



# Northwest Veterinary Associates, Inc.

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## July 2018 Newsletter – Common Hoof Diseases *Prepared by Dr. Tom Linden*

Northwest Vets will again be hosting another edition of the Franklin County Dairy Discussion Group this upcoming August 21<sup>st</sup>! We will be having some excellent speakers coming to discuss all things hoof health, so for this month I thought I'd do a brief review of the most common causes of lameness in dairy (and beef) cows. Please see below for more details on the upcoming meeting!

Many studies have shown the economic cost of lameness in dairy cattle may range between \$90-\$300 per case. There are many causes of lameness, but most causes (at the level of the hoof) may be broken down into 2 categories: infections vs. non-infectious. Knowing this can help you decide on treatment (antibiotic vs. not), and more importantly, what strategies to use for prevention of lameness.

### Infectious

*Foot rot* – Caused by bacteria. Cows become lame and have symmetrical swelling above the hoof (this area is very tender if touched). A deep fissure will form between the claws. There is a strong, foul odor that is characteristic of the disease. Treatment is with an appropriate antibiotic labeled for use in cases of foot rot (eg. Excede).

*Digital dermatitis/hairy heel warts* – Similar to foot rot, heel warts are caused by bacteria, but genetics and previous bouts of heel warts also play a role. A study by the University of Wisconsin showed only 13.7% of cows developed heel warts during their 1<sup>st</sup> lactation if they had no incidence of such prior to freshening. In cows that experienced just 1 case of heel warts prior to freshening, that number jumped to 45.6%. For 2 or more cases prior to freshening, it was 67.6%!

Cows will be severely lame. A raw, bright-red or black circular growth can be found on the back of the foot just above the level of the heel bulbs. The edges of the area will have a white ring or hard, thin, hairy, wart-like growths or sores. Historically, treatment was with topical Oxytetracycline powder, but this is no longer allowed under the Veterinary Feed Directive. Non-antibiotic topical products often containing salicylic acid or copper have been used successfully in lieu of oxytet powder.

Both of these conditions are prevented by good manure management and use of routine, properly designed foot baths.



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## Non-infectious

*White line disease* – This term collectively refers to a group of abnormalities affecting the junction between the sole and the hoof wall. The major abnormalities occurring at the white line are hemorrhaging, fissures, and abscesses. Either poor oxygenation (laminitis) or increased enzymatic activity allows for instability of the bone within the hoof, weakening the junction between the sole and hoof wall. Many factors are attributed to white line disease including hormonal (stress around calving time), nutritional (ruminal acidosis), and environmental (heat stress, slippery flooring) changes. Poor animal handling will also lead to white line disease (think how much torque may be applied to a hoof wall from an animal spinning quickly). Treatment often requires corrective trimming and placing a hoof block on the normal claw of the same foot to alleviate pressure/pain.

*Sole ulcer* – These occur when there is not enough of a fat pad to cushion the weight of the bone in the hoof pressing down on the sole. Risk factors for sole ulcers include increased standing time, over trimming, wet conditions, excessive body condition loss and/or nutritional changes. Treatment for sole ulcer is to remove weight bearing from the affected portion of the hoof by corrective trimming and applying a hoof block to the healthy claw.

*Toe ulcer* – This condition results from over wear or over trimming at the toe tip. The resulting thin sole at the tip is more susceptible to deformation from stepping on stones (especially in pastured animals) or irregular features of the flooring. This condition often requires removal of the diseased toe tip with hoof nippers and wrapping to prevent hemorrhage.

Having a good working relationship with a hoof trimmer, having routine trims, and monitoring trim records to identify patterns can help prevent/address these diseases.

### **Save the date for the next FCDDG meeting!**

**Tuesday August 21<sup>st</sup> @ 6:30pm – Lely building, Enosburg Falls**

Dane Schoenbaum and Neil Andrew of Zinpro will be discussing all things hoof health! This will include a brief overview of performing a routine trim, how to spot and troubleshoot lame cows, foot bath design and heel wart control, creating trim lists, analyzing hoof trimming records, etc.

Please RSVP by calling or emailing us.

We hope to see you there!