

Troubleshooting Pasture Lameness. Its not always Footrot!!



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Lameness

- May be the biggest opportunity for improvement in the industry
- Significant losses
- Has been identified as a major point of focus, and as a welfare concern in all livestock industries
 - Beef- Fatigue cattle syndrome
 - Dairy
 - Swine
 - Poultry






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Lameness Estimates

- 16% of all treatments
- 5% of deaths
- 70% of railer slaughter


Griffen et al. 1993

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Beef Cattle Lameness Economics: Feedyard

Items	Cost/head treated
Loss to overhead	\$51.00
Loss from chronics	\$37.38
Treatment cost	\$15.50
Total Footrot Cost	\$103.38

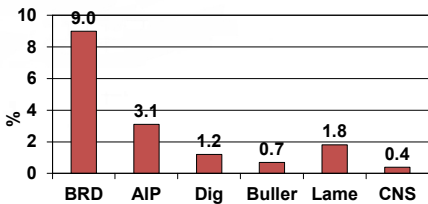


Current market values (\$120/wt 500 lb feeders, \$200.00/cwt (cwt and \$95.00/finished cattle) incorporated in model from Dr. Dee Griffin, DVM, University of Nebraska)

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2011 Feedlot NAHMS Data Percent of Placements Affected by Disease Type



Disease Type	Percent of Placements Affected (%)
BRD	9.0
AIP	3.1
Dig	1.2
Buller	0.7
Lame	1.8
CNS	0.4

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Early Treatment=Success

- Do we have the right diagnosis?????
- Cattle are prey species
- Don't show us all their symptoms

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On operation diagnosis

What tools are used for diagnosing the cause of the lameness in the chute?
(Could select multiple answers)

Palpation of foot, joints, and upper leg for swelling and heat	48%
Picking up the foot to visualize the bottom of the foot	60%
Picking up the foot and using hoof testers	20%
Visualization of foot, joints, and upper leg for swelling	89%
None	2%
Other:	3%

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Where is the lameness?

- Most studies agree
 - Up to 90 % of lameness stems from the foot!
 - 80% stems in from rear limb
 - 70% from the lateral (outside) toe



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Proper Diagnosis

- Footrot
- Deep infections
- Toe abscess
- Septic joint
 - Arthritis
- Hairy Heel Warts
- Injuries

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Questions to ask

- Swelling?
 - Yes/no
- Where is the swelling?
 - Foot?, Joint?,
- Is the swelling **symmetric** if its on the foot?



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“Footrot”

- AKA
 - Infectious pododermatitis
 - Interdigital necrobacillosis
 - Interdigital phlegmon
- Not necessarily any animal carrying a leg



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Footrot

- *Fusobacterium necrophorum*
- Begins with a skin abrasion
- Swelling surrounding the foot
- Noticeable lameness
- SMELL!!!



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"Footrot"

- Diagnosis
 - **Symmetrical** swelling between toes.
 - Broken skin
 - Foul odor
 - You may treat animals with minimal swelling as footrot when other causes of lameness are ruled out



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Treatment

- Antibiotic treatment warranted
 - Many labelled options
- Pain control?
 - Banamine Transdermal labelled for pain of footrot
 - Dexamethasone?
 - Immunosuppressive?
- Timing of treatment critical in recovery
 - Should show resolution within 1 week
 - Clubfoots seldom recover



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Delayed Treatment



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Abx Choices?

- Oxytetracyclines (some formulations Rx)
- Sulfas (boluses)
- Ceftiofur (Rx)
- Florfenicol (Rx)
- Tulathromycin (Rx)
- Many options (and generics), ask your veterinarian for recommendations

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Footrot prevention

- One commercial vaccine is available
 - “Fusogard”
 - Few peer reviewed reports on efficacy
 - 2005 Canadian feedlot study
 - Only saw effect on forage based diet
- Footbaths not practical in pasture settings


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Footrot prevention

- The main prevention is environmental control
 - Mud, manure, wet conditions
 - Standing in ponds
 - Improved watering location
 - Focus on common areas they frequent
 - Water source, supplement areas, feeding areas




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Is this symmetric?



