

Information from GoatConnection.com

PARASITES

Coccidiosis in Goats

By N.C. State University
Oct 31, 2002, 2:44pm

<http://jackson.ces.state.nc.us/newsletters/livestock/nov-dec97/>

Coccidiosis in Goats

Coccidiosis is an economically important disease in many species of livestock. It can be a very devastating disease in goat herds. Coccidiosis is caused by coccidia, a group of protozoan (single celled) parasites. Goats become infected after ingesting the oocyst ("egg") from the environment. Although there are several species of coccidia that can infect goats, two species are particularly troublesome: *Eimeria ninakohlyakimovae* and *Eimeria arlongi*.

Understanding the life cycle of coccidia is an important step in learning what damage they do to the host. It will also help in understanding why they are so difficult to control. Coccidia are intercellular parasites. They live and grow within the cells lining the gastrointestinal tracts of the host. The oocyst is passed in the feces of infected hosts. Oocysts must undergo a period of development (sporulation) after being passed before becoming able to infect another host. This usually takes 2-3 days. Oxygen, moisture and warm temperatures are required for development.

After sporulation occurs, the oocysts are very resistant to environmental conditions and ordinary disinfectants. Extremely dry weather and direct sunlight are the only environmental factors that are detrimental to sporulated oocysts. Moist areas out of direct sunlight, such as under feed bunks and near water troughs, can harbor infective oocyst for a year or longer. After a susceptible goat ingests sporulated oocyst, "spores" are released and enter the cells lining the intestine. In the intestine they go through several stages of development. The intestinal cells are destroyed and thousands of smaller forms of coccidia are released. These smaller forms invade and damage other intestinal cells. Eventually sexual stages are reached and new oocysts are passed into the environment. The complete cycle usually takes about 2-3 weeks.

The symptoms of coccidiosis range from loss of appetite and slight, short-lived diarrhea to severe cases involving great amounts of dark and bloody diarrhea and, in some cases, death. The severity of symptoms depends upon the number of parasites invading the intestines. Feces of sick goats contain many infective stages of coccidia. When an outbreak occurs, isolation and sanitation are key to preventing its spread throughout the herd.

Coccidia are everywhere in the environment. They can be detected by microscopically testing fecal samples from your herd. If you perform this test, chances are that it will come back positive for coccidia, meaning that they are present in your environment. The presence of coccidia in the feces of a goat does not imply that it has the disease, coccidiosis. Healthy goats have some immunity to coccidia. The most susceptible goats are very young kids and kids that are being weaned. Adult goats can develop coccidiosis if they are stressed or if they are moved into an environment that is heavily infested with oocysts. Also, coccidiosis is more of a problem in crowded conditions.

If a goat is exhibiting clinical signs of coccidiosis (diarrhea being the most common sign) there are some treatment options. These include sulfa drugs, such as sulfamethazine, sulfadimethoxine (Albon) and sulfaguanidine, tetracycline and amprolium (Corid R). Not all of these products are labeled for use in goats. Usually the treatment is given for five days. These drugs are called coccidiostats. Coccidiostats do not kill coccidia. However, they slow it down. With a heavily infected goat, treatment may not be successful, but it will help reduce the number of oocysts that are being passed into the environment.

Coccidiosis can be prevented by adding coccidiostats, such as decoquinate (Decox) and lasalocid (Bovatec) to the goat's diet. Goat rations that contain coccidiostats are available to producers who request them. This will aid in preventing an outbreak of coccidiosis. Another approach is to treat kids at three weeks of age with Albon, and treat them again in three weeks. Afterwards, use a feed with a coccidiostat. If you have horses, do not allow them to eat feed containing coccidiostats. These products are deadly to horses.

Coccidiosis is a very serious disease for goat producers. Remember to isolate and treat any animal that has coccidiosis. The best preventive measure a goat producer can take is to use a feed with a coccidiostat added. With careful management and sound preventive measures, the losses associated with this disease can be reduced to minimal levels.

<p>This article is brought to you as a service of GoatConnection.com - Khimaira Inc. Authors retain all copyrights, responsibilities and privileges thereof. This is a 'community-built' project, and we try to compile helpful information, but can offer no warranties for accuracy of information. For veterinary assistance, please seek the advice of a licensed veterinarian.</p>
