

Post Rock Extension District Column

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Prepare Today to Combat Lameness this Grazing Season

Dry conditions that the central and southern plains have been experiencing may lead to increased foot issues. Several issues could be the culprit of cattle lameness, and we will review some of the common causes, including the key differences between clinical signs. It is a good idea to contact your local veterinarian to create a treatment plan for these conditions prior to the grazing season. Footrot is a common disease process that occurs in pastured as well as confined cattle. Footrot is a bacterial infection beneath the skin of the foot that causes obvious lameness even early in the disease process. Upon closer inspection, producers will notice a crack in the skin between the hooves and a foul, pungent odor. Swelling usually starts below the dewclaws on the back of the hoof. As the clinical signs progress, the symmetric swelling will move up the leg and even, in some cases, separate the toes. It is always important to closely inspect symmetric swelling cases. Wire, bale wrap, or other foreign bodies can wrap around and entrap the lower foot, causing very similar symptoms to footrot. If the swelling has a well-demarcated line horizontally across the foot, further investigation is warranted. The entrapping foreign body must be removed. The bacteria that cause footrot are normally found in the environment and in the digestive tract of cattle. These pathogens simply need a breakdown or opening in the skin barrier to invade. Producers often think about footrot when the environment is extremely wet. However, chapping and cracked skin between the hooves of cattle often occur during continuously dry conditions. This dry scenario can be true of the upper Great Plains during the cold winter months or drought-filled summers in the South. Other environmental factors affecting the skin integrity can be short abrasive stubble, thorns, rocky or rough ground surface, or even standing in ponds for a long period of time. Thankfully, there are several approved injectable antibiotics available, and treatment is typically very rewarding when treated in the early stages of the disease. With delayed or late treatment of cases, however, deeper structures of the foot (tendons, joints, and even bone) may become involved. Delayed treatment often requires extended therapy and leads to increased cull rates from the herd. It is important to work with your veterinarian to have a chosen treatment plan as well as follow up. Typical footrot cases begin to show improvement or even resolution within 3 or so days. If improvement hasn't occurred, either a deeper infection has occurred, or another cause could be the culprit.

Single-sided or asymmetric swelling of the foot often indicates a more serious condition in cattle. This type of clinical sign is often the result of deep structural issues. Puncture wounds, sole abscesses, stone bruises, or chronic infections can cause joint, bone, or tendon infections. Single or multiple joint swelling with lameness can also be observed. In calves, this is often the result of septic arthritis. This is a bacterial infection of the joints. It is not uncommon to see this condition a week to 10 days following a bout of respiratory disease with some pathogens as well. Even with appropriate treatment, the inflammation in the joint often takes several weeks to resorb back into the body. Joint swelling in mature animals can also occur. Many times, this is a result of an orthopedic breakdown. Torn cruciate ligaments in the stifles of breeding bulls, or hock damage from riding activity, are examples of these conditions.

Obvious lameness to one or more limbs with no noticeable swelling can often be challenging to diagnose appropriately. One of these conditions is called Hairy Heel Warts, also known as Digital Dermatitis, or Strawberry Footrot. These animals often display obvious lameness and will attempt to walk on the "tippy toe" of the foot. Upon closer observation, you will notice wart-like growths or bright red scab lesions below the dewclaws and above the heel bulbs of the foot. Topical treatment with an astringent or

antibacterial solution is warranted for this condition. The last condition we see more commonly in newly arrived stocker calves is called toe tip necrosis (toe abscesses). These animals often appear with shifting lameness of the back legs. They will usually stand in strange orientations to protect and relieve pressure on the damaged toe. Treatment of these consists of picking up the feet and using hoof testers to confirm the condition. Then the toes are slightly opened with hoof nippers to release the pressure, followed by an injectable antimicrobial treatment. Without opening the toes, healing will not occur. Lameness can be challenging to diagnose in field situations, but understanding the subtle differences will help with proper and timely treatment. Visit with your veterinarian about any non-responsive lameness issues. Further diagnostics and treatment may be indicated.

Thanks to K-State Beef Veterinarian, A.J. Tarpoff, for information on causes of lameness for this grazing season. For further information, contact me at any Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne, or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Blaire may be contacted at blairet@ksu.edu or by calling Beloit 738-3597, Smith Center, 282-6823, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook at "Post Rock Extension" and remember our website is www.postrock.k-state.edu.