



HORSE WORMS & WORMING

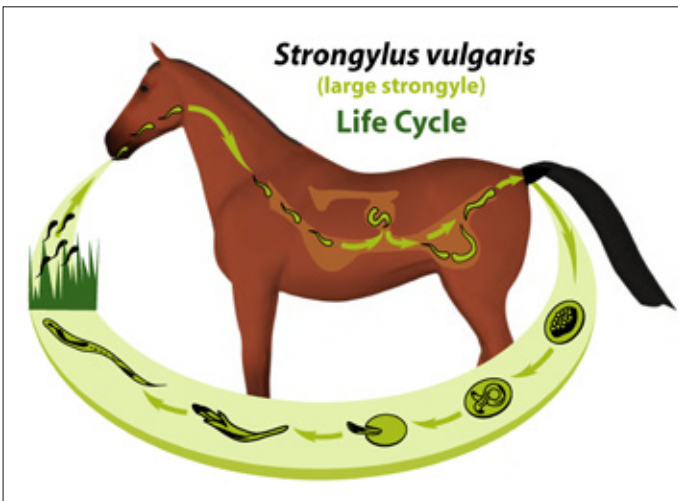
Most horse owners are aware of the need to worm horses on a regular basis, but many find the subject of what to worm with and when confusing. All horses will have at least a few worms in their body, small numbers of worms are present in most horses with no ill effect. However, significant worm burdens in horses can cause weight loss, diarrhoea and colic which can be fatal. The aim of

a successful worming programme is to minimise the worm burden that a horse has to cope with, optimising health and performance.

There are several different kinds of worms which affect horses. Each worm has a different life cycle but all life cycles have in common a period of the adult worm living in the horses intestine and laying eggs which are passed in the

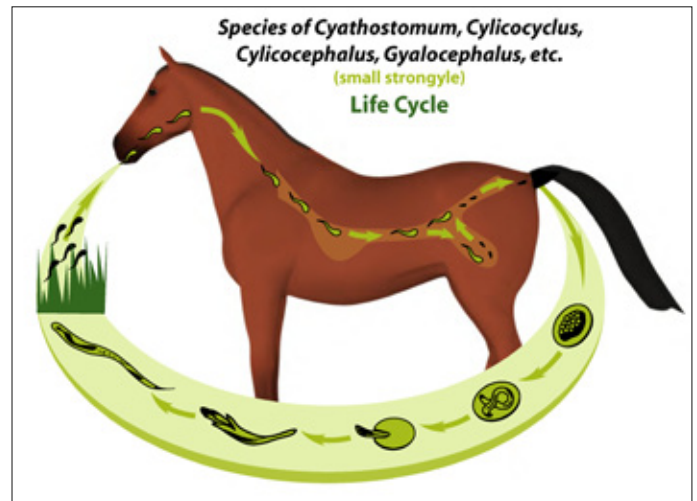
droppings contaminating the paddock, providing a source of worm infection for that horse and others. Some types of worms can cause serious damage by migrating around parts of the horses body as an immature worm (larvae) before becoming an adult worm in the gut and producing eggs.

Groups of worms commonly affecting horses



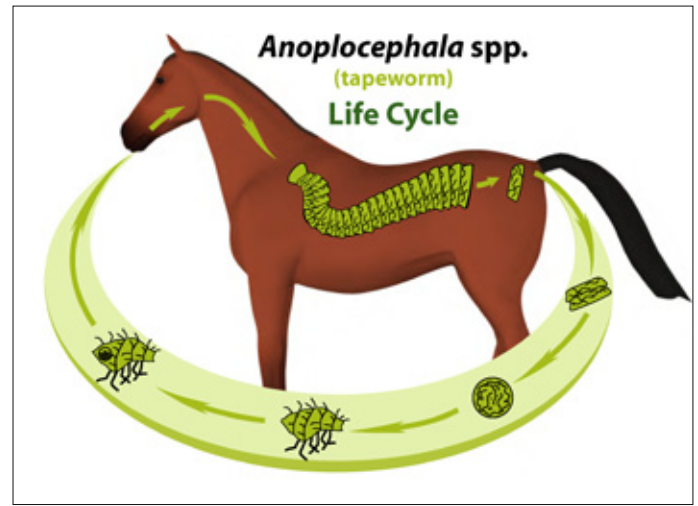
Large Redworms (known as Large Strongyles)

A dangerous worm as part of the life cycle involves migration through the horses arteries causing migrating strongyl damage. Large strongyles are now infrequently found in horses in the UK as they are readily killed by all modern wormers.



