BEST PRACTICE PARASITE CONTROL
Treating worms in horses

If we keep horses it stands that we keep parasites too. Worm eggs and the possibility for infection are all around us in the environment. Through natural selection the parasites that live in our horses are evolved to produce millions of microscopic eggs per day.

Horses can deal very well with low burdens but the more intensively we keep them and expose them to new parasite challenges the more easily this can develop to cause pathological and life threatening disease.

Worming Chemicals
Historically many horses died from worm burdens until the 1960's until highly effective treatments came onto the market to revolutionise our control. We became used to dosing at regular intervals, first with fenbendazole and pyrantel based wormers and later with ivermectin, moxidectin and praziquantel to keep horses free of parasites.

Despite the many brand names of drugs on the shelves of our stores, all of our equine wormers in the UK are made up from just five active ingredients. Our reliance on them has come at a cost; just like antibiotics, worms are evolving to become resistant to the drugs we have available. With no new worming drugs on the horizon we need to fiercely protect the ones we have.

Resistance
Worms have to be exposed to a chemical in order for resistance to develop, by testing first using evidence based techniques we can target these drugs to use them only where they are needed.

Worryingly there isn't a treatment for small redworm, one of the most numerous and dangerous of the horse parasites, that isn't showing some degree of resistance developing. The first signs of this are shortened egg reappearance times on a worm egg count; a product such as moxidectin with a dosing interval of 13 weeks is seeing worm infection rise sooner than expected in some areas. The second stage of developing resistance is evidenced as no/low worm egg count reduction after wormer treatment; the dose hasn't killed the worms we know are present. Small redowrm resistance to fenbendazole (Panacur) is thought to be as high as 60-80% in some areas.

As these two chemicals are the only wormers licenced to treat the encysted stages of small redworm this highlights the need to reserve moxidectin for the winter dose wherever possible unless a specific situation requires a treatment for larval cyathastomins at other times of year. For the remainder of the year we can rely on ivermectin or pyrantel (where no resistance is present) to treat adult stages of redworm when test results rise.

Target wormers and test for drug efficacy

More than ever we advocate testing for the right parasite at the right time of year and, where a wormer is required, selecting carefully and resistance testing to check it's been effective. A healthy adult horse can follow a very simple plan of testing and dosing. Worm egg count for redworm and ascarids in spring, summer and autumn, worm for the possibility of encysted redworm in the winter.

Test for tapeworm every six months. Look out for bots, pinworm, lungworm and liverfluke when signs or symptoms dictate.

Where treatment is required worm egg counts should be repeated 10-14 days after treatment and EquiSal saliva tests two months after treatment. If the count or saliva score hasn't reduced significantly then this can indicate drug resistance, providing the dose was correct for the weight of horse and the full amount was administered.

A suggested programme

Worming is only required if the tests indicate infection above a certain level. Complete the year by treating for possible encysted redworm in winter. Foals, youngsters, neglected or older horses will require more attention.

The following programme is a good basis for a healthy adult horse:

SPRING	Worm egg count for redworm and ascarids	Saliva test for tapeworm
SUMMER	Worm egg count for redworm and ascarids	
AUTUMN	Worm egg count for redworm and ascarids	Saliva test for tapeworm
WINTER	Worm for possible encysted redworm, resistance test to check drug efficacy	

Encysted stages of redworm are not mature so don't lay the eggs which are counted in the dung sample. It is important to treat with an effective product in the winter months (December to February) then you can rely on your worm count results over the next season.

Once you've got the result, what next?

An explanation will be given by the laboratory to help you decide whether to worm or not. We're not trying to eradicate all worms as this is all but impossible, we are simply aiming to keep them at an acceptable level that won't cause problems to the horse.

Your worm count result will be reported as a number of eggs per gram (epg). It's quite common for there to be no worm eggs seen and this will be reported as <50 epg. The sign < means 'less than'.

- A count of less than 200 e.p.g. is a LOW count and shows that your worming measures are working. There is no need to worm at this level.
- A count between 200 e.p.g.and 1200 e.p.g. is a MEDIUM count, the horse will need worming.
- A count over 1200 e.p.g. is a HIGH count, the horse needs worming and the worming programme also needs attention.

Because of the way tapeworm eggs are excreted, worm counts are not a definitive test for this parasite, instead use the EquiSal saliva test to determine infection levels.

Westgate Laboratories have a friendly, knowledgeable team of SQP's and the veterinary approved follow-up advice is included free of charge in their worm counts and testing service.

What else can help?

Wherever possible we should look to break the lifecycle of the worms mechanically rather than chemically. Good pasture management and animal husbandry techniques are key to helping to control your horse's worm burden:

- If possible keep horses with the same grazing companions, not constantly changing groups.
- Poo-pick as much as you can, at least twice a week to keep parasite levels down.
- Keep stables, buckets and communal areas clean. Disinfect from time to time.
- Rest and rotate grazing and don't overcrowd fields.
- Cross graze pasture with other species eg. sheep.
- Keep new horses separate until tested and treated accordingly.
- Don't worm and move; after worming ensure horses stay on the same pasture for a few days to help slow down resistance.
- When first starting to use a targeted worming programme all horses should be tested, at a point when worming is due or slightly overdue, so as to get a true result.

Further help and advice is available at www.westgatelabs.co.uk