NECROTIC ENTERITIS

- A problem in broilers.
- Has become prevalent in all broiler producing areas since about 1966.
- The introduction of ionophore coccidiostats has almost eliminated the disease.
ETIOLOGY

- Unknown for sure
- High energy feeds (broilers)
- Probably a combination of events including sub-clinical coccidiosis and *Clostridium perfringens*
- Maybe gut stasis leading to an anaerobic environment.
Cl. welchii
  +
Opiates
(gut stasis)
  +
Chalk
(bulking agents)

Lesions of Necrotic Enteritis
COURSE OF DISEASE

- Affected birds die quickly
- If untreated, several weeks
- After treatment, usually abates in 12-48 hours.
- May re-occur up to 3 times in one growout
MORTALITY

- If untreated maybe up to 20%.
- If treated early less than 2%.
METHOD OF SPREAD

• Probably by humans, or may be normal soil organism that has flourished in built-up litter.
• Will re-occur in infected house.
CLINICAL SIGNS

- Ataxia, "creepers"
- Water filled crop
- Birds show intoxication
- Usually seen first time at 3 weeks of age
Ataxia, water filled crop
POSTMORTEM LESIONS

• Extreme dehydration
• Dark congested liver
• Entire mid and lower small intestine have "cooked" appearance. Mucosa looks like a "dirty turkish towel". No liver lesions as seen with ulcerative enteritis
• Water in crop
Dehydration, water filled crop
Dehydration, water filled crop
Congested liver
Mucosal lesions
Mucosa
Mucosa
Intestine
BIOLOGICAL TEST

QUAIL

Used for biological testing of this pathogen.

- Homogenized suspect gut. Results in 72 hours.
  
  50% suspension per OS

- Necrotic enteritis + quail = 0

- Ulcerative enteritis + quail = disease
TREATMENT

TREAT IN DRINKING WATER

- Bacitracin - 1/4 - 1/2 gm/gal - 4-5 days
- Pen. Strep. - high level - 4-5 days
- Streptomycin (strep-sol) works best
- Response to treatment can be used as a diagnostic tool.
TREAT IN FEED

CHICKENS:

• Bacitracin only mildly effective.

• Tylosin works well but is expensive.
PREVENTION

Low continuous levels of antibiotics:

- Bacitracin - 50-100 g/ton in feed for chickens, continuously
- Lincomycin
- Virginiamycin
- Ionophores such as monensin seems to have some effect against N.E.
- Disease much reduced in occurrence since Coban (Monensin) became a commonly used coccidiostat.
- Apply salt to flooring at 60 lbs./1000 sq. ft.