Worm Control In Horses

Horses and ponies acquire intestinal worms, mainly from ingesting worm larvae on the grass they consume while at pasture.
The worm larvae get onto the pasture from worm eggs shed in the droppings of other horses that have grazed the pasture.

Control of intestinal worms in the horse can be done in several ways, but in essence the strategies can be to prevent infestation of a horse grazing a pasture or to treat the worms once they are in the horse. As the old maxim says, “prevention is better than the cure”, and this is true for worm control, too.

Preventative strategies: Pasture Management

The single most effective method of controlling intestinal worms in the horse is adequate pasture management.

The collection of droppings from the pasture, at least twice weekly, reduces the contamination of the pasture with worm eggs. Since time is required for faecal worm eggs to hatch and for the resultant larvae to migrate away from the pile of droppings. Twice weekly droppings collections, prevents significant numbers of larvae being able to contaminate the pasture.

Moving horses to fresh pasture, and using grazing in a rotational or even strip grazing, means that horses are grazing where other horses have not been passing droppings recently and are therefore less likely to be ingesting larvae.

Faecal Worm Egg Counts :

For the common type of worms, a faecal worm egg count gives a good indication as to the horse’s intestinal worm burden. Since these worms, shed eggs continuously at a consistent rate, horses with higher worm burdens are going to contaminate pasture more than one with a lower worm burden.

In any group of grazing horses, particularly if they are all mature adults, there is likely to be only a few individuals that are consistently shedding high numbers of faecal worm eggs. Using faecal worm egg counts to identify these individuals, can allow intelligent targeting of worming treatments on these individuals.

Faecal worm egg counts can be very useful in identifying the existence of resistance in the worm population to the wormers we have. Panacur is an excellent treatment for encysted Cyathostomes, when used as a 5 day course. However, resistance is widespread to it when used as a single dose, routine treatment. It should not be used in a routine programme without testing horses’ faecal worm egg counts after treatment to ensure it is fully effective.

Treating Intestinal worms.

"Wormers" are a treatment! Like antibiotics are a treatment for bacterial infections, yet we recognise that just administering antibiotics in case there might be an infection is inappropriate, and we also know that over-use of antibiotics eventually leads to problems with resistance.

Wormers have exactly the same problems and yet most people continue to use them in a preventative fashion rather than in a targeted therapeutic manner.

The Wormers available in the UK fall into four groups of active chemicals, none of these chemicals on their own, can treat all the types of intestinal worms that horses suffer from.

These groups are:

1. the Benzimidazoles – The white wormers or drench-like wormers, eg. Panacur
2. the Pyrantel group – yellow paste eg. Strongid P & similar products
3. the Avermectin group – these include Ivermectin (Eqvalan & other similar makes) and Moxidectin (Equest)
4. Praziquantel – new chemical for treating tapeworms.

The life-cycle of the intestinal worms is about 3 weeks. i.e. the time from egg being eaten by horse to the time that worm produces an egg that the horse passes in its droppings. Therefore, there is no need to treat horses for worms at a frequency of less than 3, probably four weeks. Some wormers have what is called a latent period of activity. This means that after they are administered, any eggs eaten by the horse, don't survive during the latent period.
Group 1 wormers have no latent period, group 2 have a two week latent period. Ivermectin has a 5 week latent period and Moxidectin a 10 week latent period. This means that there is no point treating a horse again for 3 weeks after a group 1 product, for 6 weeks after a group 2 product, 8 weeks after an Ivermectin product and 13 weeks after Equest.

If using "Wormers" as a preventative treatment, then they should be used as past of a strategic approach, not just as and when owners remember or using the product on special offer that month.
Picking droppings from the pasture on a twice weekly basis is the gold standard.
Next best is to monitor the group of horses and "treat" only those horses shedding significant numbers of eggs on to the pasture.
Next best is to treat all animals in a group. If this method is to be used, then all animals in the group should be treated at the same time. Preferably, horses should be treated 24 hours prior to moving to fresh pasture.
Slow rotation of the active chemical in the wormer used, is the best way to reduce the development of resistance on an equine premises. Slow rotation means using the same wormer chemical for one year, making the change from one product to another at Christmas time.
Using a different product, each time you treat a group of horses, is not a good practice and will lead to more rapid development of resistant species of worms.

