



Manage Foot Rot to Protect Cattle Herd Performance

Producers who recognize foot rot and develop strategies to prevent and treat it can successfully protect their cattle herd's performance. Causing an estimated 75% of all lameness diagnosed in beef cattle, foot rot, or interdigital dermatitis, can be detrimental to the health of a herd and profits of an operation.

Lameness and swelling related to foot rot threaten performance by causing reduced feed consumption, ultimately resulting in reduced weight gain. In addition, cows affected by foot rot may not get the nutrition they need to produce sufficient milk for nursing calves, and affected



bulls are less likely to breed cows during breeding season.

Conditions for foot rot

Foot rot is a bacterial infection in the skin and subcutaneous tissue between the toes of the foot that can extend into tendons, ligaments, joints and foot bones. The bacteria that cause foot rot – including *Fusobacterium necrophorum* and *Porphyromonas levii* – are common in the environment but need the right conditions to grow and cause disease. A break in the skin or a laceration is required for the entry of the bacteria that can cause infection.

"Damp conditions predispose the feet of cattle to damage and infection, making it important to watch for foot rot during wet times of the year or in areas where there is a buildup of mud and/or manure," explains Gordon Brumbaugh, DVM and anti-infectives specialist with Pfizer Animal Health. "It is difficult to totally eliminate rocks, gravel, forage or ice from pastures or corrals, but it is important to recognize that these, or other sharp surfaces, can cut the skin between the toes of the foot and allow bacteria to invade and cause an infection. Vigilance to remove those can help control foot rot."

Technically, foot rot is not contagious, but chances are good that if one animal develops foot rot, the conditions are right for more animals in the herd to become infected. Also, discharge from the wounds of infected animals may seed the ground with infection-causing bacteria.

Preventing and managing foot rot

Effective strategies for prevention and treatment are important in managing foot rot because of the potential for lameness – the primary and most obvious sign of foot rot. Swelling and lameness can come on suddenly, becoming so painful that cattle lie down and refuse to stand or eat. According to one study, steers with lameness related to foot rot gained 0.45 lb. less per day compared to noninfected animals.

After a proper diagnosis is made with the help of your veterinarian, Brumbaugh recommended starting treatment. Although some very mild cases may respond to cleaning and topical therapy, most cases require the use of systemic anti-infective therapy.

"Extended therapy products can help reduce or limit disease-causing bacteria for a longer period of time and allow the animal's immune system more time to overcome the effects of the bacteria," Brumbaugh adds. "And to help limit recovery time, affected animals should be kept in dry areas, if possible, until healed."

Managing this condition starts even before cattle are infected. "By taking the precautions to limit bacterial growth in the surrounding environment, you

can save time and money and keep your herd as healthy as possible," Brumbaugh says.

Research shows up to 15% of a herd could become affected by foot rot in the right conditions; therefore, recognizing situations that are conducive to infection is the first step in prevention. Although not fatal, if the infection spreads to an animal's joints and causes severe lameness, the disease can result in an animal needing more extensive treatment or culling.

Foot rot management includes not only treating affected cattle with trusted anti-infectives but also taking steps toward prevention. According to the *Beef Cattle Handbook* from the University of Wisconsin, follow these recommendations to help prevent foot rot:

- Keep cattle yards clean and free of sharp objects like stones, glass or rough ground.
- Cover frozen ground with straw.
- Thoroughly clean pens and spread lime after cattle are removed.
- Ensure cattle yards have adequate drainage.
- Create a dry area for cattle to stand with mounds of soil, bedding or concrete slabs.
- Use concrete in areas where cattle congregate, like around water tanks and feed bunks.
- Spread lime with 5% to 10% added copper sulfate around watering units and feed bunks.
- Consider the use of walk-through footbaths.
- Provide good nutrition, including phosphorus (P), vitamins A and D, and zinc (Zn).

"Because the organisms that cause foot rot are found everywhere, the best way to prevent the disease is to promote hoof health," Brumbaugh encourages. "Then watch for signs of the disease, recognize the condition early and treat according to your veterinarian's recommendations." **HW**

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