

## FACTSHEET: OWNERS

# RESPONSIBLE WORM CONTROL

*Controlling worms in donkeys is fundamental to their health and welfare. While few donkeys will ever be worm-free, by following a suitable worm control programme you can keep the number of worms to a minimum. This includes the correct and responsible use of wormers alongside good pasture management.*

### Why is it important to control worms?

Donkeys usually acquire worms (internal parasites) by grazing contaminated pasture.

Worms live in your donkey's body, draining their nutrients and sometimes causing damage to the various organs that they can be found in.

Donkeys that are heavily affected by worms can fail to gain or maintain weight and may be in poor condition. However, even without these signs it is important to follow a worm control programme.

Reducing the number of worms is dependant on interrupting the life cycle of the worm to reduce pasture contamination and also using wormers effectively to prevent resistance developing.

### Internal parasites that can affect donkeys



*Cyathostomins also called small strongyles (small redworms)*



*Fasciola Hepatica (Liver fluke)*



*Parascaris (Ascarid)*



*Gasterophilus (Botfly) larvae*

## What is a faecal worm egg count test?

A faecal worm egg count test (FWEC) records the number and type of worm eggs seen in a sample of your donkey's dung. A positive result indicates the presence of adult (egg-laying) worms. The count indicates whether your donkey is shedding a low or high number of eggs in its dung.

Not all donkeys grazing the same pasture have the same worm burden. Studies in horses (thought to apply to donkeys too) have found that about 80% of the worm population will be carried by just 20% of the animals. These individuals are known as 'high-shedders' and are the most likely to require treatment with a wormer.



*Adult small redworms in dung*

FWEC tests are useful but they have their limitations.

They:

- do not accurately reflect the total number of adult worms
- only provide a snapshot of the number and type of eggs released at the time of sampling
- will usually miss pinworm eggs since they tend to stick around the anus rather than being shed in faeces
- only identify the potential burden of certain types and stages of worm
- cannot reliably detect tapeworm or identify lungworm and liver fluke. You will need separate tests to check for these parasites.

## How do I collect a sample for testing?

- Ideally you should send a sample of your donkey's dung for FWEC testing four times a year. This will help build a picture of your donkey's 'parasite status' and the type and number of eggs they shed over time.
- In the UK you can arrange a FWEC test through your vet. Alternatively, you can buy a kit from some equine or agricultural suppliers or they can be bought online. These kits normally contain all the necessary equipment (usually a glove, plastic bag or container, and labels), with prices starting around £5.50.
- You can also send samples for FWEC testing to The Donkey Sanctuary in-house laboratory.

Further information on how to collect a sample and sample submission forms can be found on our website: [thedonkeysanctuary.org.uk/what-we-do/knowledge-and-advice/for-owners/worming-your-donkey](http://thedonkeysanctuary.org.uk/what-we-do/knowledge-and-advice/for-owners/worming-your-donkey)

- Read any instructions given by your vet or the laboratory regarding how to package and send the sample.



**When packaging and sending samples, follow local or national rules on posting hazardous materials.**

**When you have the results, seek advice from your vet or a Registered Animal Medicines Advisor (SQP) on whether your donkey needs to be given a worming treatment.**

## Using a wormer

Wormers come in several different forms; pastes, gels, liquids, tablets and granules. Some can be administered via the given dosing syringe while other products may need to be mixed into a small feed. Although it seems like there are lots of products to choose from, there are a limited number of 'active ingredients' (drugs) which are sold under several different trade names (brands). If your vet suggests a worming treatment is needed they will be able to help advise on the most appropriate product to use.

Some equine or agricultural suppliers will have a Registered Animal Medicines Advisor who are also qualified to give advice on worming control programmes and to prescribe some of the wormers.

Before worming you must know your donkey's weight so that you can give the correct dose. Underdosing (giving too little) will mean there is not enough of the drug to kill all worms that are targeted. Drug-resistant worms will survive and eventually multiply. Over time, as 'resistance' develops, this can affect how well a drug works. For this reason, you should round up your donkey's weight to the nearest 50 kg when giving wormers.

See factsheet *The donkey weight estimator* for more information on how to estimate your donkey's weight.

### USEFUL INFORMATION:

- As with any drugs or medication, keep wormers out of the reach of children, do not store them near food and drinks and keep children away from the area when you are giving wormers to your donkeys.
- Equine wormers are dangerous to dogs, you should never give your dog a wormer that you use for your donkey. Store equine wormers out of reach of dogs and do not allow dogs in the area where you are giving wormers to your donkeys.
- Dispose of containers safely and appropriately.

