

Bovine Coccidiosis Not Linked to Geese

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Repeatedly, SCWDS has received calls from people asking if Canada geese are a source of intestinal coccidiosis among calves. Bovine coccidiosis is a common problem that results in severe diarrhea and dehydration, particularly among dairy calves that are kept in confinement. Other clinical signs include poor appetite, weakness, emaciation, and anemia. Heavy burdens of these one-celled parasites can be fatal to young calves. Older cattle often carry low levels of infection without signs of illness.

The misconception that geese are responsible for bovine coccidiosis is partly due to the fact that goose feces tend to be apparent wherever geese congregate. Thus, when a cattle owner is informed that coccidiosis is transmitted via feces they make a quick, but erroneous, connection. In addition, the use of the generic term "coccidiosis," a word which describes illness caused by coccidia in any animal, also contributes to the confusion. The person may have already heard of coccidiosis in poultry, swine, dogs, or cats; and therefore, they assume that the disease is caused by the same agent. In truth, almost all domestic and wild animals harbor intestinal protozoan parasites of the coccidia group. i.e., parasites in the broad taxonomic Order Eucoccidiorida. However, ***the coccidia that infect calves are not the same species as those that infect geese***. There are 13 or so species of coccidia known to infect cattle, none of which are reported in geese. Of these, two species, *Eimeria zurnii* and *E. bovis*, are responsible for most cases of coccidiosis in calves; some others are much less pathogenic but may cause diarrhea. Among the coccidia in Canada geese, *E. truncata* and *E. hermani* appear to be the most prevalent and may produce pathogenic responses in geese. Not much is known about the pathogenicity of the several other species of coccidia infecting Canada geese, but none of the goose coccidia are found in bovids. This concept of host specificity generally applies for coccidia in all animals, including wildlife. Cross-over of infection tends to be limited to closely related host species.

When coccidiosis is diagnosed, cattle producers should not be concerned about geese or other wildlife as the source of infection. Infections originated from other infected, often normal-appearing cattle that were shedding egg-like coccidial oocysts in their feces. Prevention of bovine coccidiosis is based on good animal husbandry that reduces the environmental buildup of bovine feces containing the highly resistant coccidial oocysts. In particular, producers should regularly move feed and water containers and keep bedding fresh and dry in areas frequented by young calves. Cattle producers concerned about coccidia in their herds should consult with their local veterinarian for specific information on management and treatment. (Prepared by Dr. Mitch Lockhart)