

SUMMARY OF KEY INTERNAL PARASITES OF AUSTRALIAN HORSES

Parasite	Lifecycle	Transmission	Migration	Site of Predilection	Prepatent Period (PPP)	Eggs ID	Identification	Other
Large Strongyle (<i>Strongylus vulgaris</i>)	Direct (no IH*)	Ingestion of L3 larvae from pasture	Migratory through arterial system	Caecum; ventral colon	6-7 months	Oval	FEC can show presence of eggs, but not distinguish from other strongyle eggs	large strongyles have no known resistance to macrocyclic lactones.
Small Strongyle (Cyathostomins)	Direct (no IH)	Ingestion of L3 larvae from pasture	Non-migratory	Caecum; ventral colon; sometimes dorsal colon	2-3 months or > 2 years	Oval	FEC can show presence of eggs, but not distinguish from other strongyle eggs	Over 50 species of Cyathostomins have been identified to date
Roundworms <i>Ascarids</i> (<i>Pascaris equorum</i>)	Direct (no IH)	Ingestion of eggs from the environment	Migratory: stomach to liver, lungs, pharynx, back to stomach	Adults in small intestine, sometimes stomach and caecum	2.5-3 months	Round	FEC: eggs are distinguished from similar size air bubbles by rough cuticle and nucleus	Foals and young horses to about 15 months age; adult worms can produce 200,000 eggs/day; eggs can remain viable in environment for up to 10 years
Tapeworms (<i>Anoplocephala perfoliata</i>)	Indirect (Oribatid mite is IH)	Incidental ingestion of infected mite	Non-migratory	Adults reside in small intestine; attached to lining of Caecum	1.5-4 months	D-shaped; occasionally squarish	FEC incidentally; ELISA (Enzyme-linked Immunosorbent Assay)	4-8cm long, 1-2cm wide Seasonal pattern – reflects mites' activity during the grass growing season
Pinworms (<i>Oxyuris equi</i>)	Direct (no IH)	Ingestion of eggs from environment/water	Non-migratory	Posterior alimentary tract (bowel)	5 months approx.	Oval with flattened end (Operculum)	FEC incidentally; "Scotch Tape" technique	Negligible pathogenicity; do not adhere to gut lining Mainly a problem with young horses although this seems to be changing (resistance acquired through being an accidental, non-target species?)
Bots (<i>Gasterophilus intestinalis</i>)	Indirect (horse is IH)	Bot fly lays its eggs on horse's body	Non-migratory (tiny larvae are swallowed)	Non-glandular portion of the stomach	Technically no PPP	Yellow/cream eggs glued to horse hair	Gastroscope – large burdens can be seen and even counted in the stomach	An insect, not a worm One generation produced per year, most of the lifecycle occurs within the horse
Onchocerca (Equine Filarial Worm - <i>O. cervicalis</i>)	Indirect (midges, flies are IH)	Transmission of microfilaria from insect to horse during feeding	Migration limited to target connective tissues	Various subcutaneous ligaments	6 months approx.	N/A	Skin biopsy	Difficult to eradicate; ML's kill microfilariae but only causes temporary cessation of egg production of adult females
Habronema (Stomach worm)	Indirect (Muscidae fly is IH)	Infected flies deposit larvae around horse's lips, then swallowed	Non-migratory	Stomach (adult worms can be found in tumour-like masses)	2 months approx..	Elongated, larvated eggs	Faecal sedimentation procedure (eggs will not float in a standard FEC solution – too heavy)	If flies deposit larvae on a wound, can cause 'summer sores'. Larvae can then prevent wound from healing.
Intestinal Threadworm (<i>Strongyloides westeri</i>)	Direct	Transmammary through colostrum and larval penetration through skin	Migratory	Small intestine	7-10 days	Small, oval, larvated usually smaller than other Strongylid eggs	Faecal flotation	Only the female is parasitic. Parasitic males do not exist. As they mature, horses develop immunity to this parasite.

*IH = Intermediate Host

