

# Review of Lameness

There is not a shepherd in the world that will not have to deal with lameness in his/her sheep flock. It can be mild or severe and may affect one sheep or the majority of the flock. In the next few paragraphs we will review the most common causes of lameness, how to differentiate the disease, treatment and prevention.

When evaluating a sheep or flock for lameness first examine the animal in the pen or flock from a distance. Is the sheep lame on just one foot or on more than one? How severe is the lameness? Can the sheep keep up with the rest of the flock? This is also a good time to check the sheep's record to determine if she has ever been treated for lameness.

After examining the sheep from a distance you will want to catch the sheep and tip it on its rump. All four feet should be trimmed. I like to start with the sound feet and end with the foot that the sheep is limping on. This serves two purposes: 1) it allows the shepherd, especially inexperienced ones, to get an idea of the appearance and texture of a normal hoof and 2) if the sheep has foot rot you will not drag the infection to the other hooves. Hooves should be trimmed down to the soft tissue. Don't be afraid to hit blood once in awhile. Inspect the area between the hooves for signs of foot scald. If all four hooves are normal feel the foot, leg and all the joints. Pay close attention to any swelling or heat. Examine the skin for wounds. Flex and extend all joints. Watch the sheep for signs of pain when feeling the leg and moving the joints.

Contagious Foot Rot is the most economically significant cause of lameness in the sheep industry. Flock infection can be severe enough to cause many shepherds to leave the industry or depopulate their flock. The first clue of contagious footrot is the presence of odor when trimming the lame foot. The odor, although difficult to describe, is very strong and can be noticed at a distance of several feet. The hoof wall may become extremely hard and cracked while the hoof tissue is often liquid or mushy. If contagious footrot is present you have simultaneous infection of two anaerobic bacteria *Dichelobacter* (*Bacteroides*) *nodosus* and *Fusobacterium necrophorum*. Both of these bacteria are anaerobic and die in the presence of oxygen. This is why it is critical to trim the foot down to fresh tissue. Never wrap the foot in a bandage as this prevents oxygen from killing the bacteria. Treatment of contagious footrot on a flock basis requires a multifaceted approach. This includes footbaths, treatment and quarantine of infected animals, vaccination, rotation of pastures and culling of chronic or reoccurring cases.

Foot Scald, while often a frustrating disease, is much easier to treat than contagious footrot. Foot scald is caused by the bacteria *Fusobacterium necrophorum*, which is found in the soil of all barnyards. Foot scald is easily differentiated from footrot as the lesion is between the hooves. The hooves are normal when trimmed but you will find a whitish, pasty material in between the hooves. Often there will be caked mud on the hairs of the lower leg as this infection is most severe in wet muddy environments. Since the bacteria is anaerobic and dies in the presence of oxygen the most beneficial treatment is to get the

sheep out of the mud. Unfortunately, this is often easier said than done, such as in the spring here in the Midwest. Again, footbaths are beneficial in reducing the number of new cases and vaccination with Volar is beneficial on some farms.

Foot abscesses occur more infrequently than foot rot or foot scald and often only one or two animal in the flock are affected. A foot abscess is an infection in the soft tissues above the hoof. The hoof tissue is normal and odor is not present. The tissue above the hoof will be warm and sometimes even hot to the touch. The swelling is noticeable and the area will be painful when squeezed. Foot abscesses occur from trauma to the feet such as grazing stubble or rocky pastures. Individual treatment with antibiotics, anti-inflammatory drugs and lancing the abscess are effective and sheep respond well to treatment.

Chlamydia polyarthritis is a major cause of lameness in growing lambs. Lambs will be severely lame on one or more legs. On close inspection the hooves are normal but there is obvious swelling and heat in one or more joints. The joints will be painful when flexed and extended. Lambs will have a moderate fever and will be off feed. Chlamydia is a contagious organism and multiple lambs will be affected. Treatment with tetracycline is effective early in the course of the disease. If treatment is delayed damage to the joint will occur and treatment will not be effective. This results in a chronically lame feeder lamb that fails to thrive.

There are other conditions that can occasionally cause lameness such as fractures, muscle sprains and bruises. These are individual problems that will not occur as a flock outbreak. These miscellaneous conditions can often be differentiated by feeling and moving the leg. As with all causes of lameness moving the lame sheep to a small, clean pen with less competition, treatment and time will heal most sprains and bruises. If the fractures occur in a young lamb they can be splinted and heal well.

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