

If Only They Could Talk

Our regular focus on equine health. This month vet **BECKY DINSDALE** discusses the internal parasites commonly known as worms.

WORMS ARE internal parasites which take nourishment from the horse in which they reside. All horses carry a small burden of worms which is harmless to them, but if worm numbers increase there can be a detrimental impact on their health.

Parasite management is a fundamental component of equine husbandry and, especially in young horses, must be considered throughout the calendar year.

Consideration of the species involved in the worm burden is essential to appropriately managing it.

Strongyles

Red worms which are divided into small and large varieties.

a) Small strongyles - Cyathostomins

These are the most common worms to affect adult animals. Less than 1.5cm long and red-brown in colour, they live in the large intestines of horses. The larval stage is infective and is found on pasture where it has developed from eggs.

The larval stages mature (although they don't migrate out of the intestines as large strongyles do) and can embed and encyst in the intestinal mucosa (wall). Here they can lay dormant for months, commonly from autumn when the weather becomes cooler right through to spring. Encysted larvae that then re-emerge in the spring can readily contaminate pasture and the life cycle begins again.

These worms are not only most common internal parasite of adult horses but also considered one of the most pathological. The migration into and emergence from the gut wall causes vast inflammation, the most damage occurring when large numbers of encysted larvae emerge in late autumn/early spring. This emergence can be seen clinically as colic, diarrhoea and rapid weight loss.

b) Large strongyles - Parascaris Equorum

These worms are 1-5cm long, live in the large intestines, and have teathed or sharp cutting surfaces in the head piece. Ingestion of larvae off pasture sees larvae pass into the large intestines and subsequently into the localised blood vessels.

This migration from the gut to the vessels causes damage and severe inflammation. The larvae mature in the vessels for about 4-6 months before migrating back into intestinal lumen where they lay eggs which are then excreted in the faeces and the cycle repeats. The larval migrations can cause blood clots,

which can occlude the vessels and cause necrosis (tissue death) due to oxygen starvation to the intestinal tissue which is normally obtained from the blood supply.

Severe infestation can manifest as anaemia or even colic which can in extreme cases be fatal.

Pinworms - Oxyuris Equi

Large white worms, with the males about 1cm long and females typically 5-10cm long. They usually cause far less severe clinical signs than many of the other worm species. They are most commonly diagnosed following owners noticing horses rubbing their back ends and traumatising their tails as they cause itching and irritation to the anus and perineal region.

The adult pinworms live in the large intestines and it is the eggs laid around the anus that result in the irritation. The life cycle is completed as the eggs are knocked off the skin onto the pasture and re-ingested by other horses.

Roundworms - Parascaris Equorum

Roundworms are most commonly problematic in foals and young horses (aged less than four). The eggs can remain in the soil and be viable for years. Once ingested the eggs hatch and migrate through the intestinal walls, into veins

surrounding the intestines where they are transported to the lungs. Once in the lungs they are coughed up, swallowed and then mature to adults in the small intestines.

Roundworm infestation is most significant in foals where clinical symptoms such as ill thrift and poor growth can be seen. The migration path through the lungs and intestines causes inflammation, coughing and nasal discharge.

In extreme cases the roundworms can result in impaction, and if this occurs the prognosis is poor.



Large strongyle species



Evidence of cyathostomin migration/encysting damage in the large intestinal wall



Small strongyle larval cyathostomin



Tapeworm - Anoplocephala perfoliata

Tapeworms - Anoplocephala perfoliata

Tapeworms typically reside at the junction between the small and large intestines. They are short, stout worms with round mouth pieces that attach to the gut lining. The worms are formed of segments, the eggs being in the most terminal segments which are then shed into the intestinal lumen and into the faeces on pasture.

The eggs on the pasture are then ingested by mites which facilitate the maturation from egg to the infective stage. The mites are then inadvertently ingested by grazing horses and once digested the mites release the infective larvae.

Large tapeworm burdens can cause colic by either reducing gut motility and/or causing impaction by sheer volume of worms.

Parasite Management

Traditionally parasite-control programmes involved rotation through the available products at set intervals. However, this programme has led to a very high level of resistance in the worm populations to the anthelmintic drugs available.

To limit further resistance developing and make more

effective use of the products it is now most commonly advised to worm egg count individual animal's faeces to assess infestation and the degree of burden prior to treatment. It is also advised to only treat animals affected over a certain level; which is usually stated as carrying over 200 eggs per gram of faeces. Once the worm egg counts have been done individuals can be selected for treatment with a drug with low levels of known resistance to maximise efficacy. ■



Becky Dinsdale

At Johnston Racing, the peace of mind of our owners is a priority. This is why we have included the vet fees in our inclusive daily rate for horses in training.

Becky Dinsdale was born and raised on a farm in upper Wensleydale. She attended Ripon Grammar before studying veterinary science at the University of Liverpool, graduating in July 2019. She had a spell shadowing the vets at Kingsley Park as part of a university placement, and had further placements in France and New Zealand. After graduating she had another stint at Johnston Racing as an assistant to the vets. She then worked at a first-opinion veterinary practice in west Yorkshire before joining the yard as a full-time vet in early 2020.

Our veterinary team



John Martin

John Martin is from the town of Stradbally in County Laois in Ireland's Midlands. He was raised on a farm and from a young age had ambitions to be a vet.

He trained at University College in Dublin and it was there that he first took an interest in horse racing, which nurtured an ambition to eventually specialise in working with horses as a vet.

After graduating he took up a post at a veterinary hospital in Navan, County Meath, before moving to England to join a practice in Louth, Lincolnshire.

He joined Mark Johnston Racing at the start of 2010, staying for more than two years before returning to Ireland for a brief spell and then resuming his position at the yard in April 2013.