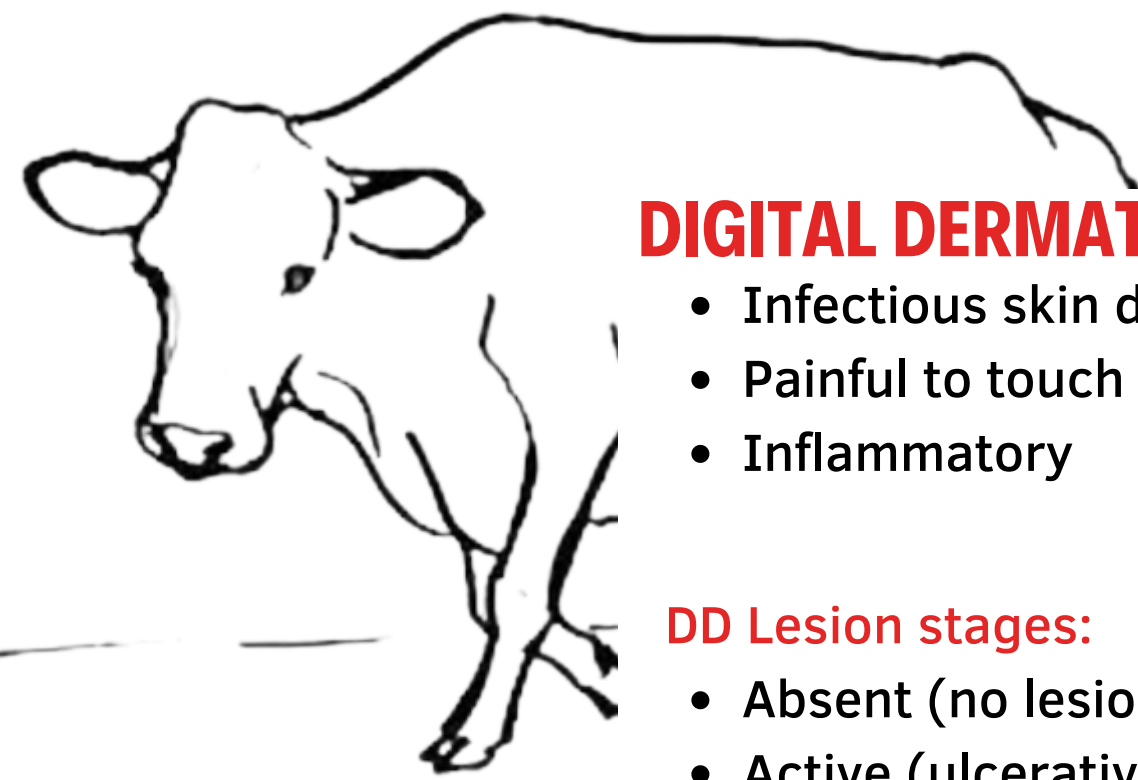


BEEF EXTENSION WITH UCVM

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)



MEASURING PAIN AND INFLAMMATION



Algometer

Records pressure-pain threshold from applied force

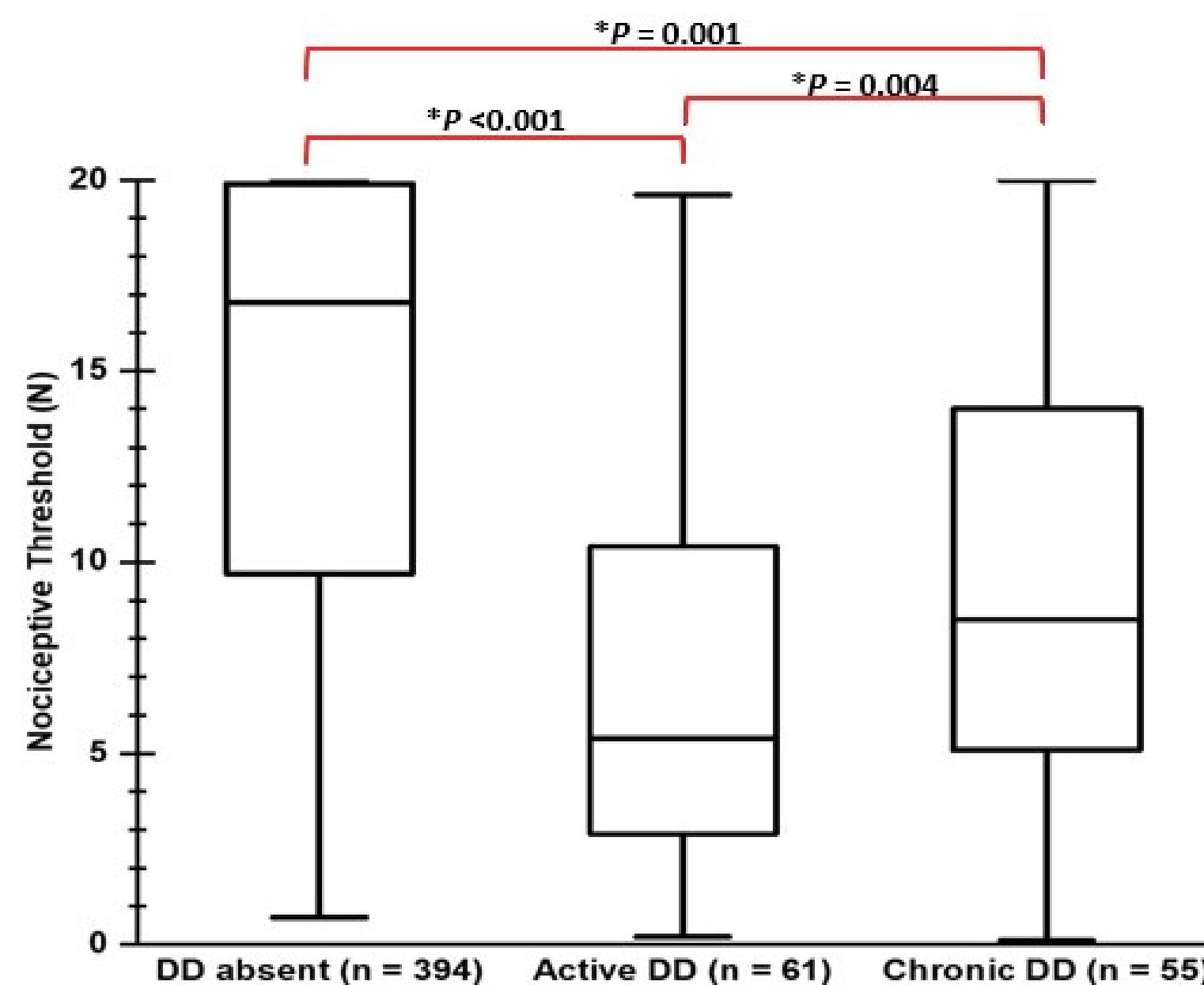


Infrared Thermal Imaging Camera

Measures temperature of object surfaces / proxy for inflammation

LAMENESS SCORE (LS)

- LS0 - Normal/non lame
- LS1 - Mild lameness
- LS2 - Moderate lameness
- LS3 - Severe lameness



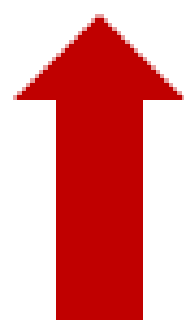
ARE DD LESIONS PAINFUL?

- 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

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