Tapeworm

Tapeworms are a significant threat to the health of horses, with around:

- One in three of horses hosting the tapeworm parasite
- One in five cases of colic attributed to tapeworm
- One in five horses with colic being euthanised

What are Tapeworms?

Adult tapeworms live in horse's intestines. Each adult tapeworm comprises a:

- Head (the scolex) that has hooks that allow the tapeworm to attach to the wall of the intestine where they live off food that the horse ingests
- Neck
- Body (the strobila) that consists of a varying number of segments (proglotids) that develop from the neck. As new segments develop, older segments are pushed back. Tapeworms are hermaphroditic; each segment has two sets of male and female reproductive organs, which will fill each segment with fertile eggs as the segment is pushed back from the neck. When the segment is full of eggs, it detaches from the adult tapeworm and passes into the faeces.

How do Tapeworms cause colic?

There are three species of tapeworm known to affect horses:

- **Anoplocephala perfoliate** (Figure 1), the most common in the UK, is around 8cm long and 1.5cm wide. It is usually found at the junction between the small and large intestine (ileocaecal junction) where the caecum is connected (Figure 2). The cecum is a one metre long, sock-shaped part of the large intestine that contains bacteria that is used to digests plant fibre. Ingested material from the small intestine empties into the cecum through a valve, where it is mixed with bacteria, before then emptying through a second valve into the large colon. When many Anoplocephala perfoliate attach, mechanical obstruction (ileal impaction) of the small intestine and/or physical damage to the ileal tissue (for example, ulcers at the tapeworm attachment sites) can occur. Both can

Figure 1 - Anoplocephala perfoliate

lead to tapeworm-associated colic.

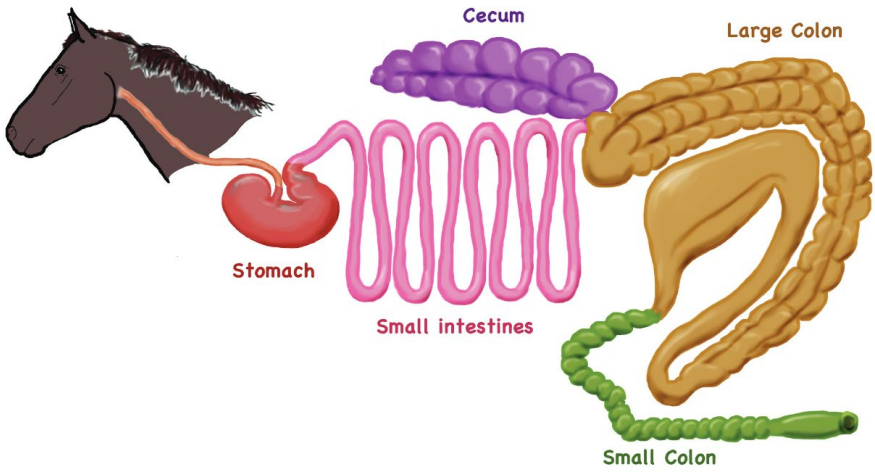

Figure 2 - Simplified Diagram of the horse's digestive system

- **Anoplocephala magna** and **Anoplocephaloides mamillana** are found generally in the small intestines and, in addition to being less common in the UK, are believed to pose less of a threat.

What is the life cycle of the Tapeworm?

Horse tapeworms use an intermediate host, the oribatid mite, to spread (Figure 3). The oribatid mite ingests the tapeworm eggs deposited in pasture through faeces. After the eggs hatch, the immature tapeworms migrate out of the mite's intestine and enter the tissue of the mite, where they are enclosed in a cyst within which they develop. The horse eats the mite while grazing or from hay and straw. The horse's digestive system breaks down the mite, releasing the immature tapeworm and allowing it to migrate within the horse's intestines to its attachment site. Tapeworms are relatively slow growing and take months to reach maturity.

