



# FACTSHEET

## WORMS AND WORMING

Worms are endoparasites which spend some or all of their lifecycle within the horse. In small amounts they can have little or no ill affect on the horse but as the burden increases so does the effect on the horse ranging from diarrhoea, weight loss, colic and in severe cases death.

### TYPE OF WORMS

There are many varieties of endoparasites but the most common types are discussed below. The majority of endoparasites have a similar lifecycle outlined as follows:

1. Eggs passed out in droppings
2. Eggs develop into larvae on droppings, going through 3 stages.
3. Stage L3 is the infective larvae, these larvae move onto the grass ready to be ingested.
4. The ingested larvae move through horse to intestines where they develop into adult worms and lay eggs.

### Small redworms/ Strongyles

Most common worm

Up to 2.5cm long, thin and red in colour.

Prepatent period: 6-12 weeks.

Adults live in colon and caecum and they feed attached to the intestinal lining.

When these worms reach the 3<sup>rd</sup> stage of larvae (L3) they burrow into the walls of the intestine and become 'encysted'. Around November the encysted larvae become dormant known as 'inhibited' or 'hypobiosis'. Problems can occur in late winter/early spring as the temperature rises, all encysted larvae emerge at once, which can cause colic, diarrhoea and severe illness.

### Large Redworms/Strongyles

Adults are dark red in colour.

There are three major species of migratory large strongyles:

***Strongylus vulgaris*, 1.5-2.5cm. *Strongylus edentates*, 2.4-4.5cm. *Strongylus equinus* 2.5-5.0cm**

Prepatent period: between 6-12 months

The 4<sup>th</sup> stage larvae (L4) can cause damage to the arterial walls, creating blood clots (thrombi), damage to the intestinal walls and lack of blood flow to the gut can cause minor to severe colic.

### Parascaris Equorum, 'Roundworm'

Large and white in colour, may reach 40cm in length.

Prepatent period: 10-16 weeks.

The eggs are able to survive in the environment for several years. Migrating larvae can cause damage to the liver and lungs and pneumonia in heavy infections.

They affect younger animals under 2 years. Horses acquire immunity at approximately 18 months of age.

## Tapeworms

*Anoplocephala perfoliata*, 4-8cm in length, white in colour.

Prepatent period: 1-2 months.

The tapeworm requires an intermediate host, the oribatid mite, to complete its lifecycle. The mite eats the eggs, which have passed out in the faeces, and the horse ingests the mite while grazing. The larvae then develop into adult tapeworm within the horse.

The tapeworm prefers to attach at the junction of the small intestine and the caecum, which can cause restriction leading to irritation and colic.

## Bots

Adults: The flies are dark and 1-2cm long

Larvae: 16-20mm long, reddish-orange in colour.

Bots are the larval stage of the bot fly *Gasterophilus sp.* During the summer months the Bot flies lay little yellow eggs on the horse, these are then ingested accidentally while the horse is grooming itself. Eggs then develop into larvae in the mouth, the larvae then burrow into the tongue and mouth lining for about 1 month. The larvae then pass down in to the stomach, and attach to the lining for 8-10 months, larvae pass out in the faeces to develop into pupae and then adult flies.

## Pinworms

Large white worms. Female may reach 10cm in length, males are less than 1cm.

Prepatent period: 5 months

The adult females lay their eggs around the anus, this causes irritation and results in the horse rubbing its tail. The eggs can be left wherever the horse rubs, and can fall off in to the water bucket, feed bowl etc. Cleaning under the tail daily with a disposable cloth will help remove the eggs and applying Vaseline can prevent the eggs sticking and causing the horse irritation.

N.B.

In the parasite's life cycle, the pre-patent period, is the time taken from infection to reproduction.

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