Small Redworms (Small Strongyles/Cyathastomes)

These worms do not migrate through the horse but they are problematic as the larvae (immature stages) can bury into the intestinal wall (called encysting) and can live there for up to two years before emerging 'en masse' in winter. When these immature worms emerge they can cause severe diarrhoea which can result in death. Young horses are most at risk. Treatment involves strategic dosing with products effective against encysted cyathastomes ideally in the late autumn/early winter.

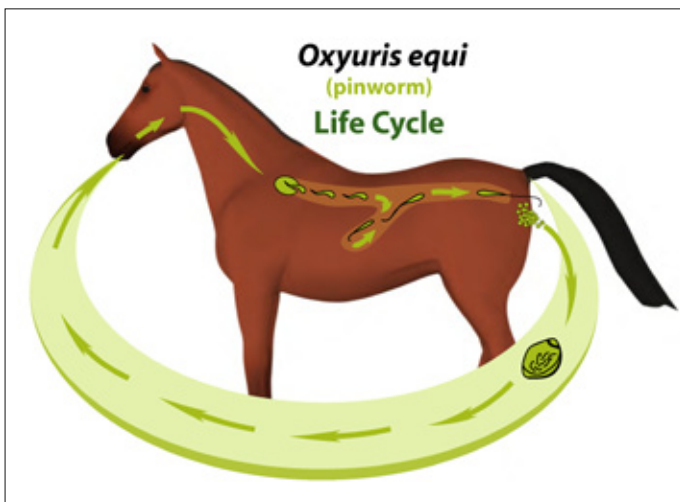


Roundworms (Parascaris)

Thick pencil like white worms found in the small intestine. Adult horses are usually unaffected but foals can be infested by this worm soon after birth and should therefore be wormed at 6-8 weeks of age. Most adult horses develop immunity to this worm by around 18 months of age.

Tapeworms

The adult tapeworm lives in the junction of the small and large intestine, large numbers of tapeworms in horses can cause a colic due to obstruction of the small intestine and intussusception (where one piece of gut telescopes inside another). Tapeworm levels in horses can be assessed using a blood test which tells us levels of antibodies to tapeworm although the results can be difficult to interpret as the levels of antibodies in the blood stay high for a long time after a tapeworm infestation has been treated.



Pinworms (Oxyuris)

Generally do not cause colic or problems in the horses intestine but as the eggs are laid on the skin around the anus can cause itching and rubbing of the tail. Can be diagnosed with a sellotape strip test.

Bots (Gasterophilus)

These are insect larvae rather than worms. The adult lays flies on the horses legs and shoulders and the eggs are swallowed by the horses when licking. They develop into adults in the horses stomach and can live in the stomach for some time before being passed out in the faeces. Mostly bots are not considered clinically significant but large numbers can irritate the horses stomach causing ulceration. Most wormers are effective against bots and one wormer in late autumn/early winter is sufficient.

Prevention of worms

Prevention of heavy infestation should be an important part of worm control and this involves good pasture management, picking up droppings regularly (spreading droppings does not have the same effect).

Avoidance of overstocking is also important (1 acre per 1-2 horses as an approximate guide) and paddocks should be rotated frequently and not overgrazed. Cross grazing can be helpful such as grazing sheep on horse pasture to clean up deposited eggs and larvae.

Control of worms

Traditionally worming has consisted of regular dosing of all horses on a premises every 2-3 months irrespective of the level of worm infestation in any particular horse, probably with the same product being used for one year before rotating to a different product. (This is referred to as Interval Worming).

This method of worm control has now largely been replaced by 'Strategic Worming' which uses different worming products at different seasons to target worms susceptible at that time of year.

Main Drugs

Although there are many brands of wormers available there are only 5 main drugs in wide use.

Fenbendazole Panacur and Panacur Guard (Panacur paste is effective against roundworm, redworm may be resistant in some areas but Panacur Guard as a 5 day course is effective against encysted small redworm).

Pyrantel Pyratape P, Exodus, Strongid P. Effective against large redworm, pinworm and most tapeworms at a double dose)

Praziquantel Equitape. Effective against tapeworm.

Ivermectin Eqvalan, Vectin, Eraquell, Maximec, Animec. Effective against small and large redworm and bots but poor efficacy against encysted small redworm

Moxidectin Equest. Good efficacy against encysted small redworm (cyathostomins) as well as small and large redworm. Must not be over used or resistance may develop.

Some products on the market consist of a combination of the above drug groups aiming to kill more than one type of worm, examples include:

Equimax (Ivermectin +Praziquantel)

Eqvalan Duo (Ivermectin and Praziquantel)

Equest Pramox (Moxidectin and Praziquantel)

NB MOXIDECTIN (EQUEST) SHOULD NOT BE USED IN FOALS UNDER 4 MONTHS OLD OR THIN HORSES.