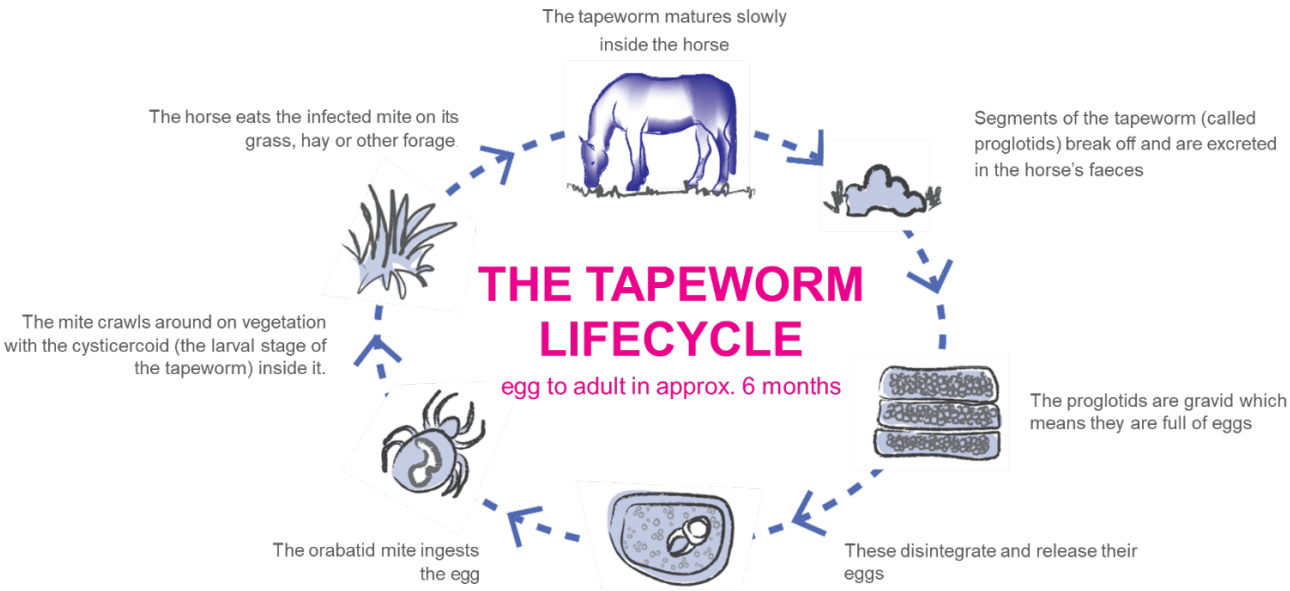

Figure 3 - The Tapeworm Lifecycle

None of the three species can infect other animals or humans. Similarly, horses cannot get tapeworms from dogs, cats, or wildlife.

How do I check my horse for Tapeworm?

Tapeworm in horses can be detected through either a:

- EquiSal Tapeworm Saliva Test, which can be purchased from reputable laboratories. The saliva test can be performed by the horse owner. A swab is taken from the inside of the horse's mouth (instructions on how to do so are included with the kit) which is then sent to the laboratory by post. Typically, results are released within a few working days of the laboratory receiving the swab.
- Blood Test, where blood is taken by a vet for testing.

The Saliva Test is normally cheaper than the Blood Test because there is no need for the Vet to be involved.

Both tests check for the presence of antibodies that are produced by the horse's immune system as a response to presence of tapeworms. For either test to be effective, the horse should not have had an anti-tapeworm treatment within the preceding 4 months.

Testing for tapeworms cannot be done through a faecal worm egg count (FWEC).

You should test your horse for tapeworms in the Autumn (Sep/Oct) and Spring (Mar/Apr).

How do I treat my horse for Tapeworm?

Worming is only required if the test results indicate that infection is present. Evidence-based treatment saves the unnecessary use of chemicals, reducing the likelihood of a build-up in resistance to treatment drugs. If your horse is found, through testing, to have tapeworms, there are two chemicals that are licensed as a treatment:

- Praziquantel
- Pyrantel pamoate delivered in two doses.

These drugs may be combined with further drugs to treat, in one dose, other parasites, such as redworm, ascarid and pinworm. It is recommended, therefore, that you discuss treatment with your Vet to ensure that the correct drug or drug combination is prescribed.

How does pasture management help with Tapeworm control?

Effective pasture management can reduce the risk of tapeworm infection. It is recommended that:

- Droppings are picked up at least twice weekly, particularly during warm weather
- The muck heap is located away from areas where horses graze
- Cross-grazing with cattle or sheep is encouraged where possible. Cattle and sheep will consume infected oribatid mites, reducing the number that are ingested by and can infect horses

- Pasture is not overstocked or overgrazed. Where possible, allow 0.4 to 0.6 hectares (1 to 1.5 acres) of grazing per horse. If overstocking is unavoidable or intended (for example, to aid in weight management), droppings must be picked up more frequently than twice weekly
- Pasture is not harrowed to spread droppings, as this just spreads the tapeworm eggs across the entire pasture