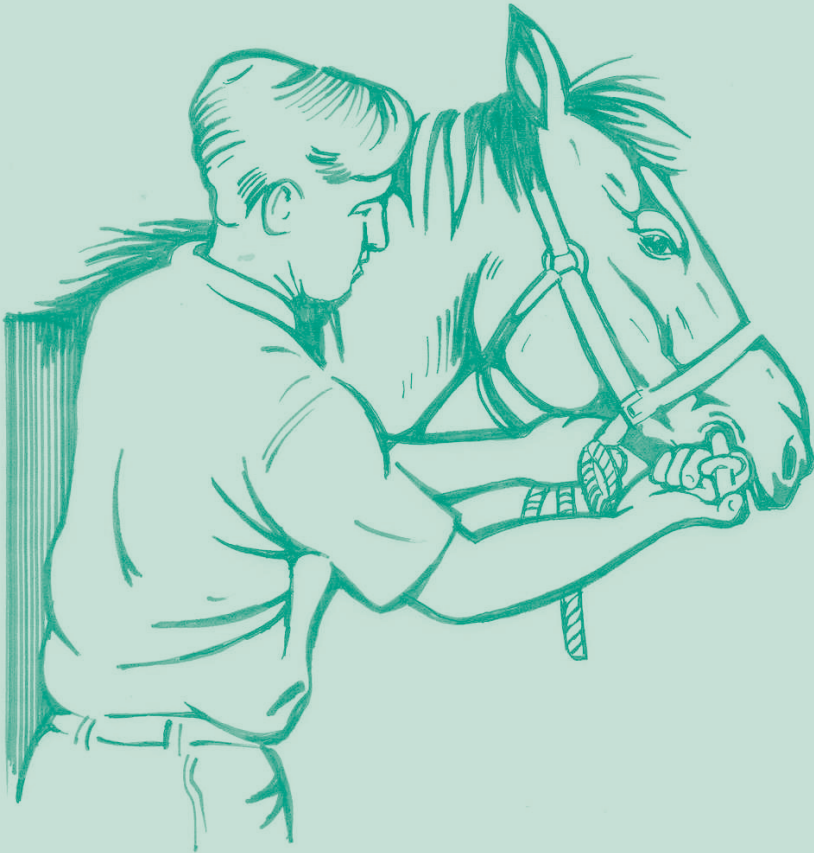


ADVICE ON

Worm Control



The British Horse Society
Registered Charity No. 23386



Parasitic worms can adversely affect the health and well being of horses and ponies of all ages. These internal parasites can do untold damage to the gut and other organs and be responsible for poor body condition, colic and occasional fatalities.

An appropriate worming programme, with regular treatment, is essential. Effective worm control depends on breaking the cycle of infection.

There are numerous types of worms that use the horse as a host during their lifecycle. The degree of damage to the horse depends on the type of worm, its lifecycle (whether it remains inside the gut or migrates round the body), the number of worms present and the horse's health and immune status.

LARGE REDWORMS (Large Strongyles)

This parasite is potentially the most dangerous internal parasite to horses.

Adult Large Redworms feed off the lining of the gut causing direct damage to the gut. Immature stages (larvae) migrate through the blood vessels supplying the gut. This migration not only damages the blood vessel walls but can also lead to blood clots and a weakening of the blood vessels (aneurysms). Disruption of the blood supply to the gut as a result of the larval damage can cause colic and, in rare cases, sudden death.

SMALL REDWORMS (Cyathostomes)

Small Redworms are the most common and numerous internal parasite of the horse and account for many worm-related problems in horses. The normal lifecycle is for infections to develop over a few weeks from ingestion of larvae to adult, egg-laying worms. However, during the winter months, some of these worms hibernate deep within the gut wall. The subsequent emergence of such worms in the spring can cause damage to the gut wall leading to loss of condition, diarrhoea, colic and, in severe cases, death. Most horses develop natural immunity to this parasite, which combined with a suitable worming programme over the summer months, protects the animal from harm. However young horses, which have spent less than three seasons at grass and, veteran horses, may be at risk. These 'at risk' groups may require additional treatment with a larvicidal product in the autumn.

