

Best practice for worm control in horses, ponies and donkeys has changed over the years and veterinary surgeons now recommend a targeted approach to worming instead of the traditional process of worming horses at set intervals throughout the year.



Traditional methods have led to increasing resistance to wormers and also mean that owners are often worming unnecessarily and/or using the wrong wormer and/or using an incorrect and ineffective dosage. Adopting a targeted approach to worming saves you money, is better for your horse and the environment and importantly reduces the chances of wormer resistance.

Targeted worming works on the principle that by using faecal worm egg counts you determine whether or not your horse actually needs worming. If it does then your veterinary surgeon can advise you with regards to which wormer to use; if it doesn't then you save money by not using unnecessary wormers. We can also help you check to see if your horse is resistant to certain worming products

#### **Targeted worming:**

- 1. Saves you money
- 2. Reduces wormer resistance
- 3. Is healthier for your horse
- 4. Is beneficial for the environment

#### Did you know?

- 1. For every 10 adult horses grazing only 1 or 2 will need worming
- 2. 4 out of 5 wormers are given unnecessarily
- 3. Targeted worming is proven to be cheaper
- 4. Parasites aren't all bad they may help the immune system
- 5. Over-worming causes wormers to become ineffective
- 6. Resistance to wormers is already widespread
- 7. Over-worming is damaging to the environment

#### Why do we need to change?

- Every year worm damage results in disease such as poor performance, weight loss (or lack of weight gain) colic, diarrhoea and regrettably sometimes death
- Studies have shown that most horses are being wormed too frequently and with inappropriate products
- The number of worming products can be bewildering and advice on worming can be confusing and even misleading
- Experts are agreed that the traditional approach of worming at pre-determined intervals is misguided
- Worming at pre-determined intervals has resulted in worms developing "resistance" to wormers



- Resistance has already been identified to all the classes of wormer in the most important types of parasite
- There are no new classes of wormer under development for horses
- "Resistance" has had devastating effects on sheep flocks and is likely to do the same to horses
  if nothing changes

If worming habits fail to change we will all have to accept the harsh realities of worm-related disease: poor performance, weight loss (or lack of weight gain) colic, diarrhoea and regrettably sometimes death.

#### What is wormer resistance?

Wormer, or more correctly "anthelmintic", resistance occurs when a high proportion of the parasites picked up from a particular pasture are no longer killed by the wormer.

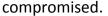
#### The main factors that lead to wormer resistance are:

**Using wormers too frequently** kills the susceptible worms before they can reach sexual maturity. This means that the worms that are genetically resistant survive and go on to breed with one another producing offspring that are also resistant.

**Incorrectly estimating the weight of the horse and under-dosing** helps partially resistant worms to survive which also increases the proportion of resistant worms that are left to breed.

Repeatedly using wormers of the same type applies the same selection pressure on a population and may hasten the development of resistance to that wormer.

Once resistance is present in a worm population in a horse or on a property it cannot be reversed. The health, welfare and performance of those horses infested with resistant worms may be







#### Does your property already have wormer resistance?

Determining whether you have wormer resistance is straight forward and inexpensive. Ideally all properties should be checked for resistance as this will help your vet to make the best choice regarding which wormers are best to use on your horses. If you are on a property that has a lot of horses or have been using routine treatments without faecal egg counts for many years then you would be strongly advised to check for resistance at the beginning of each grazing season.

To check for resistance you simply need to perform a "faecal egg count reduction test" under the guidance of your vet.

- 1. Collect faeces from all the horses to be tested (as described below) and submit it for a worm egg count. The test works best if all horses or preferably more than 6 are included
- 2. Any of the selected horses that have a worm egg count of over 200 should then be wormed with the wormer that you wish to check for resistance (this must be the same for all horses in the set). There is no point performing the test unless the selected horses have a high worm egg count
- 3. Ensure that you administer an accurate dose of wormer. If you are using a weigh tape then administer 10% more wormer than you estimate to be required e.g. if the weigh tape says 500kg give a 550 kg dose of wormer. It is essential that all horses receive the whole dose (and swallow it all) or the results will be unreliable
- 4. 14-17 days after the wormer has been administered collect faeces samples from the same horses (as described below) and submit them for a second worm egg count
- 5. Your vet will calculate the reduction in worm eggs and, based upon the results, i.e. dependent upon the reduction in each horse's worm count, will be able to advise you whether or not resistance is present

#### **Targeted Worming**

For most premises with adult horses that are under consistently good management a simple strategy of regular worm egg counts through the grazing season with occasional strategic doses of the correct wormer is appropriate. The principle is simple, you have a worm egg count done and if the results are above 200 eggs per gram your vet will advise you that you need to worm your horse and will also tell you which product to use, based upon the core active drug.

