



# Cattle Producer's Handbook

## Animal Health Section

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### Foot Rot of Cattle

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Foot rot of cattle (infectious pododermatitis) is characterized by acute or chronic necrotic inflammation of tissues between the claws of the feet. It is the major cause of lameness in cattle.

#### Cause

Foot rot is an infection of the soft tissue between the claws (digits) of the feet and is caused by two anaerobic bacteria (these are bacteria that grow in the absence of oxygen)—*Fusobacterium necrophorum* and *Bacteroides melaninogenicus*. These bacteria are common in the environment and *F. necrophorum* is present in the rumen and feces of normal cattle. Once these bacteria invade the skin of the foot, they rapidly cause the condition recognized as foot rot.

Injury or damage to the skin between the claws allows this invasion to occur. Common factors that can cause damage of this sort include:

- Stubble fields
- Small rocks and pebbles
- Abrasive surfaces

Additionally, high temperatures and excess moisture or humidity cause the skin between the claws to chap and crack allowing these bacteria to invade. With wet winters and springs, the advent of hot weather provides the ideal conditions for foot rot to become a major problem in the summer.

#### Signs and Epidemiology

The appearance of foot rot is fairly typical and begins as a swelling of the skin between the claws. This swelling usually begins within 24 hours of the onset of the infection. The toes become separated due to the swelling and the skin appears reddened. The foot is very painful, and the animal can be quite lame at this time.

A fissure or crack develops along the swollen area for part or all of the length of the affected interdigital space. Yellow to grayish tissue extends from this crack, and the lesion has a characteristic foul odor. The area around the coronary band can be swollen and red.

Affected cattle can have a mild fever, refuse feed, lose weight, and be mildly to severely lame. Also, it is common for affected cattle to lose a considerable amount of weight during a bout with foot rot.

If the foot rot lesion does not heal satisfactorily, serious problems can develop. The structures just beneath the skin of the foot include the bones of the foot, the tendons, and joint of the foot. If these underlying structures are invaded by bacteria (particularly the joints, bone, or tendons) therapy is difficult and the chances of recovery are much lower.

Foot rot can usually be recognized in typical cases, however, several conditions can be confused with foot rot, which include:

- Corns
- Puncture wounds due to nails
- Needles or other sharp objects
- Sole abscesses
- Fractures of the bones of the foot

All lame feet should be carefully examined, and it should not be assumed that all lame cattle have foot rot. If you have any questions regarding the condition affecting your cattle, you should contact your veterinarian for diagnosis and advice.

Feet infected with *F. necrophorum* serve as the source of infection for other cattle by contaminating the environment. Disagreement exists on the length of time *F. necrophorum* can survive off of the animal, but estimates range from 1 to 10 months. Once loss of skin integrity