

Coccidiosis - INTERPRETATION GUIDE

When species matters

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Coccidia of the genus *Eimeria* are host-specific: species that infect sheep, for example, do not infect cattle, and vice versa. More than 12 *Eimeria* species can infect cattle, but their clinical significance varies considerably by species. *E. bovis* and *E. zuernii* are among the most common and pathogenic, primarily targeting the distal ileum, cecum and colon. Other species, including *E. auburnensis* and *E. alabamensis*, are also frequently detected and are considered pathogenic, whereas most others are regarded as minimally or non-pathogenic. Mixed infections involving several pathogenic and non-pathogenic species are common.

The *Eimeria* life cycle includes an environmental phase, during which oocysts shed in feces sporulate and become infective, and a phase of intracellular multiplication within the host. This multiplication in the intestinal epithelium causes lesions and the onset of disease. In heavy infections, destruction of intestinal cells compromises mucosal integrity and leads to diarrhea, dehydration and reduced performance. Although less apparent, subclinical infections can still cause economic losses by reducing growth and feed efficiency.

Coccidiosis in cattle is endemic worldwide and can occur year-round in animals raised indoors or outdoors. Sporulated oocysts are resistant and can persist in the environment for several months. Warm, humid conditions and areas where animals gather, such as around watering or feeding points, favor oocyst accumulation and increase infection pressure. Young animals are more susceptible to disease. Repeated exposure gradually leads to the development of immunity, but exposed animals may continue to shed oocysts and contribute to maintaining infection pressure within the herd.

The significance of a positive result depends on the *Eimeria* species detected, the animal's age, its clinical status and the level of exposure. Specific identification of *E. bovis*, *E. zuernii*, *E. alabamensis* or *E. auburnensis*, four species pathogenic to cattle confirms the presence of a pathogenic species and helps distinguish it from other *Eimeria* species of lesser clinical significance.

For more information

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