

## Coccidiosis in Cattle

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Coccidiosis, also known as black scours, is a common problem in weaner cattle. It is a parasitic infection which can affect all domestic animals. There are many species of coccidia, and most types are specific to host animals. Eleven species have been identified as affecting cattle in Australia. However, only two are thought to cause disease in cattle - *Eimeria zuernii* and *E. bovis*.

Coccidiosis is seen in weaners of all ages, up to 250 kg live-weight. It usually occurs soon after weaning. The profuse, dark, foul diarrhoea results in dirty tails and hindquarters. Once an animal becomes badly dehydrated and goes down, it will often die. Such an animal should be considered for euthanasia.



**Affected weaners have their tails and hind legs stained by diarrhoea**

### CLINICAL SIGNS

The incubation period can be between 16-30 days. The coccidia live within the cells lining the animal's gut and during their life cycle, cause damage to the cells. This results in the following clinical signs of the disease when too many organisms are present:

- sudden onset of severe, foul-smelling diarrhoea which may be blood-stained – and have either a dark, tarry stain or fresh, red clots - and may also contain shreds of mucous
- straining
- dehydration
- anaemia
- decreased appetite.

Recovered animals can have a long convalescent period, with poor weight gain and feed consumption.

Animals may recover from an infection without treatment; others may be infected but not show any signs of disease. They develop immunity to that species of coccidia.

The parasite is spread by oocysts (a stage in the life cycle of coccidia) passed in the faeces, which are then ingested by another animal. Warm, moist conditions favour the spread of coccidia. The spore stage of the parasite is very resistant and it can survive in that stage in any environment for a long time.

Factors which predispose to an outbreak of coccidiosis include:

- age - it usually occurs in **calves or weaners** (which have no immunity)
- **stress** such as weaning, cold weather or inappropriate weaning diets
- weaning light-weight calves
- **confinement** in small areas such as yards or small paddocks
- feeding on the ground or in troughs which can be **contaminated by faeces** (also applies to water troughs).

Faecal samples may have over 5000 oocysts/g of faeces.

## DIAGNOSIS

The disease is confirmed by the submission to the veterinary laboratory of fresh faecal samples from about 10 animals in separate containers. There are a number of other causes of diarrhoea (e.g. worm infestations, bacterial and viral infections of the gut), so it is worthwhile confirming the cause of the problem. Coccidiosis is a more common cause of problems than worms in the Northern Territory.

## PREVENTION

The disease can be easily prevented by feeding a medicated ration or supplement containing an ionophore additive, monensin (Rumensin®, Bovatec®, and Posistac®). This is the recommended practice if you are early weaning or holding weaners in yards on feed for more than a week. If feeding weaner pellets, check the ingredients on the manufacturer's label. There is no vaccine for coccidiosis.

## TREATMENT

If an outbreak occurs, affected animals should be separated from the others. Overcrowding should be reduced and feed and water troughs should be raised high enough off the ground to prevent contamination with faeces. Electrolytes can be added to the water. Medicated feed should be provided. It is essential to provide a high quality, highly digestible feed suitable for the age/weight of the animals to ensure the best possible nutrition.

Monensin should be used as a feed additive at the rate of 10-20 mg per head per day. Proprietary brands of feed or supplement containing monensin can be used, or it can be added to a home-mixed feed. Care must be taken with monensin and feeds containing monensin, as it is **toxic to humans and horses**. Thorough mixing and even distribution through feed is essential. There is no withholding period for monensin but the manufacturer's directions should be followed closely.

Once a calf has developed severe scours, successful treatment is very difficult. Drenching with electrolyte mixtures will reduce dehydration. Sulfonamide antibiotics can be used at certain stages of the disease, often in combination with trimethoprim. A home-made **electrolyte mixture** can be made up as follows:

- 1 teaspoon of table salt
- ½ teaspoon of baking soda
- ½ cup (125 mL) of glucose
- 1.2 litres of water.

## RECOMMENDATIONS

- Confirm the disease.
- Routinely use medicated feed or supplement for weaners, particularly in times of stress. Always use it in calf-rearing and weaner feed-lotting operations.
- Manage an outbreak with medicated feed or supplement, and good nutrition.
- Consider intensive treatment for severe cases - such as drenching with electrolytes or, if that is not possible, use euthanasia.
- Consider changing weaner handling locations if you have suffered an outbreak.

Advice and diagnosis can be obtained from your local primary industries Regional Office.

Please visit us at our website:

**[www.nt.gov.au/d](http://www.nt.gov.au/d)**

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