REDWINGS HORSE SANCTUARY

Field Notes

Horse owner information

June 2021

Tiny worms: BIG problems!

Why we all need to get wise about worming

Worms are not new, but the threat they pose to our horses is increasing. Reliance on frequent, routine deworming in the past has contributed to the evolution of worm populations that are 'resistant', meaning they can survive the deworming process. There is now evidence of some level of resistance in all species of worms, and to all deworming products (also known as anthelmintics).

Not only is resistance escalating, there are no new classes of drugs on the horizon to provide us with alternatives. We all have a part to play in slowing worm resistance and prolonging the viability of current products.

Use this edition of Field Notes to help you protect your horse from worms now, while preserving deworming products for the future. It may save you money too!

Nickel had multiple worm-related health issues when he arrived at Redwings

Contents:

How can we reduce worm resistance?

We need to take a targeted approach to worming by using regular Worm Egg Counts (WEC) to tell us if and when a horse needs treatment. Few or no eggs in droppings often means worming is unnecessary. One study found WECs reduced the need for worming by 82%*. If worming is needed, the WEC also identifies which species we are dealing with so we can use the most effective product.


Checking a faeces sample for worm eggs

Find out more as we answer some common WEC questions:

Can a Worm Egg Count detect all types of worm?

WECs detect three of the most common worm species: **large redworm, small redworm and roundworm.** The life cycles of these species all involve eggs being passed in horse droppings so that larvae can hatch onto grass and be ingested as horses graze.

Once in the body, **small redworm** larvae may develop into egg producing adults in as little as five weeks, however some larvae remain encysted in the gut wall in a dormant state for months or years. They don't lay eggs when encysted, meaning a WEC will not detect them during this phase. The emergence of large numbers of encysted small redworms can cause serious damage, and is often fatal. To protect horses, either ask a vet to carry out a blood test between September and December to detect small redworm, or deworm routinely in autumn with a moxidectin-based product.

Although **tapeworm** eggs are passed in droppings, they are not evenly distributed, making them difficult for a WEC to detect. However, we can check for tapeworm through reliable changes in a horse's saliva or blood. Kits are available that owners can use to collect a saliva sample and send for testing. Alternatively, horses can be routinely dewormed against tapeworm. This would be at either six or twelve-month intervals, depending on the level of risk to the horse.

My horse lives with companions, will they have similar worm egg counts?

Some horses tend to carry more worms that others, even when managed in the same way. In fact, research shows that 20% of UK horses carry around 80% of worms. This puts their own health at risk, and makes them more likely to spread worms to other horses. It is important to carry out a WEC on every horse in a group so those with high burdens can be found and treated. A horse's age will also affect their vulnerability to worms, with younger and older animals being at increased risk.

My horse had some eggs in her faeces, but I was advised not to worm her, why is this?

To reduce resistance, we need to preserve a population of worms that is vulnerable to current de-worming drugs so products remain effective for as long as possible. This involves allowing horses to maintain a small population of worms that does not harm their health, but prevents resistant worms taking over. WEC results will include guidance on whether the horse needs deworming or not. Always follow this professional advice. It may feel strange to know that worms are present and not use a dewormer, but this doesn't put the horse at risk and is critical to tackle resistance.

Does a vet need to carry out a WEC?

Plenty of professional guidance is available to ensure owners have an effective worming programme in place.
Owners can work with either:

- An equine vet
- A SQP (Suitably Qualified Person) who is trained and accredited to offer advice on worm control, carry out WECs and prescribe worming products if needed
- A specialist laboratory that provides services through online and postal channels.

Many vets, SQPs and labs offer annual packages to support owners through the yearly cycle of checking for worms and treating when needed. They will use important additional information about a horse's age, breed, background and management to help tailor advice.

Could I tell if my horse had a large worm burden?

A small worm population poses no health risk to the vast majority of horses. However, the urgent need to tackle resistance stems from the serious damage that worms can do in larger numbers.

Depending on the type of worm, signs of infestation can range from weight loss, diarrhoea and colic to coughing, respiratory problems, dullness and lethargy. Unfortunately, once symptoms are apparent, the problem is often advanced and more difficult to treat. At this stage there is also a real chance of worms causing long-term damage or even fatality. This is why we must all take a preventative approach to managing worms in our horses.

*Lester et al. (2013). A cost comparison of faecal egg count-directed anthelmintic delivery versus interval programme treatments in horses, *Veterinary Record* 173(15)

Your turn! Worming action plan...

