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Coccidiosis of Turkeys

- How Transmitted
- Symptoms
- Life Cycle
- Treatment & Prevention

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Coccidiosis in turkeys is considered to be a less important disease than it is in chickens. However, when considering economic loss, due to mortality alone, it must be remembered that one turkey is usually four times as valuable as one chicken. Therefore, mortality rate is a poor indication of economic loss.

At least 7 species of coccidia affect turkeys. Only 3 produce considerable pathology. Of these, Eimeria meleagridis is the most widespread. It lives and multiplies in the jejunum (the middle portion of the small intestine). Small outgrowths of the wall of the jejunum, called villi, project into the cavity of the intestine. The parasite lives and multiplies within the cells at the tips of these villi, destroying many of these cells, thus impairing the absorption of digested food material and water. The infection caused by Eimeria meleagridis lasts approximately 6 days.

Eimeria adenoeides lives in the last portion of the small intestine, as well as the ceca and the rectum. It lives and multiplies in the cells of the villi of these portions of the intestine as well as in the deep glands which lie at the base of the villi. Infections with this coccidian last approximately 5 days.

Eimeria meleagridis lives in the ceca and affects the tips of the villi of these organs. Infection with this coccidian usually last about 5 days.

Eimeria meleagridis and Eimeria adenoeides are the more harmful of the 3 species. Infection with Eimeria meleagridis causes little mortality.

Some important facts about turkey coccidia to consider:

1. The coccidia of chickens are not infective to turkeys, nor are those in turkeys infective to chickens. Two species that occur in turkeys that may also be found in Hungarian partridge. Both of these are relatively non-pathogenic.
2. Once a bird has been exposed to a certain species of coccidia it becomes immune to further attacks of that species. However --

3. Coccidiosis can occur more than once in a bird due to the other species to which it has not been exposed.

TRANSMISSION OF THE DISEASE

As with other coccidia, those infecting turkeys are transmitted through contaminated droppings from birds that have the disease. The parasites may be carried to poults in the brooder by flies, other insects, on tools, feed sacks or shoes and clothing of the operators or visitors. Feed can be contaminated if not handled properly.

Signs and Symptoms

Poults with coccidiosis are listless and sit with droopy wings and ruffled feathers. Diarrhea usually occurs; the droppings being light brown and mixed with considerable mucous. Bloody diarrhea is not common in coccidiosis of turkeys.

Life Cycle

The coccidian leaves the body of the turkey in a microscopic egg-like form known as an oocyst. Before the oocyst can infect another turkey it must undergo a process called sporulation. This takes 24 to 48 hours, depending on the species, after which it can live for months outside the bird.

When a previously uninfected turkey picks up infective (sporulated) oocysts the parasites multiply many times within the cells of the intestine, bursting these cells, thereby producing damage.

Treatment and Prevention

Treatment of coccidiosis in turkeys has been somewhat of a problem. Many drugs effective against the coccidia of chickens and larger animals are not effective against the coccidia of turkeys. Probably the most efficient compounds against the coccidia of turkeys are the sulfonamides. These include

sulfadiazine, sulfaguandine, sulfamerazine and sulfaquinoxaline. These drugs may be used as preventives at low levels but usually are not used until an outbreak occurs because of their toxicity.

Prevention of the disease involves the reduction of the parasite population and requires good management such as:

1. Adequate floor space
2. Dry and clean litter
3. Wire platforms for waterers
4. Plenty of feeders
5. Keeping visitors out of turkey runs



Coccidiosis Goes 'Round and 'Round

Unless YOU step in and stop it !

