



Foot Rot

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Foot rot is manageable and preventable. Prevention is the most important key to your farm operation. This is a problem that we are seeing across Pennsylvania and the nation. This problem is one of the most expensive and time-consuming chores associated with sheep production.

What is Foot Rot?

Foot rot, in general, is characterized by lameness and a separation of horny portions of the hoof from the sensitive tissues underneath. The early stage of foot rot is the reddening of the skin between the claws that results in tissue death. The initial reddening of the skin is sometimes known as foot scald. The second stage of foot rot is the undermining of the horny tissue at the heel or the inside center of the toe. At this point there is a foul odor. The third stage of foot rot is when the entire sole and sometimes the whole hoof wall are undermined into the sensitive tissues that usually attach to the hoof wall. Both claws may be affected at the same time. Also more than one foot may be affected. During an outbreak there may be many different stages evident at any one time.

Cause

The primary causative organism is a bacterial agent, *Dichelobacter nodosus*. This organism must be present for foot rot to occur on your farm. If this organism is eradicated then the foot rot will be non-existent. This organism will survive in soils for two to three weeks. And, it can survive in the hoof wall of some sheep for several months.

Transmission

The route of transmission from one sheep to another is fairly simple. The organism travels from the infected sheep to the soil and then to the non-infected sheep. This organism is usually introduced into a clean flock by the shepherd purchasing infected sheep, mixing with an infected flock, or by using a facility after an infected flock.



Humans can spread the disease on their boots. Many farms are requiring the use of either disposable boots or rubber boots that can be disinfected. This method of transmission is often overlooked. Visitors to your farm should be required to either disinfect their boots upon arrival or wear disposable boots.

Prevention

Management practices that help reduce hoof damage will help reduce the incidence of foot rot. Keep the hooves of the sheep trimmed to reduce stress on the soft tissue of the foot.

The use of a footbath is also recommended. Be sure to examine the hooves of any animal that you are going to purchase and keep them quarantined for several weeks after they arrive at your farm.

Maintain good drainage around water troughs and feed bunks. During the winter months keep the feed areas smooth. These areas can be smoothed to reduce the injury to the foot.

Another method that helps to prevent foot rot is to feed zinc sulfate or zinc oxide in the mineral mix. It is also helpful in treating foot rot. Contact your feed mill or your local extension agent for help in developing a mineral mix.

Treatment

There are several different methods used to treat sheep for foot rot. Typically, you need to use several methods to control foot rot. Treating sheep at the first sign of any lameness and routinely running sheep through a foot bath is important for controlling foot rot once it has been identified on your farm.

Foot trimming is the first step in treating foot rot. Trimming the foot will cut away any cracked areas in the hoof and help to prevent the foot rot organism from becoming established. Sheep who have foot rot should be trimmed to remove all infected areas. It is extremely important to open up these areas so that the foot bath solution and air can reach the damaged areas.

Unfortunately



this may also cause some bleeding. Do not become alarmed at the sight of the blood. A small amount will help to cleanse the foot. For routine trimming, trim sheep with healthy feet first so that you do not spread the disease to them. Then, as you work on the sheep with infected feet, use a Clorox solution to disinfect the foot trimmers between each sheep.

Once the infected foot has been trimmed, the foot should be soaked in a foot bath for a few minutes. For small numbers of sheep you may want to mix a small amount of solution in a small container and individually soak each foot. For large numbers of sheep you will want to construct a foot bath that includes a system of panels to direct them into the foot bath and requires them to stand in the solution. Typical footbath solutions are made up of either zinc sulfate or copper sulfate. Follow directions on the label for mixing. Zinc sulfate is colorless, but copper sulfate will leave a bluish green color on anything it touches. If you produce a high quality wool, you will want to stay away from the copper sulfate. You can also use other foot treatment medications to treat one animal or a small number of animals at a time. Products that you can use include Dr. Naylor's Hoof and Heel or Kopertox.

For sheep with chronic foot rot, you may want to treat with antibiotics. Penecillin, streptomycin, or tetracycline have all been proven effective at treating foot rot. If the sheep with the chronic foot rot do not clear up with antibiotic treatment, you should consider culling them. Be sure to follow directions on the label for withdrawal periods prior to slaughter.

Footvax is a vaccination that can be used for the prevention of foot rot. It is made from killed viruses of several strains that cause foot rot. The injection is given under the skin in the neck. Withdrawal is 60 days before slaughter for this product.

Foot rot takes a lot of time and energy, but it can be eradicated on your farm. Use several different methods and monitor the flock for lameness. Treat as soon as any sheep start to limp and regularly run them through a foot bath. The effort is well worth the results.

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