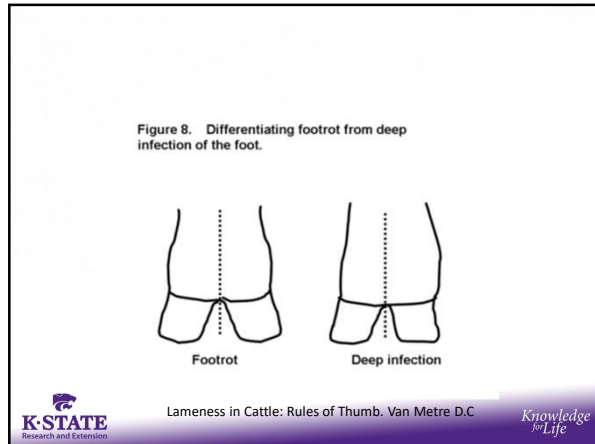
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Notice the Dewclaws






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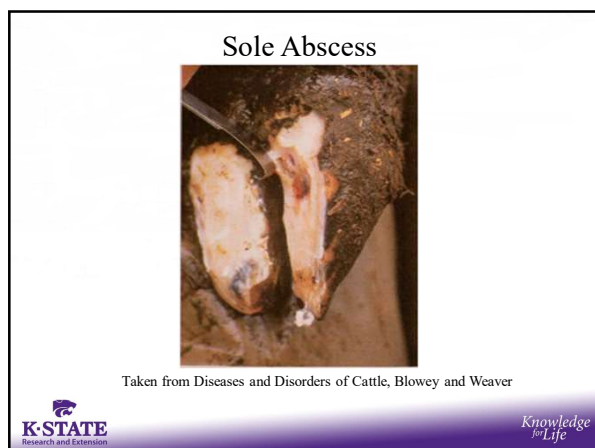
Deep infections

- Puncture wounds/chronic footrot/deep sole abscess
- Will not heal without extensive treatment
 - Infection must drain/heal from inside out
- May involve joints/tendons
- Contact your veterinarian
 - Pear out abscess/infection
 - Place block on other toe to facilitate movement
 - Potential amputation of infected toe- Salvage procedure

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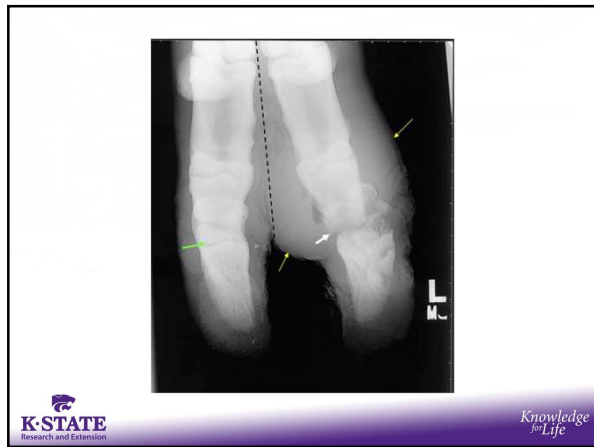
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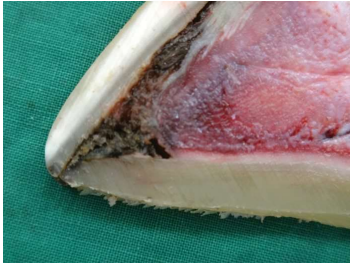


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Toe tip necrosis/toe abscesses



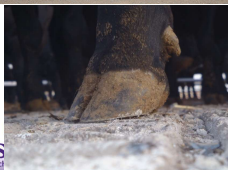
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What causes toe abscesses?

- Predisposing factors include cattle temperament, handling, softening of the hoof due to moisture
 - Cattle fight to get to the middle of the group when threatened (or sorted)
 - The powerful hind legs are used to push as the cattle mill about
 - The toes of the feet (especially the rear feet) may be ground down enough for infection to set in
 - Standing long periods of time on concrete?

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Causes



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Diagnosing toe abscesses

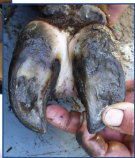
- Often no swelling in fresh cases
- Can you tell the difference between a lower and an upper leg lameness?
 - Again, often hard to tell.
 - **Walk to protect the toe**
 - Does not always appear the same as other types of lameness
- Use hoof-testers to find the affected toe
- You may be able to pare down to the abscess with a hoof knife
- Most of the time you will need to take the tip of the toe off with hoof nippers to allow drainage

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IDENTIFYING THE PROBLEM



- Pick Up The Foot
- Wash It
- Examine To Determine Cause of Lameness







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TOE ABSCESS

TREATMENT

- Tip Toe To Drain Abscess And Relieve Pressure
- *DO NOT TRIM ENOUGH TO CAUSE BLEEDING*
- May require extended therapy





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Treatment Success??

