

WORMING.



There are three groups of intestinal parasites.

1. Roundworms.

Small roundworms (Cyathostomin) are the most common and most important of the roundworms and of all the intestinal parasites. The lifecycle involves the larvae burrowing into the gut wall and becoming dormant for months. Tens of thousands of these “encysted” redworm larvae can be sitting in your horse's gut wall by the end of the grazing season. Mass re emergence of larvae, usually in winter or early spring, can cause a life threatening disease called larval cyathostomiasis. Other important roundworms are the large redworm (Strongyles), whose larvae have a migratory lifecycle which can be a cause of colic, large roundworm and intestinal threadworm, which are important parasites in foals and lungworms which horses can get if grazed alongside donkeys.

2. Tapeworms.

Tapeworm eggs that are passed out onto the pasture are ingested by forage mites, which are then eaten by your horse either off the pasture or in hay or feed before developing into adults inside your horse. High burdens can be a cause of colic.

3. Bots.

Bots are not actually worms but developing fly larvae. The yellow fly eggs that you see in the summer on your horse's legs, are licked off by your horse (unless you remove them first) and develop into fly larvae in your horse's stomach over the next 8-10 months, before passing out and developing into adult flies.

Worm control—pasture management

The aim of pasture management is to reduce or ideally prevent your horse from eating infective larvae from the pasture.

- **Picking up droppings** is the single most effective way. Just think your average 15.2hh will produce 10 tonnes of dung a year!
- **Avoid overstocking pastures.** Ideally you want a maximum of 1-2 horses per acre of land.
- **Resting the pasture** from autumn for 10 months is a good idea if you have enough grazing, but in our mild climate it is by no means a guaranteed method. Clearing fields initially of dung before resting will obviously help.
- **Graze with cattle or sheep.** Horses worms are host specific, meaning that they can only survive and complete their lifecycle within a horse. If they are eaten by cattle or sheep the worms will be destroyed, the sheep and cattle thereby acting as a natural vacuum!
- **Harrowing does not work in this country!** In our mild damp climate all harrowing does is spread the worms about the entire pasture and increase the chance of your horse eating them!
- **Avoid mixing young and old horses.** Young horses seem to be much more susceptible to worms than older horses, especially the small redworms, and hence tend to have higher worm burdens. As horses age they do appear to develop some immunity.
- **Isolate and worm all new horses** before turning out to prevent heavy contamination of pastures.
- **Dose all horses in a group,** at the same time, with the same product, for the correct weight and keep a record.



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Use of Anthelmintics (wormers)

There are numerous brands of wormers on the market, but there are only four different chemical families of wormers available with no new ones being developed at present and nothing in the pipeline—so we need to look after what we have got. When you buy a wormer the important thing to look at is the active ingredient, not the brand name.

Chemical Family	Active Ingredient	Dosing Interval	Example
Macrocyclic Lactone	Moxidectin	13 weeks	Equest or Equest
	Ivermectin	8-10 weeks	Pramox Eqvalan
Benzimidazoles	Fenbendazole	6-8 weeks	Panacur
Pyrimidines	Pyrantel	4-6 weeks	Strongid-P
Isoquinoline Pyrazine	Praziquantel	Every 6 months	Equitape or Equest Pramox

What makes each of these different is what parasites they control, be it tapeworms, roundworms (adult +/- larvae) or bots and what dosing interval they have, i.e. how often you need to use that product.

In terms of what parasites are killed by what chemicals, encysted small redworms can be controlled by moxidectin or a 5 day course of fenbendazole (Panacur Equine Guard). Tapeworms can be controlled by praziquantel or a double dose of pyrantel. Bots can be controlled by moxidectin or ivermectin. To put a spanner in the works we have know resistance to two chemical families, fenbendazole and pyrantel. This means that worms that were previously killed by that chemical are no longer being killed. Up to 80% of encysted small redworms are resistant to fenbendazole.

The worming protocol that we recommend if you are using the Equest family is;

Month to worm	Recommended Wormer
February	Equest
May	Equest Pramox
August	Equest
November	Equest Pramox

Equest Pramox has been developed to include both the Equest product and the Equitape product which means you only need to worm four times in one year at 13 week intervals.

This can be repeated every year as both of these drugs have no known resistance to them and also have the longest dosing intervals of all the wormers, so hopefully reducing the likelihood of resistance developing. When worming ensure that your dose is accurate for the weight of your horse—under dosing is a waste of time and money, as well as encouraging the development of resistance. There is a very high margin of safety, so don't be afraid of over dosing. It is much more effective in terms of the health of your horse and slowing the development of resistance to over estimate rather than under

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Estimate your horse's weight. Use a weigh tape as a guide—all ponies do NOT only qualify for half a tube of wormer!!

Monitoring

Two tests are available to monitor worm burdens in your horse.

Tapeworm antibody test: Horses with a high tapeworm burden will have high antibody levels in their blood. However the test can not distinguish between a non infected horse and one with only a low infection.

Faecal worm egg count: This measures the number of worm eggs per gram of faeces. This will indicate the number of adult worms, but gives no indication of the larval numbers present, most importantly the number of encysted redworm larvae.

For those of you not on the Equest/Equest Pramox protocol, please ensure you are treating for encysted redworm with moxidectin, at least yearly and include biannual tapeworm treatment.

We encourage on an individual basis you to use faecal worm egg counts and target your worming dependent on the results. This has advantages for your horses health and the long term efficacy of our wormers.

Please phone us to discuss whether this is suitable for your particular horse.