Acidosis

(grain overload, founder)

DISEASE OF FEEDER LAMBS/GOATS:

- Mostly lambs/goats coming from range weaning and being placed on concentrated diets
- Should change from 15% concentrate to 85% concentrate over 14 – 21 days

CAUSE:

- The consumption of an excess amount of concentrates either by accident or during adjustment periods to high concentrated diets
- Concentrates are fermented by the rumen micro-flora, which produces acids
- Usually lambs/goats have time to adjust to the acidity, but if change is too sudden the bacteria produce high levels of acid, which kills the micro-flora and damages the rumen lining
- The acid is absorbed into the system and disrupts the acid-base balance
- If the animal does survive, there may be permanent damage to the rumen wall and abscesses on the liver

SYMPTOMS:

- Occurs 6 -12 hours after consumption
- First sign is depression, with ears and head lowered, and abdominal discomfort
- Becomes recumbent and unable to rise
- As it progresses, becomes comatose and dies
- Entire process could take as little as 24 hours
- If it survives, bumping the rumen may produce splashing sounds due to fluid build up
- Examination of the mucous membranes of the eye show a congestion of blood

DIAGNOSIS:

- Watch and keep records of sudden changes in feed and consumption along with the symptoms
- The diagnosis can be confirmed by necropsy of dead animals, examining the rumen, and acid pH tests

TREATMENT:

- Early treatment is essential for recovery
- When showing symptoms, drench with antacids:
    - Carmalax

    - Bicarbonate of soda
    - Magnesium hydroxide
- Give 10cc Penicillin mixed in with the drench
- For valuable animals, give 500ml of electrolytes (lactated ringers) or bicarbonate of soda intravenously
- For extremely valuable breeding animals, rumen can be pumped
- Drench with 60-100 ml mineral oil
- Give tetracyclines (oral or injectable) for 1 week

PREVENTION:

- Careful management of concentrate intake
- Adequate bunk space
- Separate animals that do not appear to be doing well
- Put electrolytes in water
- Mix bicarbonate with feed during adjustment periods
- Be sure animals can not get into the feed room

Sources: SID Handbook & Journal of Animal Science