Lameness in Sheep

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Introduction

- Shelly hoof
- Foot abscess
- Footrot
  - Benign
  - Virulent
- Arthritis
- Other
  - Trauma
  - Scabby mouth
  - Strawberry footrot
  - Mineral/vitamin deficiency
  - FMD
Shelly Hoof

- Separation of hoof wall from sole
- Packs with dirt and manure
- Wet conditions can lead to infection
- Lameness none to severe
- Hereditary? White footed Merinos, front feet.
- Treat by foot paring and cleaning, foot-bathing or antibiotics if infection, dry ground
- Prevention by regular foot trimming, selecting for good feet
Foot abscess

- Infection inside the foot
- Trauma, wet conditions, heavy sheep
- Severe lameness, swelling above the hoof, pus discharge from heel, toe or coronet
- Usually one foot, front – toe, hind - heel
- Can lead to joint infection
- Treat with foot paring, antibiotics, dry paddocks
- Prevention with foot trimming, foot-bathing, avoiding wet paddocks and foot trauma, esp pregnant ewes – pregnancy toxaemia
Foot abscess
Footrot

- *Dichelobacter nodosus* – benign and virulent strains
- Will not infect dry feet
- Can live in sheep’s foot for years
- Can only survive in environment for 4 days
- Needs correct environmental conditions to spread:
  - Temp between 10 – 20 degrees C, 4 – 5 days
  - 6+ weeks rainfall of 50mm/month
  - Active pasture growth, esp clover, leafy plants
- Young merinos most susceptible
- Severity of disease is dependant on environmental condition
Benign footrot (scald / interdigital dermatitis)

- Moist inflammation between the claws, mild under running of heels (Score 1, 2, 3)
- Can progress to under running of sole (Score 4)
- Usually more than one foot affected
- Lameness usually mild but can become severe in heavy sheep
- Infection regresses without treatment in dry conditions
Virulent Footrot

- Severe and progressive under-running of heel, sole and wall (Score 3,4,5), putrid smell
- Develops quickly under favourable conditions with rapid spread
- 10% of flock have score 4 & 5 lesions
- More than one foot, severe lameness, flystrike
- Suppression of symptoms in dry conditions, becomes chronic with deformed feet
- NOTIFIABLE DISEASE
Chronic Virulent Footrot
Regulatory requirements for Virulent Footrot

• Must notify LLS inspector within 48 hours
• Inspection of 100 sheep, +/- lab testing
• Difficult diagnosis on Monaro
• Flock quarantined, ‘undertaking’ signed
• Approved footrot eradication program
  – Destock
    • Restock in 7 days
  – Inspect and cull
    • Cull affected, footbathing, 6 weekly inspections until 2 clean turns, then clearance exam
  – Inspect and treat
    • Separate affected, foot bathing and antibiotics, 6 weekly inspections until 2 clean turns, then clearance exam
  – 2 years to eradicate disease, then destocking order
• Movement permits
• Sale to slaughter only
• Neighbour notifications
• Tracing – backwards and forwards
Arthritis

• ‘Arthro’ – joint, ‘itis’ - inflammation
• Types of arthritis
  – Degenerative joint disease (age, wear and tear)
  – Immune mediated arthritis (rheumatoid)
  – Infectious arthritis (bacterial)
• Arthritis in lambs:
  – Suppurative
    • Joint ill
    • Strep, Staph, Actinomyces, E.coli, etc...
    • Blood borne, 2ndry to wound – marking, umbilical, grass seed
    • Severe lameness, hot, swollen joints, pus discharge
    • Diagnosis – joint fluid and culture, post mortem
    • Treatment – antibiotics early
    • Prevention – colostrum, good hygiene, fly control
Arthritis - Erysipelas

- *Erysipelothrix rusiopathiae* bacteria
- 10 – 14 days after marking or muelsing
- Knee, elbow, hock, stifle
- Initial fever & joint pain, no swelling – recovery
- Chronic form at 6 months, thick, swollen, fluid filled joints.
- Diagnosis – joint fluid, post mortem
- Treatment – penecillin
- Prevention – colostrum, good hygiene, fly control
- Vaccination – Eryvac, ewes at joining then 4 weeks before lambing, annual booster.
Arthritis - Chlamydia

- *Chlamydophilia pecorum*
- Lambs 3 to 6 months old, British breeds (Dorset), rapid growth on improved pastures
- Ingestion, inhalation of infected faeces, urine, ocular discharges
- Initial fever, stiffness, lameness, conjunctivitis, swollen, fluid filled joints.
- Diagnosis – blood test x 2, joint fluid/PM and exclusion of other causes, PCR
- Treatment – Oxytetracycline
- Prevention – colostrum, good hygiene, fly control
Other causes of lameness

- **Trauma**
  - Usually individual animal
  - Bruising, abrasion, laceration, fracture

- **Scabby mouth**
  - Scabs to face, udders, feet
  - 2ndry infection can lead to lameness

- **Strawberry footrot**
  - Dermatophillosus (lumpy wool)
  - Wet conditions

- **Mineral/vitamin deficiency**
  - Selenium, Vit E, Copper, Calcium, Phos, Vit D
  - Weakness, go down when driven, sudden death
  - Abnormal gaits, sway back
  - Rickets, fractures

- **Foot and mouth disease**
  - Exotic disease
  - Blisters then sores between toes, above hoof, around mouth, udder
  - Highly contagious, rapid spread