

## Interpreting your Worm Egg Count (WEC) results

The results will be indicated to the nearest 50 eggs per gram (epg) along with a suggested treatment protocol for you to discuss with your own veterinary surgeon. Equitait uses the following banding system

0 – 200 epg	Low roundworm burden
201 – 499 epg	Mild roundworm burden
500 – 999 epg	Moderate roundworm burden
1000 + epg	High roundworm burden



These bands give you a rough idea of where your results fit in the scheme of things. It is likely that with the veterinary profession's improved understanding over time these bands may change.

A WEC is used to identify infestation of common adult worm species including small (cyathostomins) and large adult redworms (strongyles) and large roundworms (ascarids) in your horse. In most horses the majority of the eggs we see will be from cyathostomin worms.

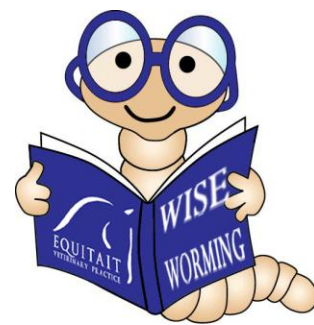
WECs do not give an accurate assessment of encysted larvae, bots, pinworms or tapeworm.

A one-off negative WEC does not guarantee the absence of a worm burden throughout the rest of the year and sometimes the correlation between the egg counts and the number of adult worms is poor with some adult worms producing different numbers of eggs per day. Because of this the advice not to treat an individual horse bears certain potential risks. In our opinion the overall risk of speeding up resistant worms outweighs this so that when we do identify horses with high adult worm burdens we still have wormers that are effective against them. Equally, routine blind worming carries a risk that you are unknowingly repeatedly using a product that the worms on your yard are completely resistant to. This is why we recommend a series of WECs throughout the grazing season to ensure we are not placing animals under undue increased risk.

### So I've got a result. What do I do now?

Current thinking suggests that counts of 200 epg per gram or less are considered low and often it is recommended that these animals are left untreated. It is thought that a low level of infestation enhances the horse's natural immunity to the parasites and provides a sensitive refugia population. Horses with counts greater than 200 are usually treated with an appropriate wormer.

While selective treatment is currently not generally recommended for a yearling or foals, faecal egg count reduction tests (FECRT) are useful in this age group to help identify which wormers are likely to be effective, particularly against *Parascaris equorum*. **If your horse has a worm egg count greater than 1000 epg and in particular if the premises you are on has number horses with high burdens then it would be worthwhile doing a faecal egg count reduction tests (FECRT) 2 weeks after worming.** For more information on FECRT please read our brochure on worm egg counts or look at the website [www.equitait.com](http://www.equitait.com).



### What is an appropriate wormer?

The type of wormer you use will be dependent on a number of factors:

Known or assumed wormer resistance of individual yards

Yard or individual worm control strategies

Previous results of WECs and success or failure of treatment

Time of year

Previous worm control strategies

Age/Use of animal

Contraindications

Compliance of taking the wormer by paste/solution/tablet

Cost

Consideration of risk of the other worm types not picked up by worm egg counting.

Clinical history

It is therefore difficult to come up with a simple 'one size fits all' worming programme for every horse under every circumstance. We aim to give you what we feel is the best up to date information available so that you, in conjunction with your own veterinary surgeon, can choose a strategy which is best suited to your situation. We always suggest you contact your veterinary surgeon prior to choosing a treatment regime.





## Wormers

One of the confusing things about worming is the numerous trade names for products that contain the same ingredient. While we recognise wormers by their trade product names it is easier in terms of knowing what they treat, egg re-appearance periods and resistance to think of them in terms of their classifications and active ingredients.

Commonly used worm classes in the UK – please note this is a summary only. Please read individual drug datasheets prior to treatment.

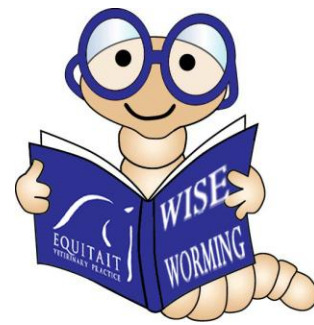
Class	Active ingredient + (Equitait Code)	Product names	Tapeworm	Redworms	Encysted Cyathostomins	Repeat WEC following treatment
Benzimidazoles	Fenbendazole <sup>†</sup> (F)	<b>Panacur, Zerofen 22%</b>	No	Yes	Yes at a 5 day course <sup>††</sup>	6-8 weeks
Tetrahydroimidine	Pyrantel (P)	<b>Exodus, Strongid P, Pyratape, Provid, Embotape,</b>	Yes, at a double dose	Yes	No	6-8 weeks
<b>Macrocyclic lactones</b>	Ivermectin (I)	<b>Eqvalan, Noromectin, Maximec, Eraquell, Annimec, Vectin, Furexel</b>	No	Yes	No	10 weeks
	Moxidectin (M)	<b>Equest*</b>	No	Yes	Yes	13 weeks
Combination Wormers	Ivermectin + Praziquantel (IZ)	<b>Equimax, Eqvalan duo, Furexel Combi</b>	Yes	Yes	No	10 weeks
	Moxidectin + Praziquantel (MZ)	<b>Equest Pramox*</b>	Yes	Yes	Yes	13 weeks
	Praziquantel (Z)		Yes	No	No	n/a

\*Avoid Equest and Equest Pramox if less the 6½ months of age, pregnant or lactating mares or if emaciated.

