Tips for Sustainable Worm Management for Perth horse owners

What are the important worms?

• The most common worms in horses in the Perth area belong to the “small strongyle” family. There are sometimes called “redworms”. A study of Perth horses in 2000 found that 97% of horses had some small strongyle worms. These are the trickiest worms to control with worming treatments because the immature worms go into “arrested development” where they are not killed by many types of treatment. These worms can cause damage to the gut, colic and diarrhoea.

• Large strongyles, ascarid worms, pinworms and tapeworms are also found in Perth horses, as well as some less common worms.

• Bot flies should also be considered when planning parasite control.

• It is likely that there is now resistance to one or more chemical groups in small strongyles, ascarids and pinworms in Perth. We don’t know how common resistance is in Australia because horse owners don’t routinely monitor how well treatments work.

Where are the worms?

The worms that you need to think about when planning control are:

• Immature worms in the horse (in the gut or migrating around the body)
• Adult worms in the gut of the horse
• Worm eggs and immature worms in the manure
• Immature worms on pasture

Why worm egg count?

• Gives an idea of adult worms in horse and eggs in manure/on pasture. This shows how well the current treatment programme is working and identifies horses that are contaminating pasture
• Not invasive/painful
• Cheap (compared with colics and surgery!)
• But the test is not perfect - won’t find immature worms or “non-strongyle” parasites. It’s always best to get individual advice to interpret the result. Worm counts are not a perfect test, but they are the best tool commercially available at the moment for live horses.

Immature worms on pasture

• Immature worms on pasture are important – these are the worms that infect horses
• Immature worms need warmth, moisture and oxygen to hatch from eggs and grow to a stage where they are ready to infect a horse. The warmer it is, the faster they develop.
• Immature worms able to infect horses are trapped inside a protective sheath and can’t feed whilst they are waiting to be swallowed by a horse. Once they worms run out energy stores, they die. The warmer it is, the more they wriggle and the faster they use up their energy stores.
• Manure piles prove a protected environment for immature worms. Worms live longer in manure (8 weeks in hot wet weather, 12 weeks in hot dry weather, 32 weeks in cool weather). Manure piles can become reservoirs of immature worms that are ready to emerge onto pasture once the rain (or reticulation) arrives.
• Immature worms are more susceptible to weather conditions outside of the manure pile, but worms can still survive for extended periods on pasture (2-3 weeks in summer, 7-11 weeks in winter).
• Worms use up energy wriggling out of the manure and around on pasture whilst waiting to be eaten. Worms can be spread further over pasture if they are moved with the manure or by rain/reticulation.
Tips for sustainably managing worms

- You can “exploit” the hot summer temperatures to help control worms that are living outside of your horse.

- **Removing manure from pasture** helps to reduce the number of immature worms that can emerge from manure balls onto pasture and infect horses. This is especially important for heavily stocked pastures. European work suggests that manure needs to be removed at least twice weekly to impact on worm numbers. Composting manure can help kill worms in manure and make manure “safe” to spread, but only if the heat in the compost pile gets sufficiently high.

- **Avoid overgrazing.** Overgrazing forces horses to graze closer to manure where worm contamination is highest.

- **Mowing and/or grazing with sheep or cattle** may help to reduce larval numbers on a contaminated pasture. Sheep and cattle are selective grazers like horses, so you may need to graze pasture heavily with lots of sheep/cattle to encourage them to eat “rank” pasture.

- Harrowing and spreading manure over paddocks during cool damp (“worm-friendly”) weather will actually facilitate the spread of infective worms over the pasture. **If spreading manure, pasture ideally should be rested for enough time afterwards for the immature worms to die.**

- “Resting” paddocks for sufficient time to reduce immature worm numbers may be difficult in the cooler months. Worms can survive for a long time on pasture (strongyles have been shown to survive at least 11 weeks, ascarids can survive for many years!). Worms survive longer periods in manure piles (8-32 weeks for small strongyles), even over summer. **Removing manure will reduce the time needed to effectively rest pasture.**

- Hay can be fed in feeders/containers and not directly on the ground where worm contamination is high.

- **Worm egg counts** will identify horses with worm egg counts sufficiently high to warrant treatment. These **horses should be treated with an effective worming treatment before they develop harmful parasite burdens and reduce further worm contamination of pasture with more worms.** A follow-up worm egg count 7-14 days after treatment will confirm if the treatment was fully effective or if there is a problem with parasite resistance to the treatment used.

**Parasite control checklist**

- What parasites am I trying to control?
- What treatments are effective against these parasites?
- When is the best time to treat for these parasites?
- Are my horses currently infected? Which horses are shedding worm eggs?
- What worming treatments are currently working well on my property? Are worms resistant to treatments?
- How contaminated is my horse’s environment? Can I reduce reinfection with pasture management?
- What ongoing monitoring is required to ensure worm control is adequate?

**Want to know more?**

There is more information on worm egg counts and monitoring at:

www.wormwatch.com.au

Worm Watch produces a free seasonal newsletter with current updates and reminders on parasite control. E-mail Caroline at wormwatch@iinet.net.au to receive the newsletter.