HORSE OWNERS' Worming Guide

Golden Rules of Worming



Introduction

Worm control is not simply dosing your horse on a regular basis. To be effective Four Golden Rules need to be followed.

The golden rules of worming have been designed to make you, the horse owner, aware of the benefits of strategic worming practices. This includes planning for the year ahead and the testing and monitoring of the horse to ensure that the needs of the individual horse are considered. You also need to be aware of the different types of internal parasites and their effects on the horse. Finally, you need to know and understand the type of wormer being used. Is it the correct one for the time of year, the most appropriate one for the worms your horse may have and have you used the right dose?

Golden Rule 1 Planning

Remember to:

- Manage the fields by picking up droppings and rotating paddocks for rest periods.
- Test new horses arriving on the yard then dose appropriately prior to mixing with any other horses.
- · Worm pregnant and lactating mares.
- Dose foals correctly, based on advice from SQP or veterinary surgeon.
- Treat each horse as an individual. Requirements may differ, even between horses on the same yard.
- Keep records.



Golden Rule 2 Testing

Faecal Egg Counting (FEC)

A sample of dung is viewed under a microscope and the number of worm eggs are counted. The lower the number, potentially the better¹.

Benefits to the Horse Owner

- ✓ Targeted programme for new horses on the yard.
- ✓ Improves overall health of your horse.
- Reduce the risk of the development of resistance with ineffective worming programmes.
- ✓ Worm horses appropriately.
- ✓ Can be more cost effective over time.

Limitations of faecal egg sampling

- Worm counting does not identify bots, pinworms, small encysted redworms and tapeworm
- Clear worm count does not mean worms are not present.

Worm egg count chart

Result	FEC	Risk
LOW	Less than 200 eggs per gram (epg)	Negligible
MODERATE	200-500 epg	Small risk
HIGH	More than 500 epg	High risk

When to test

Spring	Summer
FEC test for appropriate dosing	
ELISA blood or saliva test for tape worm (Recommended onc	
FEC test for appropriate dosing for young horses	
FEC and ELISA test for new horse arrivals	

Blood Testing

ELISA tapeworm test is performed by the vet and is done to determine if your horse has been exposed to tapeworms. The ELISA test measures the level of antibodies to tapeworm antigen. High levels of antibodies indicates recent exposure to tapeworms².

Tapeworm Saliva Testing

Performed by the horse owner using a specially designed swab kit, this saliva test also looks for antibodies to tape worms.

Uses

- ✓ Identify tapeworms, if veterinary surgeon has concerns.
- ✓ Produce targeted worming programmes for the horse owner.

Limitations of blood and saliva testing

The results determine only tapeworm exposure, not potential current burden since antibodies can remain present within the system for up to 12 months despite effective treatment of a tapeworm infection.

Comments

No need to worm your horse as this is an acceptable egg count

Your horse has a burden of worms, treatment should be considered

Treatment is required to reduce worm burden

	Autumn	Winter
or twice per year)		

Golden Rule 3 Know your horses' worms

Bots

Diagnosis: Bot larvae over-winter attached to the lining of the stomach

Treatment: Macrocyclic lactones such as ivermectin or moxidectin



Tapeworms

Diagnosis: Blood or saliva test for tapeworm antibodies

Treatment: Praziquantel or double dose pyrantel



Lungworms

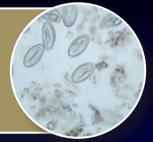
Diagnosis: Uncommon in horses **Treatment:** Macrocyclic lactones such as ivermectin or moxidectin



Pinworms

Diagnosis: Tail base irritation with white eggs possibly visible around the peri-anal region

Treatment: Adults - benzimidazoles, pyrantel or macrocyclic lactones such as ivermectin or moxidectin



Ascarids

Diagnosis: Faecal egg count Treatment: Adults and larvae pyrantel or macrocyclic lactones such as ivermectin or moxidectin



Small redworms

Diagnosis: Faecal egg count to show presence of adult worms

Treatment: Adults - benzimidazoles, pyrantel or macrocyclic lactones such as ivermectin or moxidectin

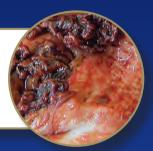
(Encysted small redworm larvae: moxidectin or 5 day course of benzimidazoles)



Large redworms

Diagnosis: Faecal egg count

Treatment: Adults and larvae benzimidazoles or macrocyclic lactones such as ivermectin or moxidectin



Worm images kindly supplied by: Beaufort Cottage Laboratories, Newmarket

Worming Yearly Rota

Spring	Summer
Tapeworm	Tapeworm
Large Redworm	Large Redworm
Small Redworm	Small Redworm
Large Roundworm	Large Roundworm

Lighter coloured areas are in general less risk. Please seek advice from your vet or SQP.

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Autumn	Winter
	Bots
Tapeworm	Tapeworm
Large Redworm	
Small Redworm	Small Redworm
Large Roundworm	Large Roundworm

Golden Rule 4 Know your wormer

Not all wormers treat the same combination of parasites. Knowing the characteristics of each wormer and the types of worms you need to treat can lead to a more targeted worming programme. This can have a positive impact on reducing the risk of the development of anthelmintic resistance, as well as potentially being more cost effective.

Advising on Resistance Prevention

Resistance to anthelmintics can occur in many different ways as outlined below:

- Unnecessary worming
- Under-dosing
- Excessive worming
- Not alternating the class of product, just the brand name
- Not seeking advice from an SQP or vet
- Not understanding the seasonal/climatic effects on worm populations

Refugia

One of the important factors influencing the rate at which resistance develops in a worm population is the relative size of the exposed population (i.e. those worms that survive treatment) and the unexposed or *in refugia* population. Worms that are free-living on pasture, or are adults or immature in untreated horses are *in refugia*. In general, the larger the *in refugia* population in comparison to the exposed population, the more slowly resistance will develop.

Appropriate wormer for the appropriate worm type should be employed so as to not allow resistant worms to establish.



Championing Animal Healthcare

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References:

- Westgate laboratories, 2008. Westgate laboratories postal worm egg counts [online]. Available from: http://www. westgatelabs.co.uk/ [Accessed 26th September 2012].
- 2 Intelligent worming, 2012. Intelligent worming the future of equine parasite control [online]. Available from: http://www.intelligentworming.co.uk/doyouknowaboutworms-gettingthemeasureoftap.asp [accessed 26th September 2012].

