

This parasite may be stealing your profits

Dr. Anita Hellquist

As calving season wound down at the end of April many producers were looking forward to some balmy spring weather. Having made it through the first two or three most vulnerable weeks, their hope was to reduce the risk of disease by getting the cattle spread out on pasture.

One of the diseases which may occur at this time is a common parasite infection called *coccidiosis*. It can manifest itself in young calves at about three or four weeks of age. While scours due to coccidiosis may be a disheartening problem to battle in young calves, this disease has far-reaching effects on cattle herds throughout the year which may be overlooked. It is believed to be one of the most significant diseases in cattle in terms of economic loss.

A problem might first be seen as several cases in one-month old calves. You notice some calves appearing listless, dehydrated, and not nursing well. Their rear ends are stained black, and they have bloody, foul-smelling diarrhea. Your veterinarian may do several fecal samples and find large numbers of oocysts in some of them. These are the infective stage of the parasite called *coccidia* (*Eimeria*). It multiplies in the host's intestinal cells and causes damage to the guts. With a light infection the damage is minimal and quickly repaired. With a heavy infection, large numbers of intestinal cells rupture, causing severe damage with fluid and blood loss. Even if oocysts are not apparent in the fecal sample, your veterinarian will likely advise treatment for coccidia, since signs of illness can appear before the oocysts begin shedding.

You've treated your calves with the appropriate medication and electrolytes, and most respond and recover, although a few fail to thrive over the summer. In addition one might experience further outbreaks. Even calves on pasture can exhibit bloody diarrhea due to coccidiosis if, for example, they drink in the same crowded, muddy area, or are put out on a permanent pasture under cool, damp conditions in spring, where the infectious oocysts have overwintered. Since the immune system plays a huge role in this disease, it is not surprising that outbreaks occur when calves are stressed, and their immune systems are suppressed. Producers who wean and feed their own calves may experience an outbreak very similar to that in nursing calves, with weaned calves being depressed, having bloody diarrhea, and going off feed. A spell of extreme weather will often result in outbreaks in feedlots.

Outbreaks in young calves or feedlot animals are costly and work-intensive to treat, yet treatment cost is not the most economically damaging aspect of the disease to your operation in the long term. Many reports indicate over 95 per cent of losses associated with coccidiosis are due to subclinical disease which you don't see. While death losses do occur, and some infected calves become obvious poor doers even after recovery, it is the calves not showing signs of coccidiosis which may be the biggest problem in terms of reduced feed efficiency, inhibited weight gain, susceptibility to other diseases, and diminished returns from your calf crop.

The occurrence of clinical cases is a strong indication that preventive measures should be taken in a herd to control coccidiosis. It may be beneficial to incorporate control measures even if there is no obvious disease. The medication Rumensin not only controls the disease, but also increases feed efficiency. It is inexpensive, has no withdrawal time, and protects against bloat. While adult cows are immune to the disease, they may still be infected and contaminate the environment for young calves. Rumensin kills the cocci organism and reduces the shedding of oocysts. In combination with good management and sanitation, Rumensin is a valuable tool against this disease. In addition, Rumensin is a natural feed additive that can be used in cattle feeding rations to improve feed efficiency. It alters the rumen fermentation process, allowing more energy to be recovered from feed in a form useable to the animal. Studies with beef cows show that feed efficiency is improved five to 10 per cent when Rumensin is fed at 50 to 200 mg/head per day. For control of coccidiosis, Rumensin should be added to the adult cow's feed one to two months before calving, but to gain the maximum benefits of improved feed efficiency, it can be added as soon as winter feeding begins.

Rumensin is safe and effective for use in beef cows, bulls, replacement heifers, calves, and feedlot cattle, at approved levels. However, it is extremely toxic to horses.

The feeding rate of Rumensin will depend on a number of factors: the type of cattle you're feeding, the type of supplement, and the feed intake. Thus it is critical to work together with your feed advisor to get the right rate for maximum benefit. Ideally, Rumensin should be added as milligrams per kilogram of dry matter intake. As animals grow and feedstuffs change, adjustments must be made to ensure the level stays right.

For anyone seeking a tool to control coccidial disease in their herd, and at the same time gain the most 'mileage' from their feed in winter, it is worth considering the use of a feed additive such as Rumensin.

-- Dr. Anita Hellquist is a private veterinary practitioner at St. Paul, Alta., and a member of the Western Canadian Association of Bovine Practitioners, which co-ordinates this column. Reprinted from [Canadian Cattlemen](#) magazine, June/July 2008, page 20.