1. Clear muck at least twice a week, more often for youngsters!

Removing muck breaks the worm lifecycle and is one of the most important ways to protect horses from worms. Worm larvae can wander for several metres, so store muck off the ground or well away from grazing.

2. Find your ideal partner

Speak to your vet about packages they may offer, see if you have any local SQPs and look online for laboratories who specialise in worm control programmes so you can choose who to work with.

3. Work together

Horses on shared yards will benefit from a co-ordinated worming plan so they are tested at the same time. This not only provides the best protection for everyone, but can help save money by sharing costs and saving on wormers.

4. Plan ahead

WEC strategies will need you to take steps at key points through the year so add reminders to your calendar and/or mobile phone to help you stay on top of worm control.

5. Perfect your sampling

Choose fresh dung from a specific horse. Wearing gloves, take a pinch from four or five different parts of the dropping to put in your container. Label clearly and send samples the same day if you can, or store in a fridge overnight.

6. Go with the guidance

Always follow the advice provided with your test result. A horse with a low worm egg count will not usually not need worming, but your horse's age, history and types of worm found will be taken into account.

7. Weigh before worming

Don't forget to weigh your horse if you need to deworm them. Round up rather than down, so if your weigh tape reads 380kg, use a 400kg dose.

8. Target tapeworm

A saliva or blood test can be carried out in spring and/or autumn to check for tapeworm. Vet healthcare plans may also include tapeworm testing.

9. Protect your pasture

Don't overstock paddocks and rest grazing routinely for several months if possible. Inter-grazing with species such as sheep or cows is beneficial. Harrowing is not effective in worm control as it spreads larvae rather than removing them.

Protecting young horses

All horses need protecting from worms, but those that are young, old or have compromised health are most vulnerable to developing and being affected by a large worm burden.

Roundworms are far more common in horses under five years of age. Most healthy adult horses develop an immunity, meaning roundworm infestation in mature equines is rare. Young horses are also more susceptible to both large and small redworm infestation. However, immunity to worms can wane in older horses, meaning they are also at increased risk.

To protect young horses from worms, work with your vet, SQP or specialist lab as soon as you know a mare is pregnant, as her worm burden will affect the foal. Foals need a specific deworming programme for their first two years while they are most vulnerable to worm damage.

Avoid keeping young horses on pasture that is overstocked or overgrazed, and be even more vigilant about poo-picking, clearing pasture completely at least every other day.

Other worms:

Worming programmes target the most common worms, but there are other species that can affect horses. These include:

- **Pinworm** - speak to your vet if you notice your horse has a very itchy bottom.
- **Bots** - bot eggs are laid on the horse's body, usually the lower legs, and can be removed carefully with a bot knife. Bots are unpleasant, but only damaging in very large numbers.
- **Lungworm** - is only a potential risk to horses that share grazing with donkeys, but very small numbers of donkeys (4%) in the UK are estimated to be infected with lungworm.
- **Liverfluke** - lives mainly in sheep and cows and is only passed to horses through shared grazing. Clinical disease is rare, but may become more common as milder wetter weather increases.

Adult worms in dung usually indicate a serious worm problem

Dory needed intensive care to survive a huge worm burden

Meet Dory!

Breed: Cob
Height: 11.2hh
Age: 2 years

Yearling Dory was one of a group of ponies rescued with several welfare issues, including high worm burdens.

When Dory developed diarrhoea, worms were suspected as a possible underlying cause and he was brought into Redwings' veterinary hospital and given intravenous fluids while more tests were carried out.

The next day Dory developed painful colic and live redworms were now visible in his droppings, confirming that encysted redworms were emerging in large numbers from his gut wall (known as 'cyathostomiasis'). Ultrasound examination also showed that part of his intestines called the caecum had folded into itself, a catastrophic complication invariably linked to worm damage. Dory underwent major surgery later the same day to remove half his caecum.

Only around 50% of horses survive cyathostomiasis, and major surgery reduced Dory's chances still further. Thankfully, with round the clock care, and two plasma transfusions he recovered well. Today Dory enjoys sanctuary life while being monitored and managed through Redwings' targeted worming programme. We hope Dory can be re-homed in the future to a family that will also provide the protection from worms he needs.

Small redworms are very common, making up around 95% of all worms in UK horses. Cyathostomiasis may be seen more frequently where there are other welfare concerns, but it is by no means limited to rescued equines and every horse is at increased risk as worm resistance escalates. Remember that the condition kills around half of affected horses. If we are to protect our horses from worms, we must all help to slow resistance and only use de-worming products when they are really needed.

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