BEEF EXTENSION WITH UCVM

Pain and inflammation associated with digital dermatitis and lameness in feedlot cattle

**DIGITAL DERMATITIS (DD)**
- Infectious skin disease
- Painful to touch
- Inflammatory

DD Lesion stages:
- Absent (no lesion)
- Active (ulcerative)
- Chronic (necrotic)

**ARE DD LESIONS PAINFUL?**
- All DD lesions are painful
- Feet with Active DD lesions were most painful and withstood the least amount of pressure
- Chronic DD lesions although necrotic are painful and withstood significantly less pressure than a normal foot

**DOES DD INCREASE FOOT TEMPERATURES?**
- Foot temperatures of feet with DD (33.4°C) were different from feet without DD lesions (30.2°C)
- Foot temperatures of Active DD lesions were not different from that of feet with Chronic DD lesions

**LAMENESS SCORE (LS)**
- LS0 - Normal/non lame
- LS1 - Mild lameness
- LS2 - Moderate lameness
- LS3 - Severe lameness

**MEASURING PAIN AND INFLAMMATION**
- Algometer: Records pressure-pain threshold from applied force
- Infrared Thermal Imaging Camera: Measures temperature of object surfaces / proxy for inflammation

**DOES LAMENESS INCREASE PAIN?**
- Lame cattle with DD experience more pain and have higher foot temperatures compared to lame cattle without DD

**TAKE HOME MESSAGE**
- All DD affected cattle experience pain
- Pain and foot temperature is greater when cattle are lame
- Cattle with DD should be treated to improve their welfare

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