Review of Metabolic Disorders

AG 240
Winter 2005
Anemia

- **Cause**
  - Low Iron, copper, cobalt, folic acid, riboflavin or B6

- **Symptoms**
  - Loss of appetite and listlessness
  - Pale membranes around eyes and mouth
Feedlot bloat

- Cause
  - High concentration rations increases slime producing bacteria in rumen
    - Slime traps gasses
Pasture bloat

- **Cause**
  - High legume pastures produce more foam
  - Heavy foam traps gasses
Lactic Acidosis

• Cause:
  – Increase grain in ration too fast or by too much

• Symptoms:
  – Poor performance, founder (laminitis), rumen function quits, death
Colic

- **Cause**
  - Internal parasites, blockage, twisted gut
- **Symptoms**
  - Abdominal pain
- **Best prevention is parasite control and proper feed and watering**
Enterotoxemia
(over-eating disease)

• Cause
  – Toxin produced by clostridium perfringens bacteria that grow when fed high energy feeds or lush pastures

• Symptoms
  – Sudden death
  – Can be prevented by vaccination
Founder (laminitis)

- Cause
  - Overeating grain, digestive disturbances, lush pasture
Founder (laminitis)

- Symptoms
  - Extreme pain, reluctance to move, excessive hoof/toe growth
Grass Tetany (grass staggers)

- Cause
  - Low blood Mg and in many cases low blood Ca
  - Cattle grazing on lush grass pastures in latter stages of gestation or early lactation
Grass Tetany (grass staggers)

- Symptoms
  - Nervousness, staggering, convulsions, coma and death
Ketosis

- **Cause**
  - CHO- low blood sugar
  - High energy demand pulls down fat reserves rapidly

- **Symptoms**
  - Loss of appetite, acetone (sweetish chloroform-like smell) odor from milk, urine and breath
Liver Abscesses

• Cause
  – High concentrate rations

• Symptoms
  – Symptoms include reduced feed intake and gain
  – Can be prevented with antibiotics
Parakeratosis in swine

• Cause
  – Zn deficiency and excess Ca in ration or deficiency of essential fatty acids

• Symptoms
  – Elephant-hide appearance to the skin of feeder pigs
**Parturient Paresis**  
*milk fever, hypocalcemia*

- **Cause**
  - Low blood Calcium
  - Usually occurs within 72 hours following parturition
  - Ewes in the latter stages of gestation

- **Symptoms**
  - Loss of appetite, nervousness, collapse, head turned back toward flank
Pregnancy disease of ewes

• Cause
  – Ewes carrying twins or triplets in the last 6 weeks of gestation
  – Insufficient CHO - low blood sugar

• Symptoms
  – Ketosis in sheep
Night Blindness

• **Cause**
  - Vitamin A deficiency

• **Symptoms**
  - Roughened hair and scaly skin with mild deficiency
  - Prolonged deficiency leads to poor vision in dim light and eye ulceration
Nitrate poisoning

• Cause
  – Excessive levels of nitrate plant material

• Symptoms
  – Bluish coloration of membranes, staggering, shortness of breath and death
Pine Needle Abortion

• Cause
  – Pregnant cattle consuming ponderosa pine needles

• Symptoms
  – Abortion of pregnant cows or birth of weak calves
Prussic Acid Poisoning

• Cause
  – Excessive levels of prussic acid
    • Primarily in sorghum family

• Symptoms
  – Foaming at mouth, rapid respiration rate, staggering, spasms and sudden death
Urea toxicity

- **Cause**
  - Consumption of excessively large levels of urea (NPN)

- **Symptoms**
  - Nervousness, excess salivation, muscle tremors, respiratory difficulty and tetanic spasms
White muscle disease

• Cause
  – Nutritional muscular dystrophy
  – Se and Vitamin E

• Symptoms
  – Called “polymyositis” in foals