

# Coccidiosis

Compiled by

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- Coccidiosis of Sheep & Goats is a protozoan infection
- The disease is **worldwide** in distribution
- Caused by many species of Eimeria
- Organism is host specific
- No cross immunity is recorded
- It is fatal diarrhetic disease of **1 - 6 months** age
- The disease is clinically associated with dysentery, reduced growth and **infrequent deaths**
- **Older Sheep / Goats serves as sources of infection for the young**
- **Oocyst excretion is at the maximum around the weaning period and shows a steady decline afterwards due to a strong immunity**
- Coccidiosis is exhibited with
  - ✓ **diarrhoea** ( Clinical )
  - ✓ **Poor weight gains** ( Subclinical )
- **Fly strike and secondary bacterial enteric infections may accompany coccidiosis**
- **Predisposing :**
  - Intensive grazing areas and feedlots
  - Ration change
  - Crowding stress
  - Severe weather
  - Contamination of the environment with oocysts from adults
- **Signs**
  - ✓ Diarrhea ( sometimes containing blood or mucus )
  - ✓ **Straining for defaecation**
  - ✓ Dehydration
  - ✓ Fever
  - ✓ In appetite
  - ✓ **weight loss**
  - ✓ anaemia
  - ✓ **wool breaking**
  - ✓ Death



▪ **Diagnosis :**

1. Clinical signs
2. Epidemiological history
3. Post mortem findings
4. Faecal test

▪ **Faecal test :**

- ✚ Oocysts are prevalent in faeces of Sheep/Goat of all ages
- ✚ Not all Eimeria are pathogenic, even though large numbers of oocysts are present in faeces
- ✚ **Coccidiosis cannot be diagnosed based solely on finding oocysts in faeces**

✚ **FEC :**

- a. Faecal samples taken from a mixture of ten healthy and affected animals in the group are be used for assessing FEC of pathogenic coccidia oocysts
- b. Peak oocyst counts of **>100,000/ gram** of faeces have been reported in 8 to 12 week old lambs/kids that appeared **healthy**
- c. **Diarrhea** with oocyst counts of a **pathogenic species** of **>20,000 / gram** is characteristic of coccidiosis

▪ **Post mortem findings**

- Pale carcass
- Ascites
- Increased pleural fluid in the chest cavity
- The small intestine : inflamed, oedematous with thickened walls.
- There were **small white foci** evident in the intestinal wall approx 1-2 mm in diameter (see pic)
- Intestinal lymph nodes appeared swollen.
- **Small white foci** evident in small intestine wall (see arrows)
- Gross changes of advanced chronic coccidiosis in a lamb.
  - ✓ Cerebriform pattern of projections and depressions on the serosal surface of the intestine is observed ( formalin fixed )



- ✓ Affected mucosa of ileum is thickened due to papillary hyperplasia of epithelium and adenomatous-like ( Pseudoadenomatous ) changes ( formalin fixed )

- **Control :**

- Hygiene
- Proper spacing in shelter
- Using anti-coccidials as preventive

## Prophylaxis

- ✚ **New born care :**

- Use of Coccidiostats starting from **Creep feed** from **4 -20 weeks**
- Use of Coccidiostats for **28 consecutive days** beginning a few days after lambs/Kids are introduced into **susceptible environment**

- ✚ **Pre delivery care :**

- A concentrated ration containing **Monensin** at 15 grams /Ton feed can be fed to Ewes/Does from 4 weeks before delivery until weaning. **The toxic level of Monensin for lambs is 4 mg / kg.**

- **Treatment :**

Once coccidiosis has been diagnosed, **treatment is not effective**, but **severity can be reduced** if treatment is begun early

- Sulfaquinoxaline in drinking water at 0.015% concentration for 3–5 days may be used to treat affected lambs/Kids.

**Group treatment is advised**

*Furazolidone @ 10 mg / Kg , Sulfadimidine @ 100 mg / Kg and Amprolium @ 55 mg / Kg may be recommended to effectively treat coccidiosis.*

- Preventing repeated reinfestation : by frequent rotation of pastures for parasite control helps control coccidial infection.

- **Immunity :** However, when lambs/Kids are exposed to infection early in life as a result of infection from the mothers, a solid immunity usually develops and problems are seen only when the stocking density is extremely high.