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## Introduction

*Ascaridia galli*, the large round worm of poultry, is found in chickens, turkeys, ducks and geese whose intestines it inhabits. Sometimes this worm undergoes aberrant migrations with the result that it is occasionally found in the oesophagus, crop, gizzard, body cavity, oviduct and, even, in the egg.

## The parasite

*A. galli* are large, thick, whitish-yellow worms and their mouth has three large lips. The male is 50-75mm long and the female is 60-120mm long.

## Life cycle

This worm has a simple life cycle. Infective eggs hatch in the bird's proventriculus or duodenum and the second stage larvae are to be found in the mucous layer of the duodenum for the first few days after hatching. A proportion of these larvae then penetrate the intestinal mucosa and moult to third stage larvae. By the 17th day these larvae have returned to the duodenal lumen where they become fourth stage larvae and, eventually, by day 28-30 they become adult worms.

*A. galli* eggs can be consumed by grasshoppers or earthworms where they can remain infective for chickens without the larval stages developing.

Under ideal conditions of temperature and moisture, eggs in droppings become infective within 1-4 weeks. Embryonated eggs have been known to remain viable for up to 65 weeks.

## Disease

*A. galli* infection causes depression proportionate to the worm burden. Weight depression can occur, which may be accompanied by loss of blood, increased urates, shrunken thymuses, retarded growth and mortality.

In severe infestations intestinal blockage can occur. *A. galli* infections can have a synergistic effect with other conditions, such as coccidiosis and infectious bronchitis.

After three months of age chickens show considerable resistance to *A. galli* infections.

The nutritional status of the bird influences its immunity against *A. galli* with diets high in vitamin D and the B vitamins.

## Worms in eggs

Infection with this worm can have an unusual outcome – the presence of a worm in a hen's egg. This arises when a worm migrates from the intestines, across the cloaca and up the oviduct where it becomes incorporated in the egg as it passes down the oviduct.