As you can see, each drug has different efficacy against each of the different worms which infest horses. Strategic worming involves choosing the right wormer at the right time of year to target the worms which are best targeted at that time of year!!!! Easier said than done, this is where help from your veterinary surgeon comes in handy!

Example Strategic Worming Programme.

Treat in spring and autumn for tapeworms. Treat in late autumn/early winter for bots and encysted cyathostomins

Worm every 8-10 weeks (depending on product used) throughout the grazing season to reduce the burden of adult redworm and roundworm.

Month/s	Worm Threat	Wormer
January		
February	Tapeworm	Pyrantel or Praziquantel or ideally combined Ivermectin and praziquantel product.
March		
April	Spring rise in worm egg output	Ivermectin, Fenbendazole or Pyrantel
May		
June		
July	Increase in pasture infectivity	Ivermectin Fenbendazole or Pyrantel
August		
September	Tapeworm	Pyrantel or Praziquantel or ideally combined Ivermectin and Praziquantel product.
October		
November	Migrating Redworm, Encysted Redworm and Bots	Moxidectin or 5 day course of Panacur Guard.
December		

The above table is a guide only and it is often best to speak to your veterinary surgeon for advice specific to your horses age and environment and therefore the worm challenge he or she faces.

Faecal Worm Egg Counts

For horses in a medium or low risk environments (paddocks poo picked regularly and not overgrazed,) faecal worm egg counts can be used every 8-10 weeks to assess adult worm burden in the gut. If worm output is low, frequency of dosing for roundworm and redworm can be reduced.

However tapeworm and encysted redworm numbers cannot be assessed by faecal worm egg counts so we must treat for these worm types at the appropriate times of the year. We cannot test for immature worm burdens (larvae) as they do not produce eggs and migrating larvae cannot be easily treated once they are outside the gut so we must focus on reducing adult worm numbers.

Horses that are detected to carry higher worm burdens can be targeted with more frequent worming than those who routinely have low worm egg counts. Worm egg counts below 300 eggs per gram of faeces are generally considered acceptable.

It is important to remember that a horse can have a heavy larval infestation but a low faecal egg count. A blood screen can give evidence of this by measuring levels of inflammatory proteins in the horses blood.

Resistance to wormers

Populations of worms can become resistant to a particular type of wormer. This means that the worms do not die when they are treated with the appropriate chemical. As no new types of wormer are currently being developed it is important to try to prevent development of further resistance to the wormers that we have. Under dosing of wormers can contribute to the development of resistance (see below) Resistance can be monitored

by performing faecal worm egg counts two weeks after worming to ensure a significant reduction in egg production. Minimising excessive use of wormers with the use of worm egg counts to target susceptible individuals is another way of decreasing development of resistance compared to a 'blanket' whole farm approach. Ideally the class of the main wormer used should be rotated annually to limit development of resistance.. Finally, note the manufacturers recommended interval between treatments, some are longer than others.

New Arrivals

Any worming plan should include treating animals moving to the yard based on their previous worming history, or if this is uncertain, worm with Equest, Equest Pramox or a five day course of Panacur Guard and then quarantined for 48 hours.

Worming In Foal Mares

In foal mares should be wormed regularly to prevent transmission of worms to the foal. Equest, Equimax, Eraquell, Eqvalan, Pyratape P and Strongid P, Panacur paste and Panacur Guard are all considered safe for in foal mares.

Worming Foals

Foals should be wormed for the first time at 6-8 weeks of age and then every 6-8 weeks until 6 months of age when they can follow the same worming programme as adult horses. Foals should NOT be wormed with Equest or any product containing Moxidectin.

We advise foals are wormed with Equimax at 6 weeks of age as it is safe to use in foals from 2 weeks of age and a full tube treats up to 750kg bodyweight so (except for very big horses!!) a tube can usually treat your mare and foal.

Assessing a horses weight for worming

The 'gold standard' method for weighing horses and ponies is to use a weigh bridge but in reality few people have access to one of these. A good estimate' of weight can be achieved using a weigh tape which can be bought from your vets, a tack shop or a feed shop. Check your horses weight every six months with a tape as most of us do not notice change in the weight of our horses because we are seeing them on a daily basis. It is important never to under dose wormers as this can increase the risk of development of resistance to wormers, remember most horses are heavier than you think!!

If you are still confused about what to worm with and when , or just want more information, please speak to one of the team at Station House Vets.

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