

Equine worming- based on best evidence availableⁱ

Key issue:

Resistance to worming products is growing problem in horses in the UK and trying to reduce wormer use and use those wormers we do have as effectively as possible is **vital for our horses' current and future health**

Summary for 2023

- **March/April** Youngstock (1-5 years old) overwintered on pasture extra dose of Equest®
- **Grazing season** (March to end September) treat according to these thresholds:
 - *High risk horse* with worm egg count >250 treat with single dose ivermectin (e.g. Noromectin) or pyrantel (e.g. Strongid- P®) (**alternate yearly, so if used ivermectin last year use pyrantel this year**)
 - *Low risk horse* with worm egg count >350 treat with pyrantel or ivermectin
 - Do not move pasture after worming under normal conditions

e.g. 1 st March (all dates approximate)	Faecal count	If high treat with pyrantel or ivermectin alternate years as above
c14 days later	Optional worm egg count reduction test	Follow up sample for 6-10 high count horses (Checks for resistance to wormers)
c1 st May	Faecal count	If high treat with pyrantel or ivermectin as above
c1 st July	Faecal count	"
c1 st September	Faecal count	"
c15 th November	Tapeworm Test	(optional, if not done must use Pramox version of Equest in December)
c1 st December	Encysted Redworm	Equest (tapeworm -ve) or Equest Pramox (tape +ve or unknown) treatment

Key points:

- Minimise **stocking density** (minimum 1.5 acres/horse)
- Maintain **consistent horse populations**
- Use **worm egg counts** to identify problem animals and groups- reduce stocking density in problem groups
- **Young and old are most at risk** of high worm burdens
- **Removal of faeces at least twice weekly** particularly when temperatures >10°C and ground moist (harrowing is now thought to be counterproductive)
- **Separate muck heaps** from grazing areas- parasites can migrate several meters. Keep distant from grazing or fence off
- **Pasture rotation** is best done in hot dry weather as this will kill some parasites (Strongyles) in a few weeks that can survive 6-9months on pasture in other conditions. Tapeworm 'eggs' overwinter in mites so survive all but the longest prolonged cold
- **Mixed grazing with cows and sheep** will reduce numbers of most parasites although there are other considerations (the cows and sheep need to be liver-fluke free)
- **Rough pasture** is best avoided as it suits parasites. Faeces deposited at edges of field are also a good reservoir of parasites
- **Use weigh tapes** or other methods of weight assessment

- **Avoid "spit out"** of wormer to prevent underdosing- consider tablet wormers for difficult horses, treats. Spilled products dangerous to dogs and cats

Worm egg counts

Reasons for using

- Provide a **guide to the need to worm** a population of horses when used regularly
- **Infection rates vary greatly** between different individuals in groups of similar age animals so important to do individually; typically higher in youngstock and the older horse, particularly those with Cushing's disease
- Reduce cost of worming as well as reduce the development of resistance and so **reduce the risk of illness in your horses**

How and when to perform

- Timing in low risk population (See table) -3x- **early March, early June, early September**
- Timing in high risk (e.g. youngstock) population- 4x – early March, May, July, September
- **Collect all samples close together**, ideally same day and within 12 hours of defaecation
- Collect samples from **at least 5 different faecal balls** (as they can vary widely) for a total **tennis-ball sized** (50g) or **sample pot-sized** sample
- Place into a **labelled sample pot** or **labelled zip locked polythene bag** with the air expelled
- Better to **refrigerate** at under 6°C or otherwise keep cool
- Sample needs to be **processed within ideally 2 days** (5 days as a limit)

Risk factors for parasitic infection. Classifying horses as low, medium or high risk can help in determining the required frequency of diagnostic testing and appropriate treatment		
Factors indicating a low risk	Factors indicating a moderate risk	Factors indicating a high risk
Repeated negative FEC/tapeworm antibody levels	Low/moderate FEC/antibody levels	High FEC/antibody levels
Cohorts negative FEC/tapeworm antibody levels	Cohorts low FEC/tapeworm antibody levels	Cohorts high FEC/tapeworm antibody levels
5-15 years old	>15 years old	<5 years old
Faecal collection > twice per week	Sporadic faecal collection	No faecal collection
Good pasture management	Moderate pasture management	Poor pasture management
Stable population	Occasional movement	Transient population
Low stocking density	Medium stocking density	High stocking density
No youngstock		Grazing with youngstock
Effective quarantine		No quarantine
No history of parasitic disease		History of parasitic disease
No history of colic		History of colic
		AHR identified on property by FECRT

AHR, anthelmintic resistance; FEC, faecal egg count; FECRT, faecal egg count reduction test

Autumn testing- Tapeworm

- Tapeworm is relatively rare in adult horses in the UK and the risk of related colic is reported as low in most horses
- Resistance is a concern
- Saliva tests are available (as well as blood tests)
- Perform saliva test before autumn worming in all horses

Autumn deworming- reducing the risk of small redworm related disease (cyathostomiasis) and treat tapeworm positives

- Small redworm potentially very serious disease but not common in well run yards
- A test is available but not fully validated yet- we may advise using in future years if data appears
- Equest® (Moxidectin) in Autumn/Winter at least 12 weeks after last worm egg count
- Youngstock overwintered on pasture- additional Equest® dose in spring

Young horses (1 year- 5 years old)

- **Less immune** so-
 - Prioritise clearing of faeces regularly (at least twice weekly, if necessary over field with adults)
 - Rotate grazing- rest paddock ideally during hot dry weather, do not use same paddock year on year
 - Worm egg count every 4-6 weeks
- Tapeworm testing/redworm treatment as adults
- If overwintered on pasture- additional Equest® dose in spring

How to videos:

Using a weigh tape:

http://www.3dworming.co.uk/videos/Virbac%20Weigh%20Tape_CLIPCHAMP_keep.mp4

Worming with a syringe (NB Set syringe to correct dose):

http://www.3dworming.co.uk/videos/Virbac%20Syringe_CLIPCHAMP_keep.mp4,

How to take a saliva tapeworm test

<https://youtu.be/5vIbBqXspgQ>

ⁱ Rendle and others (2019). Equine De-worming: a consensus on current best practice, UK vet. Available at: http://www.3dworming.co.uk/uploads/worming_consensus_statement.pdf