LARGE ROUNDWORMS (Ascarids)

Large Roundworms are the largest of the parasitic worms that affect horses. These are rarely a problem in adult horses, because they are usually immune to them. However, these parasites and their migrating larvae can be a significant problem in foals, causing poor growth, digestive and respiratory problems and occasional fatalities. Eggs can survive on pasture or in stables for many years. Foals can become infected by ingesting eggs from their environment. It is not advisable to graze foals on paddocks that have been occupied by foals in the previous year.

THREADWORMS

During the first few weeks of life foals are susceptible to this very small worm which can cause severe diarrhoea. Dormant infections in pregnant mares are transmitted to the foal via the milk. Mares should be wormed around the time of foaling and foals may need worming from 4 weeks old.

PINWORMS

The adult worms migrate to the horse's rectum where they lay their eggs on the skin around the outside of the anus. This can cause intense irritation; the horse scratches and rubs its anal region. The eggs are then shed onto the pasture or bedding. Persistent scratching can result in loss of hair from the dock and the development of sores and open wounds.

LUNGWORMS

These commonly affect donkeys but can also affect horses; usually where horses share grazing with donkeys. Infected horses show obvious clinical respiratory signs, such as persistent coughing. Larvae are ingested from the pasture and migrate through the blood stream to the lungs where they develop into egg-laying adults. Eggs are coughed up, swallowed and passed out in the dung.

TAPEWORMS

Tapeworms are found in the large intestine and congregate around the narrow junction of the small and large intestine (ileo-caecal valve). Most infections do not necessarily produce obvious symptoms of ill health, however they can cause digestive disturbances, loss of condition and are strongly associated with colic.

BOTS

Bot flies are a common irritant to horses at grass. These large flies typically lay their sticky yellow eggs on the horse's forelegs and around the head. The eggs are licked up by the horse and hatch? Where do they hatch?. The larvae eventually reach the stomach where they attach to the lining. Large numbers can cause digestive disorders and, occasionally, perforation of the stomach.

WORM CONTROL

To maintain horse health and performance an effective worm control programme is essential. The objective is to break the cycle of infection and keep the horse's worm burden to a minimum.

WORMERS

Wormers play an essential part in effective worm control. The active ingredient is the chemical component of the wormer that kills the parasite. There are numerous brands of wormer on the market; however there are only four families of active ingredients:

Macrocyclic lactones (ML) – e.g. ivermectin as used in Eqvalan, & Eqvalan, Duo (ML) and moxidectin.

Benzimidazole – e.g. fenbendazole

Pyrimidines – e.g. pyrantel

Praziquantel – as used in combination with ivermectin, or as a single entity presentation.

The introduction of combination wormers containing more than one active ingredient e.g. ivermectin plus praziquantel as used in Eqvalan, Duo, means that Roundworms, Tapeworm and Bots can now be treated with one dose.

Certain strains of Small Redworms have been confirmed as having developed resistance to benzimidazoles and pyrantel based products.

Different wormers also control different stages in the lifecycle of these parasites. Some control only adults while others control both the adult and larval stages.

Wormers have different treatment intervals in order to control pasture contamination. For example, some need to be used every 4 to 6 weeks while others can be used every 8 to 10 weeks or more.

It is necessary to know the active ingredients of the various wormers used; not just the brand name.

With this information a worming programme can be designed that suits the needs of individual horse(s) throughout the year. If horses are to be kept together, it is recommended that all animals are on the same programme.

Wormers come in the form of pastes, gels, liquids and granules. Pastes and gels come in oral syringes for ease of administration. Granules and liquids can be mixed into the horse's feed.

Wormers should be stored correctly and should not be used if the expiry date has passed.

PASTURE MANAGEMENT

Effective pasture management is a major part of worm control.

If possible do not allow paddocks to become over-grazed and 'horse-sick'. This is where eggs, passed in the droppings, hatch into infective larvae that can accumulate to dangerous levels. Bear in mind when rotating paddocks that worm eggs and larvae can survive on a pasture from the autumn until mid-summer the following year.

Always provide sufficient pasture for the number of grazing animals. The BHS recommends 1 to 1.5 acres per horse (this will vary greatly depending on the hours the pasture is grazed, provision for stabling etc).

Where possible, sub-divide the grazing area into smaller paddocks and rotate the horses around the paddocks at regular intervals. It makes sense to worm the horses before you move them to clean pasture.

Regular collection of dung from the pasture helps prevent the development of latrine areas and reduces the potential build up of larvae on the pasture. Droppings should be collected at least twice a week during the spring and summer (May – October) and once a week in the winter. Harrowing the pasture during dry weather can also be beneficial.