Always read the data sheet for safety warnings and contra-indications prior to treating.

<sup>†</sup> widespread worm resistance

<sup>††</sup>It is thought that a five day course of fenbendazole will not overcome the problem of benzimidazole resistance when treating encysted cyathostomins.



### What to do when?

Because different worms have different life cycles and susceptibility to different wormer types it is important for us to get the most out of wormers to be using the correct wormer at the correct time of year. It is also extremely important to ensure that when you do need to worm that you use correct dosage rates for the weight of your animal. Visual estimation of weight often results in under dosing and this is then a major contributing factor to developing wormer resistance. It is therefore recommended that weight tapes are used to improve accuracy.

### When should I worm for roundworms?

During the grazing season when you are most likely to be doing a worm egg count we generally suggest (assuming people are content with their provision for tapeworm treatment) in line with current thinking that horses with a worm egg count greater than 200 egg are treated with either:

Ivermectin : (ie Eqvalan, Noromectin, Maximec, Eraquell, Annimec, Vectin, Furexel)  
Followed by a repeat worm egg count 10 weeks after treatment or

Pyrantel (normal dose): (ie Exodus, Strongid P, Pyratape, Provid, Embotape)  
Followed by a repeat worm egg count 8 weeks after treatment

If you are concerned regarding tapeworm during the grazing then you can use a combination wormer containing Ivermectin and Praziquantel (Equimax, Eqvalan duo, Furexel Combi) or a double dose of a Pyrantel wormer.

We believe the only consistent currently licensed treatment for encysted cyathostomins is using a moxidectin based product (Equest or Equest Pramox). On the whole at the end of the grazing season most of the larvae become encysted. The danger period is when these encysted larvae emerge again in the spring. Given the clinical seriousness of a mass emergence of encysted cyathostomins which can result in diarrhoea, weight loss and colic, coupled with the current inability to accurately determine encysted larvae numbers has meant that we generally advise a minimum of once yearly treatment with a moxidectin based product between late October and early December

### When should I worm for tapeworm?

Care should be taken to consider treatments or testing for tapeworm. To detect the tapeworm burden an ELISA blood sample can be useful. There is some debate as to how often you should worm your horse for tapeworm and this probably relates to a number of risk factors. In low risk horses once a year worming for tapeworm is likely to be effective. We generally recommend this is done in combination with the encysted cyathostomin dose (Equest Pramox) in late autumn/early winter.

For higher risk horses a subsequent dose in the spring is warranted.

Products containing praziquantel or a double dose of Pyrantel should be sufficient to be effective against tapeworm.

### But what about Bots?

Bot fly larvae while not technically worms can infect horses although rarely cause clinical problems. They are sensitive to the macrocyclic lactones (Ivermectin and Moxidectin) and usually a once a year treatment in early winter when the bot flies have gone is sufficient for good control.

Given the above we are therefore currently suggesting treating horses with an egg result greater than 200 with Ivermectin and then with a minimum of one Pramox in approximately November. See below for an example of how this might work within a calendar of strategic worming.

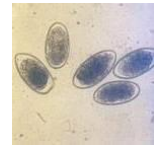




Table 3. Example strategic worming program

Month	When to worm egg count	Suggested treatment protocol*
Jan		
Feb		
March		
April	WEC in 1 <sup>st</sup> week in April	If ≤200 epg – no treatment If >200 epg – treat
May		
June	WEC in mid June	If ≤200 epg – no treatment If >200 epg – treat
July		
Aug	WEC in last week in August	If ≤200 epg – no treatment If >200 epg – treat
Sept		
Oct		
Nov	Treat with PRAMOX (this will treat both tapeworms and encysted cyathostomins)	
Dec		

Strategic worming is fantastic but like most things it is no substitute for good pasture management. For effective pasture management consider these tips:

- Picking up droppings markedly reduces the pasture population of worms and reduces the number of wormer treatments that are necessary. This should ideally be done twice weekly.
- Rotating fields is a useful way of allowing eggs to die off before horses graze the area again. However to be most effective this requires gaps of over a year without horses grazing.
- Co-grazing the paddocks with other species such as sheep will also help to reduce worm egg numbers.



For simplicity we record a zero worm egg as a result when we have not identified any worm eggs being present. However because on the whole we use a method that is only sensitive to the nearest 50 epg a result of 0 egg per gram may actually reflect a true worm egg count somewhere between 0 and 49. In practical terms due to the current worm control advice this is all but arbitrary.