



Game Bird & Poultry Health Fact Sheet

Gape Worms

What is it?

Gape Worm is a parasitic worm which lives within the trachea (wind pipe) of many wild birds and poultry. It is so named because of the 'gaping' action it causes as a result of the birds having difficulty breathing.

In particular, gape worms are an extremely common problem in game birds where infection and re-infections are common.

The life cycle of the worm can be direct which means the adult worm within the bird lays eggs which become infective in the environment. These infective eggs contain larvae which can hatch. These larvae can then be directly ingested from the contaminated environment by the same (re-infection) or other birds.

To complicate things, there is also an indirect life cycle which involves the earth worm or snails and slugs as an indirect host. It is possible that when the gape worm egg hatches and releases its larvae, the earthworm/snail/slug takes up these larvae. The larvae is able to survive within this indirect host for years!! Once the earthworm is ingested by birds, the larvae is release and sets up an infection within the trachea.

A further feature the gape worm has, which ensures its survival is that the male and female worm are in permanent copulation! It only takes three weeks from the bird eating the egg/larvae for the worm to become an adult worm producing more eggs. This means their reproduction is constant, and rapid, making infections common and recurring.

Symptoms / Clinical Signs

- Difficulty breathing as the gapes inhabit the trachea and their physical presence inhibits breathing
- Outstretched neck with a 'gaping' beak, this is an attempt of the bird to inhale as much air as possible
- Snicking/sneezing noise as the bird attempts to clear the worm and shaking of the head
- Poor health and ill thrift, as gape worms will lower the immune system making the bird more susceptible to other conditions
- Death, due to asphyxiation

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Diagnosis

The classical 'gaping' and 'snicking' of birds are indicative of gape worm. There are however other diseases which can cause respiratory signs similar to this so confirmation of infection is important.

Post mortems are a definitive way of diagnosing the infection. The worm is clearly visible to the naked eye (as shown in the pictures) and post mortem submissions should include any dead birds and culls of those showing clinical signs or ill health.

It is also possible, where post mortems are not an option, to analyse faeces samples to look for the presence of worm eggs. Fresh faeces should be collected and submitted to your vet for analysis. Take care with interpretation though as it is possible to obtain false negative results as faeces could be collected which do not contain the worm eggs. Your vet will process the faeces and examine it under a microscope in order to check for the presence of worm eggs.



Treatment

There are a limited amount of wormers licensed for use in poultry, and only one licensed in game birds.

Flubenvet is commonly used in feed which is licensed in both of the species above. Administering wormer via feed is the best way to treat your birds to ensure there is adequate uptake of wormer, especially where there is access to other water sources such as streams or puddles!

If this is not possible, we are able to administer wormer in the water, although this may be 'off license' in certain species meaning that we are prescribing it under a license and there will be an increased mandatory meat and egg withhold for those animals.

It is vital, especially for this worm that a specific worming protocol is designed appropriate for your birds. We commonly keep our poultry and game birds in confined or limited spaces where ingestion of worm eggs is more than likely and therefore the chance of re-infection is a matter of course.

Prevention

- Specifically designed worming protocol appropriate for your species and set up, this should be decided in conjunction with your vet
- Lowering stocking densities in order to minimise the chance of re-infection
- Providing cleanable feeders and drinkers which are routinely cleaned and are off the ground (to limit contamination)
- Keeping grass low to allow UV light to destroy worm eggs. It is very difficult to destroy worm eggs as they favour damp conditions. High temperatures, prolonged frost, drought and sunlight naturally destroy worm eggs however we do not consistently experience these enough in the UK!
- Rotation of areas where the birds are kept from year to year as it is possible for the larvae to survive within earthworms/ slugs and snails for years
- Limit contact where possible with wild birds as these can carry the worm
- Keep the ground as dry as possible, Ultra Dri is a very useful product to use where there are wetter areas
- Try to fence off or limit access to wet areas or other water sources
- Maintaining the gut health of birds in other ways to help them cope with an infection if or when it should occur, as gape worm will drag the birds health down and make them more susceptible to other disease. This can be done by administering products such as Aqua Acid and Nutrimix in poultry or Quill Boost Tonic in game birds. The addition of Hydrocare into the water to sanitise it also helps to improve gut health

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