

Coccidiosis in other poultry birds

Turkeys

- Only four of the seven species of coccidia in turkeys are considered pathogenic: *E adenoides*, *E dispersa*, *E gallopavonis*, and *E meleagrimitis*. *E innocua*, *E meleagridis*, and *E subrotunda* are considered nonpathogenic. Oocysts sporulate within 1–2 days after expulsion from the host; the prepatent period is 4–6 days.
- *E adenoides* and *E gallopavonis* infect the lower ileum, ceca, and rectum. These species often cause mortality. The developmental stages are found in the epithelial cells of the villi and crypts. The affected portion of the intestine may be dilated and have a thickened wall. Thick, creamy material or caseous casts in the gut or excreta may contain enormous numbers of oocysts. *E meleagrimitis* chiefly infects the upper and mid small intestine. The lamina propria or deeper tissues may be parasitized, which may result in necrotic enteritis. *E dispersa* infects the upper small intestine and causes a creamy, mucoid enteritis that involves the entire intestine, including the ceca. Large numbers of gametocytes and oocysts are associated with the lesions.
- Common signs in infected flocks include reduced feed consumption, rapid weight loss, droopiness, ruffled feathers, and severe diarrhea. Wet droppings with mucus are common. Clinical infections are seldom seen in poults >8 wk old. Morbidity and mortality may be high.

Game Birds

- The Chinese ringneck pheasant, the chukar partridge, and the bobwhite quail, extremely popular as game birds, are reared in large numbers under conditions similar to those of chickens. Losses in these birds from coccidiosis often exceed 50% of a flock.
- In pheasants, the common species are *E phasiani*, *E colchici*, *E duodenalis*, *E tetartooimia*, and *E pacifica*. Chukars are infected by two species: *E kofoidi* and *E legionensis*. Bobwhite quail are infected mainly by *E lettyae*, *E dispersa*, and *E coloni*.
- Treatment and control of these coccidia are similar to that in poultry; however, amprolium appears to be of little use.
- Monensin and salinomycin are the approved drugs for quail, and lasalocid and sulfadimethoxine/ormetoprim are the approved drugs for chukars.

Ducks

- A large number of specific coccidia have been reported in both wild and domestic ducks, but validity of some of the descriptions is questionable.
- Presence of *Eimeria*, *Wenyonella*, and *Tyzzeria* spp has been confirmed. *T. pernicioso* is a known pathogen that balloons the entire small intestine with mucohemorrhagic or caseous material.
- *Eimeria* spp also have been described as pathogenic. Some species of coccidia of domestic ducks are considered relatively nonpathogenic.
- In wild ducks, infrequent but dramatic outbreaks of coccidiosis occur in ducklings 2–4 wk old; morbidity and mortality may be high.

Geese

- The best known coccidial infection of geese is that produced by *E. truncata*, in which the **kidneys** are enlarged and studded with poorly circumscribed, yellowish white streaks and spots.
- The tubules are dilated with masses of oocysts and urates. Mortality may be high.
- At least five other *Eimeria* spp have been reported to parasitize the intestine of geese, but these are of lesser importance.