



Dawson Creek Veterinary Clinic

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Coccidiosis

Coccidiosis is a disease seen mainly in young calves (lambs and piglets may also get it) caused by a parasite that lives in the intestines. The parasite is species specific so sick calves can't make pigs sick, etc.

Typically in the Peace area, we see calves show clinical signs either as nursing calves between 1-3 months of age or in weaned calves that have been put into a feedlot situation and are experiencing stress (weaning, hauling, bad weather, mixing with other calves, etc).

Sick calves usually show signs of diarrhea, often with blood in it and may also be straining a lot and develop rectal prolapses. Occasionally calves can also show neurologic symptoms as a result of the disease.

It is important to understand the life cycle of the parasite, in order to understand and implement effective prevention plans and treatments.

The parasite is shed as an oocyst (egg) in the manure from an infected cow. Within that oocyst forms 8 sporozoites (little bodies). Another animal ingests the oocyst (in feed or water that has some manure contamination) and the oocyst "hatches" releasing the 8 sporozoites. These little gremlins get into cells within the intestinal lining and start replicating and releasing hundreds of thousands of offspring called merozoites, each of which in turn enter a cell and produce more merozoites, damaging the cells in the process which results in diarrhea. It doesn't take long for there to be extremely large numbers of merozoites and damage to the intestinal lining. Eventually male and female sex cells are produced, they mate and produce oocytes (eggs) that are passed out in the manure. It can take as long as 3 weeks between when the animal ingests the oocyst to when they start to shed the parasite and show clinical signs, which is why we typically don't see this disease in calves less three weeks of age. Providing the animal survives this period of reproduction and damage to their intestine, they will develop immunity to the parasite and the recurrence of disease is very unlikely.

This can be a significant disease in beef herds in the area and can result in death of calves or just a failure to gain or thrive. As with most diseases, prevention is more important and effective than treatment. Historically, we have recommended feeding Bovatec C® or Rumensin® to beef cattle for 3 weeks prior to calving to decrease the shedding of the oocysts from the cows, which in turn results in the calves being exposed to less coccidia. Unfortunately with strict CFIA regulations, it is increasingly difficult for clients to purchase Bovatec C®. Pellets can be purchased contained Rumensin and are effective in the control of this disease. Alternatively, a medication called toltrazuril can be given by mouth to calves during their first week of age. This drug is active against the multiplying intracellular form of the coccidia which results in prevention of the disease.

For more information on this product, contact the clinic. On top of this good calving ground management and nutrition is important, as it is in all cases of scours in calves. Good nutrition ensures good quality colostrum in the cows and strong immune systems that are capable of handling infections in the calves. Good calving ground management, such as adequate bedding, good drainage, and not overstocking, helps to decrease the amount of manure the calves ingest when they are born or are nursing which reduces the amount of infectious agents they get into their intestines.

As far as treatment goes, it can be difficult. There are medications (such as amprol) that can be put in the feed or water or that can be given directly by mouth to affected cattle. It is also important to support the calves with electrolytes and fluids to prevent dehydration. Unfortunately once the bloody diarrhea shows up the intestines are already damaged so treatment isn't as effective as prevention. For more information on treatment of coccidiosis, please contact a veterinarian.