diseases.

Foot rot

With a reputation for causing headaches for producers in the livestock industry, foot rot accounts for most cases of lameness in pastured cattle. The infection is caused by bacteria present in the rumen of healthy cattle and found naturally in the soil.

“We can sample cows and calves without foot rot, take a swab of their feet, and we are going to find these bacteria,” Hanzlicek said. “They’re everywhere.”

If the skin’s integrity is there, these bacteria cause no problems, he said. For cattle to develop foot rot, the skin must be broken. Most producers have likely dealt with foot rot at some point on their operations.

“It’s probably not a big deal if we have a cow or two with foot rot, but if we have a bull out there that’s lame with foot rot, we know our breeding efficiency is likely to go down,” Hanzlicek said.

During the summer heat, cattle are often found standing on muddy pond banks, which can weaken the integrity of the skin and allow for infection. Worse yet, foot rot isn’t limited to wet conditions — the infection can become a problem in just about any environment.

“Extremely dry conditions that let the skin crack can bring on foot rot,” Hanzlicek said. “Sharp rocks, corn stubble later on in the fall and even frozen ground as we get into the wintertime can bring on foot rot.”

The first signs of foot rot are subtle swelling and lameness, and it can be hard for producers to spot.

“Early on in the disease it’s symmetrical, meaning the entire area above the hoof wall will be swollen,” Hanzlicek said.

He added that leaving the condition untreated could compromise treatment later on: “It will advance into more chronic stages where the tendons and the tendon sheath within those feet will become infected.”

The key to successfully treating foot rot is catching it early, Hanzlicek said. Producers should remember that if they have a lame cow or bull, and the lameness is in the foot, foot rot is a likely culprit.

When it comes to treatment of foot rot, Hanzlicek said there are several options.

“There’s several good injectable antibiotics labeled for cattle for foot rot,” he said. If producers choose to use a product not labeled for foot rot, a veterinarian’s prescription is required.

Preventing foot rot is easier in drylot conditions vs. open pasture, Hanzlicek said. A producer’s best shot for prevention is providing 2 to 4 ounces (oz.) of trace mineral per day.

“The two minerals we’re most concerned about or that have the biggest play in skin integrity are zinc and copper,” he said.

Hanzlicek suggested producers provide the necessary trace minerals and practice other preventative methods before resorting to the vaccine that is available for foot rot. He said there has been some question regarding the functionality of the vaccine.

“I know of no controlled trials that showed it’s effective,” he said. “If you’re doing everything you can, and you have a foot-rot problem and want to add the vaccine, talk to your veterinarian.”

Hairy heel warts

Dairy producers are well-acquainted with hairy heel warts, an affliction that could become more of a problem in the beef sector. An estimated 70% of dairy operations are

plagued with hairy heel warts, Hanzlicek said.

“It’s not common in pastured cattle,

but we are getting calls from producers saying it’s in the cow-calf industry today,” he said, “so we look at it as more of an emerging disease.”

Hanzlicek said he is aware of at least two purebred operations selling breeding bulls this past spring that had bulls in the sale with hairy heel warts. This has led him to believe hairy heel warts are going to become more of a concern in the cow-calf sector.

Some feedlot veterinarians, he said, have reported that the condition is becoming a problem in the feedyard, which is more understandable. Unlike foot rot, hairy heel warts are extremely contagious.

Herds reporting a high occurrence of hairy heel warts are typically housed in wet



► **Above:** Cattle producers should monitor their herds for hoof diseases, including foot rot and hairy heel warts, particularly in wet, muddy pastures this summer and beyond.

environments, Hanzlicek said, adding that most of the diagnostic lab's calls about the issue have been from producers who calve in muddy lots. Importing replacement animals has been associated with hairy heel wart problems, but the most likely cause is poor sanitation practices during hoof trimming.

Contrary to its common name, the infection is not a "wart," which is caused by a virus. While Hanzlicek said experts believe bacteria called *Treponema* cause the infection, attempts to cause hairy heel warts by exposing animals to the bacteria have been unsuccessful.

The appearance of lameness in the animal is similar to foot rot, he said. Hairy heel warts are circular, red to reddish-gray sores on the back of the foot and usually the back feet, right above where the hoof attaches to the skin. To distinguish between foot rot and

hairy heel warts — which are fairly similar in clinical appearance — it's about the placement of the lesions.

"Foot rot's going to have a crack between the toes; it usually starts at the front of the foot," he said. "Hairy heel warts usually start at the back of the foot, just above where the hoof wall attaches to the skin below the dewclaws."

Hanzlicek warns producers that although lameness might not appear severe, applying pressure to the affected area can trigger a dangerous response from the animal. Producers and veterinarians should be careful when they're examining animals they think have hairy heel warts.

Treating hairy heel warts is tougher and less effective than treating foot rot, Hanzlicek said. Rather than an injectable antibiotic, a topical antibiotic seems to be most effective for treating hairy heel warts.

"We're talking about spraying oxytetracycline or a couple of other products on the lesion," he said. "The downside is it needs to be done every day for multiple days."

Hanzlicek said hairy heel warts can be cleared up, but it might not be gone for good.

"After the first treatment, we know that a pretty good percentage of those animals we treat for the first five days may recur with the disease within another couple of weeks, and we're going to have to re-treat them," he said. "If I were a producer, and I had any idea it was hairy heel warts, I would call my veterinarian and have them confirm the diagnosis."

For more information, contact the K-State Veterinary Diagnostic Laboratory at 785-532-5650 or log on to www.ksvdl.org.

