

## **Understanding Metabolic Diseases**











### **Metabolic Diseases**

- A group of conditions caused by deficiencies of certain essential nutrients resulting in disturbance of the animal's normal metabolic processes.
- Most common during times of high physiological stress i.e. lambing/calving and pregnancy
- Slow birthing process may be subclinical presentation





Short green feed, slow growing



- Low roughage, low rumination, low Mg and reduced buffering (NaHCOs)
- Rye grass and cereal crops, High N and K
- Need Roughage
- Need Ca Mg and Na supplement





Short green feed, slow growing



- mJ deficient, physically not enough from the paddock. CS for E? or feed E?
- Highly digestible, high Energy, high Protein,
- Balanced? Need E to process surplus protein (starch = grain, lower protein)





Short green feed, slow growing



- Worm egg hatching, low grazing,
- WEC critical, culture gives guidance
- Effective drench at weaning (combination)
- Early weaning planning?





### It's all about Nutrition

- Metabolic diseases are managed with good nutritional planning and management.
- They are often overlapping, and it can be hard to diagnose the specific cause
- Ca Milk fever
- Ca: P osteoporosis/urolithiasis
- E Preg Tox
- Mg Grass Tetany
- Plus PEM (b1), ADE







### **Prevention and Treatments**



- It's all about Nutrition
- And consistency of delivery/time off feed
- And minimise/manage stress
  - Handling, feeding changes, anticipate weather transport
- Early intervention
  - Flopak, ketol, antibiotic, anti-inflammatory





### **Actions**

















## **Abortion investigations**

Stress, heat load, systemic or metabolic related, toxins

- Infectious abortions sheep
  - Campy, listeria, toxoplasma,

- Infectious abortion cattle
  - Lepto, pesti, Neospora,





## Campylobacter



- Most common cause of infectious abortion
- Common low level, occasionally devastating
- Diagnose with culture of foetus
- High rainfall high stocking rate
- Containment or trail feeding, cell grazing
- Indications of exposure with blood testing

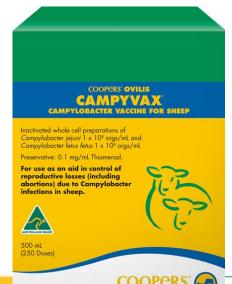




## Recommended Vaccination Programme

- Do older ewes need a booster?
- Risk assessment, (high stocking rate or trail and containment feeding)
- benefit to cost is usually there.



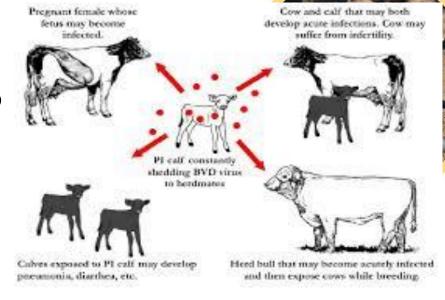






## **Pestivirus**

- Naïve animals at risk
  - Abortions
  - Born as PI that shed virus
  - immunosuppression
- Blood test a sample from the heifer group to help decision making
- Track down the PI ??
- Just vaccinate ??







## Pre lambing calving treatments for neonatal issues

- 2-4 weeks pre lambing/calving
- Pre birthing drench as required (wec)
- Sheep Long acting dench if paddocks are dirty and discuss primers/tailcutter treatment
- Clostridial vaccines (plus)
- Arthritis Erysipelas issue?? Umbilical cord.

Disease protection is colostrum

Minimise exposure to bacterial contamination





# Prelambing treatments flock health opportunity

- Pre lambing drench lice Flexolt
  - 4 weeks pre lambing
  - Eradication at minimum sheep numbers
- CAUTION
  SITE OF THE PROPERTY O

- Lameness
  - Footvax







## Precalving treatments herd health opportunity



- Lice,
  - Mectins ??
  - Deltamethrins
  - Stampede, IGR
- Calf Scours
  - Diagnosis, Rotavec Corona, Salmonella
  - Paddock management (Cryptosporidium)
- Bovine Respiratory Disease