If this method of worm control is to be used, then a product should be chosen for a the year, and the whole group treated at intervals appropriate to the active chemical in that wormer, (eg. every 4-6 weeks with Panacur, every 6 weeks with Pyratape, every 8-9 weeks with Eqvalan or every 13 weeks with Equest)

In any year, horses should be treated for encysted Cyathastomes once a year, since there is no reliable test for this problem, and this should be done either with a 5 day course of panacur or a dose of Equest.

There is a good test for tapeworm burden, it is a blood test and costs about £17, since this is more expensive than the treatment, most people will prefer to treat anyway, this should be done once a year. Animals that show signs consistent with tapeworm burden, should be re-tested 6 months after last treatment and if levels of tapeworms are high, treating twice yearly for tapeworm would be justified. Without this evidence, treating more than once a year would be excessive and inappropriate.

Therefore: a basic worming programme can be established on a rolling four year cycle as below:

Year One:
Treat every 8 weeks with Eqvalan, between March and October
In late October treat for Tapeworm. (Dbl. dose Pyrental or Praziquantel)
In November treat for Encysted Cyathostomes (5 day panacur or an Equest)

Year Two
Treat Every 6 weeks with Pryental Product between March and October
In late October treat for Tapeworm. (Dbl. dose Pyrental or Praziquantel)
In November treat for Encysted Cyathostomes (5 day panacur or an Equest)

Year Three
Treat Every 13 weeks with Equest
In late October treat for Tapeworm. (Dbl. dose Pyrental or Praziquantel)
The last dose of Equest should treat the cyathostomes adequately

Year Four
Treat Every 6 weeks with Pryental Product between March and October
In late October treat for Tapeworm. (Dbl. dose Pyrental or Praziquantel)
In November treat for Encysted Cyathostomes (5 day panacur or an Equest)

How to introduce a new horse into your grazing system.

Isolation of any new horse for a 2 week period is a good idea for all sorts of reasons, not just worm control. The horse can go out but should graze an area not usually used by the resident horse population.

During the isolation period, a five day course of panacur, followed by one of the combination products, that combine ivermectin with Praziquantel, will clear the horse of all worms, so that it can be introduced in to the herd with a clean start, as far as worms are concerned.

Worming Foals

Foals are very susceptible to worms, as a rule, as the antibodies transferred from the mare will be declining by the time the foal is eating sufficient grass to be challenged by the worm larvae present on the pasture. Therefore, they need to develop their own immunity, and given a large challenge, they can become infected by large numbers of worms before their immune system has time to respond. If these are the larger round worms, then the large numbers can cause blockage in the intestinal tract.
It is sensible to worm foals from 6 weeks of age. As the foal gets a bit older, extending the interval between wormer doses a little (a week or two) more than the usual recommended intervals, can help strike the right balance between controlling worm burden but allowing sufficient exposure of worms to the foal's immune system, to allow a good response to be established by the immune system for future protection.

Worming pregnant mares

Because of the costs involved in gaining a license specifically for pregnant mares, most, if not all wormers do not have a specific license claim for their use in pregnant mares. These mares require worming like any other horse and this lack of a specific license claim, should not prevent pregnant mares being wormed. There are no significant reasons why owners should be concerned about using wormers in pregnant mares but check with one of the vets to make sure, if you are worried.

Problems with using Wormers

On the whole, wormers are pretty safe drugs. If you believe a wormer has caused an adverse reaction in any horse, this should be reported to the manufacturers, either directly or via your vet who has special yellow forms for reporting these suspected reactions. These are often not directly related to the wormer but it is worth reporting anything suspicious so that accurate pictures of any reactions can be obtained.

One case when administering a wormer may cause severe problems is when a wormer is administered to a young horse which has a heavy burden of encysted Cyathostomes. Since it can be impossible to identify a heavy burden of Cyathostomes, any young horse that has not been treated in the late autumn or early winter for encysted Cyathostomes should be treated with caution when worming in the early spring. Use of the highly efficient wormers such as Ivermectin (Eqvalan) or Moxidectin (Equest) can cause a mass migration of the hibernating Cyathostomes which causes sudden and massive damage to the gut wall. The affected horse will show profound and profuse diarrhoea, which can be fatal in a lot of cases. In such horses, it would be prudent to start the first treatment with a 5 day course of Panacur to reduce encysted Cyathostome numbers more gently, then using another more aggressive wormer such as Ivermectin or Moxidectin, 4 weeks later.