

RUMINAL ACIDOSIS

also called grain overload or grain poisoning

Acidosis is a serious digestive issue that occurs when sheep and goats consume too much grain or other rapidly fermenting carbohydrates, resulting in an overproduction of acid in the rumen ($\text{pH} < 5.5$). It is seen most often in feedlot animals and lactating or pregnant females who have seen rapid changes in their diet. It is unlikely to occur in extensive grass-based production systems. The degree of acidosis can vary from simple cases of indigestion to very serious illness, with poor prognosis. Sudden deaths are not uncommon.



Cause

- Accidental access to grain
- Introduction of concentrates too quickly (rumen microbes need time to adjust)
- Sudden change in diet
- Lack of fiber in diet
- Improper ration formulation
- Mixing errors
- Excessive amounts of grain in diet

Symptoms

- Sub-clinical (no one notices)
- Scours (diarrhea)
- Depression
- Anorexia
- Dehydration
- Abdominal pain
- Teeth grinding
- Lack of rumination
- Respiratory distress
- Incoordination
- Recumbency
- Bloat
- Death (sometimes sudden)

Treatment

Mild cases

- Remove grain source
- Provide roughage
- Oral buffering agents, e.g., sodium bicarbonate or milk of magnesia

Severe cases (Vx)

- Fluid therapy
- Antibiotics
- Rumen lavage or rumenotomy
- Supportive care

Prevention

- Less grain
- Avoid sudden changes in diet
- Gradual introduction of grain over a period of days
- Monitor feed intake
- Include long fiber particles in diet
- Consider buffers
- Supplement diet with direct-fed microbials