## Coccidiosis: Symptoms, Prevention, and Treatment in Sheep, Goats, and Calves

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One of the pleasures of spring is watching young animals at play. Healthy, vigorous young lambs, kids, and calves race and spring into the air. But suppose that instead of this scene, you walk out and find that your young animals look empty and lethargic, their coats are rough, and they have diarrhea. What is wrong?

It might be intestinal worms, but a more likely possibility is that the young stock are infected with coccidia. Coccidiosis is a parasite infection caused by the protozoan organism coccidia (also known by the scientific name *Eimeria*). Since immunity to the infection develops over time, young animals are more susceptible to infection and disease. It is normal for adults to harbor small numbers of coccidia without any signs of disease, and they are likely a source of infection for their offspring.

Medications that work in fighting intestinal worms will NOT kill coccidia. Therefore, recognizing coccidiosis and understanding how to manage livestock to prevent or minimize illness is important. Probably the first sign of a problem with coccidiosis is diarrhea: hindquarters and tails may be coated with manure. Along with that, animals may show decreased appetite, listlessness, weakness, and abdominal pain.

Conditions that may lead to coccidiosis include keeping young stock in conditions that are crowded, wet, or unsanitary. Animals that are under stress from bad weather, poor handling practices, weaning, illness, or poor nutrition are also more susceptible to coccidiosis. To prevent coccidiosis, make every effort to reduce stress on the animals and improve sanitation and living conditions.

Consulting with your veterinarian is necessary to devise a coccidiosis treatment program, which may include feeding ionophores, treatment with sulfa drugs or amprolium, and/or alternative treatments. Notice that some medications are used for prevention; these are coccidiostats. Other medications are treatments: coccidiacides that kill the organisms in the intestines. Be sure to follow instructions carefully when using any treatment.

Those wishing to avoid using medications, or who are raising organic animals, may choose to use natural-compound alternatives to mitigate the effects of coccidia. Options include sericea lespedeza and other condensed-tannin-containing plants, such as birdsfoot trefoil, acacia, sainfoin, panicled tick clover, pine bark, and quebracho. Conventional producers may also want to consider these natural alternatives, because overuse of conventional compounds may lead to resistance.

As with any disease, prevention is the best cure for coccidiosis. However, understanding the control measures available can help producers prevent and manage outbreaks when coccidia loads are too high and illness is manifested. Consult your veterinarian for more specific information regarding timing of treatments. Finally, notice which animals do not become ill despite equal exposure. Selecting breeding stock from those stronger animals will improve the health of the flock or herd over time and lower the contamination on the farm.

You can find more information on managing coccidia in the free, online publication *Coccidiosis: Symptoms, prevention, and treatment in sheep, goats, and calves* available from ATTRA Sustainable Agriculture Program at https://attra.ncat.org/attra-pub/livestock/livestock.html#health.