### STEP-BY-STEP GUIDE TO ADMINISTERING A WORMER

- 1** Set the tube to the correct dose for your donkey's weight.
- 2** Stand next to your donkey and guide the syringe into the mouth, point it to the back of the tongue and press the plunger to dispense the wormer.
- 3** Observe your donkey to ensure the wormer is swallowed and isn't spat out.
- 4** If this isn't possible the paste can be added to a small amount of feed. Ensure the food is completely consumed.

## Managing the environment

While the appropriate use of wormers can help to reduce pasture contamination and treat clinical disease, it only has an impact on the parasites within the animal. The vast majority of parasites are found in the environment so control of this population is essential too.

Strategies you can use to control worms in the environment:

- Rotating paddocks to rest the land allowing paddocks the chance to rest, can help break the lifecycle of some of the worms. Paddocks should be rested for a minimum of three months. Resting for longer periods will kill off a greater number of eggs and infective larvae and it will allow the grazing a better chance to recover, especially if it has been overgrazed or poached. While resting pasture can be beneficial in reducing your donkey's worm burden, it is worth noting that there are certain worm eggs such as ascarid eggs that can survive on pasture for several years.
- Poo-picking fields regularly (at least twice a week) will interrupt the worm's life cycle. It will reduce the number of worm eggs that could hatch and potentially infect your donkey.
- Minimising 'stocking density' or the number of animals kept together in the same area. Donkeys create natural 'toilet' areas in their paddocks which are commonly known as 'roughs'. These areas tend to have a much higher concentration of worm eggs than the grazing areas known as 'lawns'. If you overstock the pasture the donkeys will be forced to eat closer to the rough areas and will then be at higher risk of ingesting infective worm larvae. High stocking densities can also result in overgrazing, meaning donkeys are grazing short grass, closer to the ground. Their chance of picking up infective larvae will be greatly increased.
- Grazing cattle or sheep on your donkeys' pasture can reduce the number of worm larvae that could potentially infect them. Most worms are species-specific so equine worm larvae will not survive in a cow or sheep, and cow or sheep worm larvae will not survive in a donkey or horse. Donkeys can sometimes exhibit aggressive behaviour towards other animals so they should be grazed separately. Alternating grazing between donkeys and cattle or sheep will be beneficial to the parasite status of both species.
- Rotating the type of drug used when worming, and keeping a record. Your vet or Registered Animal Medicines Advisor can advise you of the best way to do this when you are deciding which wormer to use.
- Avoid spreading donkey dung back on grazing land – donkey manure will need to be composted for a minimum of six weeks with regular turning and maintenance at a minimum temperature of 50 – 70°C in order to kill off worm eggs. If this cannot be managed, do not spread dung back onto your donkey's grazing.
- Harrow pasture only in hot, dry weather. The harrowing process spreads out manure across the paddock, which in turn will spread worm eggs. If it is hot and dry these eggs will be destroyed, but in mild, damp weather harrowing could increase the chance that your donkey may pick up infective larvae.

## The donkey worming calendar for owners

### Spring/Summer

Take dung samples for FWEC testing twice during the spring/summer season. The results will guide decisions on whether your donkey needs worming. Most vets and laboratories only run checks for redworms and roundworms as standard. While this is enough for most donkeys, if you have concerns about the health of your donkey or you have foals, youngstock, or pregnant or lactating donkeys, request a full-profile analysis to cover a wider range of parasites. Ask about lungworm and liver fluke checks if your donkey grazes with other animals and, in the case of liver fluke, if your land is wet and marshy.

### Autumn

Take a dung sample for FWEC testing and speak to your vet about treating for tapeworm. There are currently no accurate ways of detecting tapeworm burdens in donkeys. If your donkey's FWEC test results are high, your vet or Registered Animals Medicines Provider will be able to recommend a suitable product to use.



### Winter

Winter weather conditions are not favourable for the development of some parasites, so small redworms have developed a unique survival strategy. Immature larvae, ingested while grazing, travel to the gut, burrow into the gut lining, and lie dormant there until the weather improves and they can continue their development. These larvae are known as 'encysted'. At this stage, the larvae are immature and not laying eggs, so there is no way of detecting how many might be hiding away in your donkey's gut lining.

The larvae can erupt from the gut in large numbers, which can have serious consequences and will likely make your donkey very ill. Traditionally, the highest risk period for the larvae to start emerging was late winter or early spring. However, due to changes in our climate, the pattern of emergence has become less predictable.

Your vet or Registered Animals Medicines Provider will be able to recommend a suitable treatment for encysted cyathostomins (small redworm larvae).



**Different rules apply to foals, sick donkeys and pregnant or lactating females. Seek advice if you are planning to worm any of these.**