## Neonatal survival basics normal season

- Monitor paddocks
  - Interventions
- Early intervention
  - Flopak, ketol, antibiotic, anti-inflammatory
- Record and Investigate losses to identify potential causes and patterns.
  - Weighing dead lambs
  - Post mortem lambs, calves, abortions
- Modify management next season





- Good preparation
  - condition score and food on offer for birth weight
  - shelter minimises lamb losses
- Feeding during lambing/calving.
  - Feeding practices (feeders, vehicles, time of day)
  - Drift lambing/calving.
  - Supplying supplement (blocks, licks, energy)
- Plan for Early weaning





## Marking/mulesing

- Practice
  - Timing, numbers

- Hygiene
  - Equipment, site,
  - conditions

Pain relief









### Lambs 5 in 1 or 6 in 1 Cattle 5 in 1 or 7 in 1

- Clostridium tetanus.
- C perfringens D
- C novyi
- C chauvei = black leg.
- C septicum = malignant oedema
- Sheep Corynebacterium pseudotuberculosis = Caseous lymphadenitis
- Cattle Leptospirosis x 2







#### 8 in 1

- Clostridium tetanus.
- Cl perfringens D
- Cl perfringens B
- Cl perfringens C
- Cl novyi
- Cl chauvei = black leg.
- Cl septicum = malignant oedema
- Cl haemolyticum







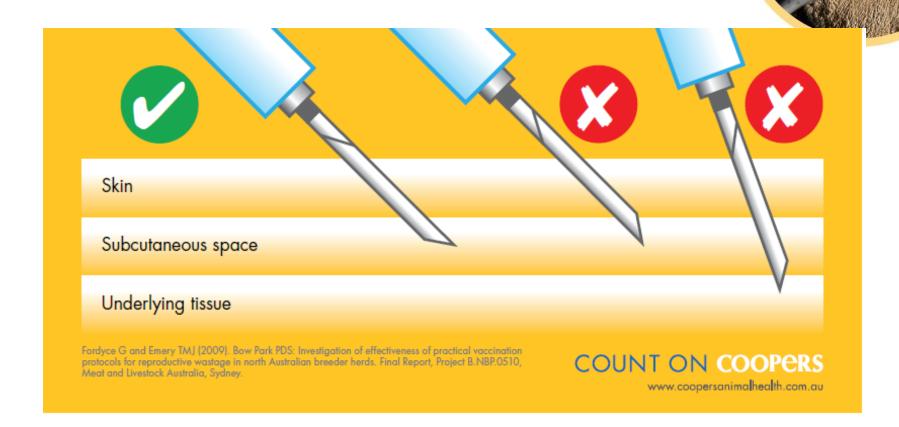
### Vaccination technique

- Cold chain, Fridge, Esky at yards and insulated pouch
- Change needles regularly (every 30/100 0or when blunt /dirty/change bottles) especially when wet. Beware strong disinfectants.
- Take your time means no wastage, effective immune response, better placement.
- Vaccines with oil more likely to cause lumps.





## Vaccination technique







## **Lamb Weaning**

- Vaccination programmes work when primed and boosted properly
  - Later Boosters will work (Pre feeding Pre lambing)
  - Cheesy Gland (carcase trims, weight gain,) controlled
  - Erysipelas arthritis minimised
- Others
  - Effective drench (combination)Drench check??
  - Permatrace Se Co 3 years payout in sheep





## **Calf weaning**

Yard Weaning



- Bovine Respiratory Disease MH IBR
- Pinkeye Piligard/M bovoculi
- Worms Combination drench

Trace Elements – Injection v Permatrace





#### Mastitis

- Bacterial,
  - Environment/contagious
- Opportunistic (teat orifice, milk discharge)
  - Dry off practice
- Ascending infection from the environment,
  - don't hold in muddy yards
- Early antibiotic and anti-inflammatory treatment
- ID for culling







## **Early Weaning**

- Allows Ewe/Cow recovery
- Better feed and water utilisation
- Wet and dry opportunity to sell down



Reco is 45% SRW (shorn, full rumen, not pregnant) in sheep EW is 10 kg lambs 8 wks, 100 kg 12wks calves (or younger)

- imprinting on mum (rumen dev and trained)
- Drenching effective drench (combination)
- Draft out the bottoms and manage separately.