If the worm count is zero or below 200 eggs per gram then you do nothing more except to repeat the process (ideally a total of 4 times per year through the grazing season).



Every property is different and there is no single worming plan that will be suitable for everyone. To develop an appropriate plan for your horse we need to know:

- how horses on the property have been managed in the past
- their pasture management plan for the year
- whether there has been any parasite-associated disease in the past on the yard
- Whether there is any wormer resistance on the property

We can help you manage your property, prevent worm-related disease in the future and save you money by avoiding unnecessary worming whilst ensuring that you continue to follow best practice with regards to parasite control in the horses that are in your care.

#### **Getting a worm egg count done – what to do:**

- 1. Collect a faeces sample when advised to do so by your vet: a good guide is to collect faeces between February and November. Where possible we would encourage whole yards to submit samples together so that all horses can be assessed simultaneously and managed appropriately.
- 2. Using one of the LEH worming packages, use the glove provided and take a large pinch of faeces from 3 different areas in a pile of fresh faeces and place all 3 pinches into the sample bag (labelled bag 1). The total volume should be at least the size of a golf ball. Expel the air from the bag and seal it. Place into the second bag (labelled bag 2).
- 3. Complete all the details (or this may delay processing) on the sticky label on the outside of the second plastic bag.
- 4. Place the faeces sample in the pre-paid envelope provided and put it in the post within 24 hours. Store the envelope in the fridge or in a cool place prior to posting.
- 5. The sample will be delivered to The Liphook Equine Hospital.

#### When the lab results are available:

- For clients of the LEH, we will phone you directly with the worm egg count results and advise you:
  - Whether you need to worm any of your horses.
  - Which wormer would be best to use given your specific circumstances.
  - Where whole yards are on the scheme, it may help us if owners allow LEH vets to contact the yard owner/manager to coordinate any required treatments.



In a recent study targeted worming reduced the cost of annual worming by an average of £20 per horse.

#### **Practical management tips**

Targeting individual horses with high worm egg counts for a worming treatment, will go a long way to reduce the threat of resistance. There are also certain management steps that will help to reduce the use of wormers, reduce the levels of worm infection and reduce costs of treatment.

- 1. Remove faeces from pasture ("poo-pick") at least twice weekly and preferably every couple of days
- 2. Avoid spreading horse manure on pasture grazed by horses, e.g. harrowing
- 3. Avoid overstocking and overgrazing
- 4. Rotate grazing with sheep or cattle or rest pastures regularly
- 5. Avoid moving horses to clean pasture within 2 weeks of worming. It used to be recommended that we "dosed and moved" but this is misguided as it results in all of the resistant parasites moving with the horses and all of the non-resistant ones being left behind
- 6. Muck out stables regularly especially when they contain foals and weanlings
- 7. Worm mares prior to foaling with an ivermectin wormer

#### What about younger horses?

In foals, yearlings and 2 year-olds more frequent worming is required as younger animals are more prone to infection. You should consult your vet for specific advice tailored to your circumstances.





#### Sign up for the LEH targeted worming programme:

In order to make it as simple as possible for you to adopt a targeted worming approach we have created the LEH Targeted Worming Programme

- Complete a registration form to give us information about your horse and yard so we can offer you the best advice. Where possible we would encourage whole yards to sign up together so that all horses are managed in appropriate groups.
- You will be given an annual worming pack for each horse with everything you need for 4 worm
  egg counts, spaced evenly throughout the grazing season. The samples should be submitted by
  the next relevant date on the label e.g. Winter samples by the
  28th March, Spring samples
  by the 31st June, Summer samples by the 31st August, and Autumn samples by the 31st
  October.
- Send us 4 faeces samples through the year as described above, in the pre-paid packaging provided and we will provide advice based upon the results regarding whether to worm or not and which product to use.

You will have the option to buy any recommended worming products from LEH at a special discounted price.





#### **Terms and Conditions:**

#### The LEH Targeted Worming Plan Special Price £33.00 (inc VAT) and includes:

- 4 worm egg counts submitted by the deadline as clearly marked on the submission labels, lab
  fees, postage and packing, and unlimited advice on parasite control for the period of one year
  from registration (please note the 'Targeted Worming Egg Count' packs are only valid for 12
  months from registration)
- A special competitive rate for wormer purchases
- Where more than 6 horses are enrolled on the plan at the same property we can also come and weigh each of the horses on the plan twice per year (in February and November) and administer any appropriate wormers to the horses in the plan during the weigh visit.

#### excludes:

- The cost of checking for wormer resistance
- This only requires one extra worm egg count per year!
- Tapeworm assessment which cannot be assessed from the faecal samples
- Faecal sand analysis
- The transfer of package to another horse or owner





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