



# Vet Call

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## Coccidiosis

*For the previous two months I have written about roundworms and flukes, two types of internal parasites that can hurt cattle health and performance. The final parasitic disease that I am going to focus on is coccidiosis. This disease is caused by a small parasite that invades the cells of the intestinal tract and, if enough intestinal cells are damaged, diarrhea or bloody diarrhea can result.*

### Affected species

You may have heard of other species, including poultry and swine, that can suffer from coccidiosis. Although most animal species can be infected with coccidia organisms, the specific types that cause disease in other species will not cause problems for cattle; cattle disease is caused by cattle coccidia. Almost all cattle are infected with at least a few coccidia organisms, but problems only occur if the parasite can multiply rapidly (usually when cattle are

stressed). The stress of weaning, trucking, weather such as winter storms or mud, overcrowding, or poor nutrition can all allow individuals or groups of cattle to suffer from coccidiosis.

Recently weaned cattle, particularly if they are exposed to inclement weather or mud and are shipped to a new location, are considered to be at high risk for coccidiosis. Young suckling calves can be affected, particularly in situations with poor sanitation, nutritional stress and other causes

of diarrhea. Adult cattle that remain in the herd are usually immune to the local coccidia, but thin cows can be at risk. In addition, bringing in new cattle can cause an outbreak of coccidiosis in the new animals when they are exposed to the local coccidia — or the new animals may bring in a new species of coccidia and cause an outbreak in the original herd.

### Symptoms

The most common signs of coccidiosis are thin, watery diarrhea; diarrhea with blood; straining to defecate; a rough hair coat; and poor weight gain. In addition, some affected cattle in a group can show signs of nervous system problems such as tremors, eye twitching and convulsions. Many cattle with coccidiosis appear healthy but have decreased weight gain and feed efficiency. Mild cases that involve a few days of watery

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feces without noticeable blood during which the cattle do not become obviously depressed or go off-feed are also common. Severe cases with a week or more of bloody diarrhea can lead to a fever, going off-feed, depression and dehydration.

If the infection is mild, death is very rare. In cases that are more severe, death is fairly common due to the coccidiosis itself or other severe diseases, such as pneumonia, for which coccidiosis can increase the risk. Cattle with nervous system symptoms have a very high risk of death.

Your veterinarian is most likely to diagnose coccidiosis after examining cattle with bloody diarrhea and ruling out other problems. The organism can often be detected in high numbers in fecal samples, but this test is not always accurate because intestinal damage can occur before large numbers of coccidia are found in the feces. In addition, some cattle may have high numbers of coccidia in their feces, but be nearly recovered from the disease. They are in much better shape than cattle with few or no organisms earlier in the disease process.

### **Treatments**

A number of treatments are available for cattle suffering from obvious coccidiosis, and affected cattle should be separated from the group so they can be kept warm, dry and comfortable while being individually treated with fluids to correct dehydration and with drugs that will kill the organism. Whenever even one individual in a group has obvious signs of coccidiosis, you can assume that the rest of the group has been exposed and is likely to be suffering less obvious losses.

To prevent coccidiosis, good animal husbandry practices to improve sanitation and reduce stress are important. The organisms survive very well in the environment. It is probably impossible to completely remove them from areas where cattle live. Young animals should be kept in as mud-free an environment as the weather will allow, and feed and water should be kept off the ground as much as possible to minimize fecal contamination. To reduce stress, castration and dehorning should be done at a young age, several weeks ahead of weaning, and low-stress weaning strategies should be implemented wherever possible.

In addition to management strategies, a number of products — such as ionophores, decoquinate or amprolium — can be delivered by feed or water to groups of cattle at risk for coccidiosis to minimize the risk of severe disease. A month or more of daily intake of these preventative treatments is necessary to break the life cycle of the organism.

As with many diseases, good sanitation and animal husbandry are important to prevent and control coccidiosis. In addition, your veterinarian can recommend products to treat affected cattle and preventatives that can be used during periods of highest risk for the disease.



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