- 50/50 if treated appropriately
- 100% failure if not treated








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TOE ABSCESS

PREVENTION



- Quiet/Calm Cattle Handling
- Provide Nonabrasive Footing In Alleys And Working Areas





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Joint Issues





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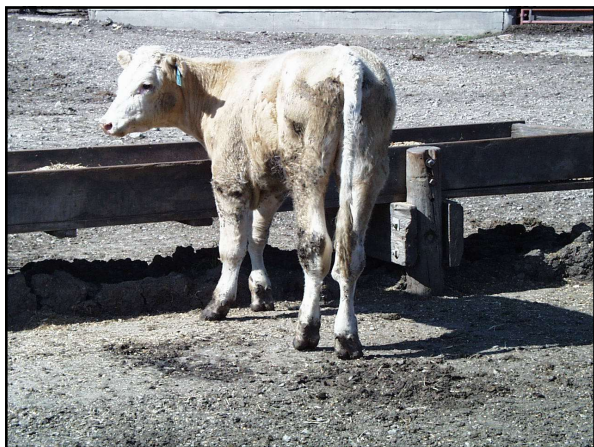
Septic Arthritis (calves)

- May occur **after** initial respiratory disease
 - *Histophilus somni*
 - *Mycoplasma bovis*
- Routinely see lameness ~ 1 week + following treatment for BRD
 - Not Footrot!!





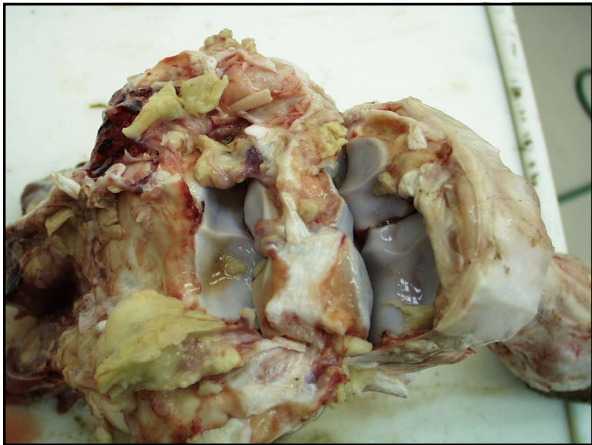
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Treatment

- Remember, Mycoplasma does not have a cell wall
 - Penicillin and Ceftiofur are a poor choice
 - B-Lactams work against the cell wall of bacteria
- Recovery takes extended periods of time
 - Bacteria gone, but inflammation remains



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No Swelling. 3 Legged Lam. What is it??



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Hairy Heel Warts

- "Strawberry footrot"
- "Digital Dermatitis"
- No swelling
- Very painful
- Contagious
- Bacterial cause, but exact agent is unknown
- A Spirochete bacteria called Treponema



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Digital Dermatitis

- Very common in dairies
- May be an emerging issue in feedyards and cow/calf
- Bright red lesion in heel area of the foot

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Digital dermatitis diagnosis

- Reluctance to walk, often in multiple individuals with a pen
 - **Very painful** and often bilateral
- **Walks on tippy toes**

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Digital dermatitis treatment

- +/- Systemic antibiotic treatment
 - May not have much effect
- **Topical Treatment! (Abx, formalin, copper tox etc)**
 - If you bandage it make sure you either wrap so the bandage comes off in 12-24 hours or take it off in that time.
- Keep in clean/dry pens
- Prevent outbreaks with good pen maintenance

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Hoof lacerations



Laceration

Sole

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Lacerations

- If present, consider where the laceration came from
 - Processing facility
 - Transport
 - **Wire wrapped around hoof**
 - Look for delineated line across the foot. Wire can be deep into the skin

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Lacerations



Laceration

Sole

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Lacerations

- Therapy
 - Antibiotic therapy for secondary infection
 - Clean wound
 - House in dry environment

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Stifle injury

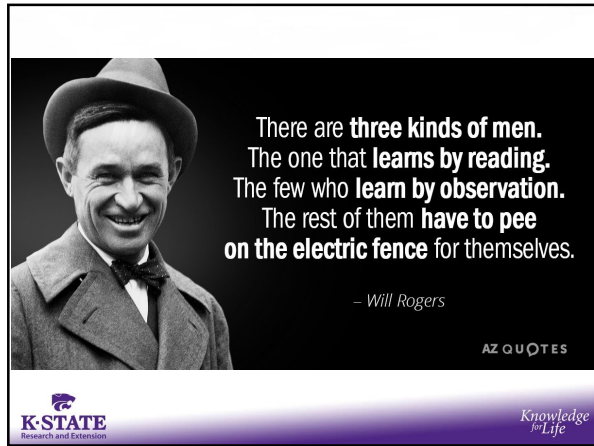


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Stifle Injuries

- Bulls mounting on uneven ground or unsure footing
- Hock and stifle flex independently
 - Looks like a broken leg at first
- Mild to no swelling, but can still put pressure on it
- Fracture:
 - flop and twist, swelling would be extreme, non weight bearing

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