Droppings should not be allowed to accumulate in or around stables and shelters. Horses should not be permitted access to muck heaps nor should horse manure or stable waste be used to 'fertilise' horse paddocks

GENERAL HUSBANDRY

Do not feed horses on the ground; provide suitable feed containers and do not re-feed hay that has been dragged through soiled bedding.

Keep all feeding utensils and water containers clean. This is important where they are contaminated with droppings. Worm eggs are very hardy and some can survive for many years within stables. Stables should be kept clean. Scrub floors and walls regularly.

PRACTICAL WORMING

It is essential that the weight of the horse is known. Horses should be wormed according to their bodyweight. Using a weighbridge is the most reliable method of determining a horse's weight but weigh tapes can also be used as a rough guide.

Always read the manufacturer's instructions and follow their recommendations. They will clearly state the dose to be used. Different wormers have different treatment intervals.

Plan your annual worming programme in advance and keep an accurate record of when horses are wormed and the name of the product and active ingredient in the product used.

Inadequate, inappropriate or infrequent worming can seriously affect the horse's health and well-being.

All horses and ponies that graze together should be wormed at the same time, using the same product. It is important, in a yard, to have a communal worming programme that is strictly followed by all owners.

RESISTANCE

Small Redworms are now widely resistant to benzimidazoles-based products. In addition resistance to pyrantel-based wormers has been confirmed. If you are concerned that these products may no longer be working ask your vet to check by doing a 'faecal egg count reduction test'. This test can also be used to check the effectiveness of your worming programme.



Some authorities advise using only one type of wormer (active ingredient) throughout the grazing season (April – September) with a change of wormer, containing a different active ingredient, the following year. However annual rotation may be inadvisable where resistance to one or more groups of wormer has been reported. In addition recent published reports suggest that using moxidectin more than once a year may accelerate the rate of development of resistance to the macrocyclic lactone group of wormers.

NEW ARRIVALS

All new horses should be wormed on arrival and kept stabled or in a yard for 48 hours before being turned out with existing horses. To ensure that you are not bringing resistant worms into your yard these should be treated with a ML-based product.

SPECIFIC TREATMENTS

At specific times of year it may be necessary to control either Tapeworm or Bots. Treat for Tapeworm in October using a broad-spectrum combination wormer containing ivermectin plus praziquantel e.g. Eqvalan, Duo, which controls both tapeworms as well as other important parasites. Alternatively use a specific treatment for Tapeworms such as a double dose of a pyrantel or a praziquantel treatment. A second treatment for Tapeworms can be given ten weeks after turnout. Where horses are grazed all year round this second treatment should be given in February.

Bots can be targeted in December, after the first frost has killed off the adult flies, using an ML-based product. Different products control varying numbers of bot species and lifecycle stages of this parasite. Ivermectin based products provide the most comprehensive control. Bot eggs can be removed with a specially designed Bot comb during the summer months.

There may also be a need to control encysted Small Redworms. Young and veteran horses are more likely to be susceptible to this parasite stage. This can be done in November with either a five-day course of fenbendazole or using a treatment of moxidectin. In 'at risk' horses such a treatment should be complementary, but not replace a thorough preventative worming programme during the year, combined with good pasture management.

WHERE TO BUY WORMERS

Wormers can be purchased from veterinary surgeons or from saddlers and merchants whose premises are licensed by the Pharmaceutical Society of Great Britain.

ADMINISTRATION

Take care when administering wormers to ensure that the correct dose is given and to avoid wastage. Check labels for any warnings or contraindications e.g. use in foals.

If you are using oral syringes, firstly identify the correct dose then remove the syringe cap. Guide the syringe into the corner of the horse's mouth and aim it toward the back of the tongue before dispensing the wormer. It may be necessary to raise the horse's head briefly to ensure that the wormer is swallowed. If administering wormers in the horse's feed, mix the dose into part of the normal ration, if necessary, add succulents to tempt the horse. Once the wormer has been eaten, the remaining ration can be fed.

Seek veterinary advice for further details about worming horses and to check the effectiveness of your worming programme.

Always contact your veterinary surgeon if your horse has diarrhoea (scour), shows signs of colic or loss of body condition.

References

References

1 Coles et al. The Veterinary Record, November 15, 2003

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