

CALVING EASE

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Coccidiosis and Young Calves

MYTH: We don't have to worry about coccidiosis until calves are three weeks old.

When does the sequence of events that establish coccidiosis in a calf start? When coccidia eggs or oocysts enter a calf's mouth. Most of our calves live in environments where exposure to the coccidia eggs is constant. That means some eggs or oocysts are ingested daily. This daily exposure provides a constant supply of fresh infective oocysts. We do not have an exact minimum number of oocysts ingested needed to cause coccidiosis. However, on-farm experience suggests that not many oocysts are needed to cause calf health problems and depressed growth rates.

The small intestine provides an ideal environment for these oocysts to break open. Some oocysts may rupture within a day. Others may take up to five days to do so.

What happens when the oocysts break open? They release huge numbers of the parasite in the form called sporozoites. They invade the cells that line the inside of the intestine. These are really bad guys!

Over the next week or so these bad guys grow into many, many more infective cells. The multiplication rate is well over 100,000 for each original parasite that invades a small intestine cell.

What happens next? The parasite cells migrate into the large intestine. There they damage more intestinal cells and multiply in much greater numbers. This happens roughly eleven to eighteen days after the original oocysts were eaten.

Is the myth true or false? We say false because coccidia begin to damage the small intestine within the first few days after the oocysts are eaten or drunk. It has been estimated that nearly ninety-five percent of

coccidia infections are subclinical. That is, we do not observe the obvious clinical symptoms of bloody diarrhea.

MYTH: There is nothing we can do to prevent coccidiosis until calves begin eating calf starter grain.

Most calf raisers include a chemical in their calf starter grain called a coccidiostat. A coccidiostat suppresses the growth of coccidia in calves' intestines. A few coccidia escape and grow. This is not bad since a low level of infection stimulates natural immunity to that particular strain of coccidia. When a calf is eating a large enough quantity of starter grain this method works well. With many calf starters this means nearly two quarts or two pounds of grain.

How can we suppress coccidial growth prior to the time when calves

eat enough starter grain to do that job effectively?

The milk or milk replacer is the only other efficient way to get the coccidiostat into calves.

The products we know about that are currently available on the market are listed in the table below. When used according to label instructions provided by the manufacturer they all effectively control coccidiosis.

Corid may be purchased in one gallon containers and added to milk or reconstituted milk replacer. Milk replacer is available medicated with Deccox or Bovatec. Deccox – M, a dry powder, may be added to milk. Liquid Bovatec, marketed as Calf Pro, may be added to milk. Calf Enhancer, marketed by Advanced Agr. Solutions, is a liquid form of Rumensin that is used by some producers.

Scientific name	Product name	Manufacturer
amprolium	Corid	Merial
decoquinate	Deccox and Deccox – M	Alpharma
lasalocid	Bovatec	Alpharma
monensin sodium	Rumensin	Elanco

If you know of someone that doesn't currently receive **Calving Ease** but would like to, tell them to **WRITE** to **Calving Ease**, 11047 River Road, Pavilion, NY 14525 or to **CALL** either 585-591-2660 (Attica Vet Assoc. office) or 585-343-8128 (Offhaus Farms Office) or **FAX** (585-591-2898) or **e-mail** sleadley@frontiernet.net or pams91@2ki.net. A limited number of back issues may be accessed on the Internet at www.calfnotes.com and clicking on the link, Calving Ease.