Lots of Rain, More Problems!

So with all of this rain, we have lush grass growth. More moisture can mean more flies, mosquitoes and foot rot!

Foot rot is a necrotic infectious disease of cattle (and other livestock) which causes swelling and lameness in one or more feet. "Necrotic" implies tissue decay and death, and if you've been around a bad case of foot rot you know that it can get pretty stinky. Spreading of the toes and dewclaws are fairly classic signs of foot rot. Generally, some injury or softening and thinning of the skin between the toes provides the entry point for the infectious agents that cause foot rot. This might be from rough ground, muddy conditions, or a myriad of other conditions that cattle might encounter in their environment. The bacteria cannot gain entry to the skin by themselves and cause foot rot.

A bacteria called *Fusobacterium necophorum* is most commonly associated with foot rot. It is a normal resident of the digestive tract in ruminants, and may survive in soil for up to 10 months. It secretes a toxin that interferes with white blood cells ingesting bacteria and causes the tissue decay and pockets of pus. In cattle foot rot, *F. necophorum* commonly cooperates with another bacteria, *Bacteroides melaninogenicus*, which produces protein-degrading enzymes that damage the subcutaneous tissue and tendons. Treatment of foot rot is generally quite successful, especially when treated early. Recovery can often be observed in 3-4 days from one antibiotic treatment. Multiple treatments may be necessary if the foot rot is not caught early and has progressed over the course of several days. Penicillin, oxytetracycline and sulfonamides are effective antibiotics to use for foot rot cases (always read and follow label directions, using appropriate administration technique). If animals do not respond at all to treatment within 3-4 days, evaluation by a veterinarian in a timely manner may be advised.

Prevention of foot rot may focus on management practices that reduce the likelihood of injury to the skin between the toes. Maximizing drainage around water tanks or other areas that are likely to get muddy (feed bunks, etc.) and minimizing time cattle spend standing in wet areas or on rough ground (perhaps easier said than done!) decreases conditions that might predispose foot rot.

Some producers may have used supplements containing chlortetracycline (CTC) for control of the diseases on its label and seen decreased foot rot incidence. You will need to get a Veterinary Feed Directive to use (CTC) supplements.

Another approach to prevention is to focus on mineral nutrition, particularly zinc. Zinc is important in maintaining skin and hoof integrity. Cattle should be

provided with adequate dietary zinc to help minimize foot rot and other lameness issues.

Consult with your Veterinarian on your treatment protocols.