

Your Horse editor Imogen gets a crash course in faecal worm egg counts at the Scarsdale Vet Lab

NEW SERIES

PART 1
Wise up on
worms

In the first of a new series, Your Horse editor Imogen Johnson visits the **Scarsdale Vet Lab** to uncover what every horse owner should know about worming - and meets one horse who almost lost his life to worms

IMIGHT BE THE editor of an equestrian magazine, and I might have written about worming countless times, but something about the topic just won't stick with me. And I'm not the only one either, am I? With resistance becoming an ever-more pressing problem with each plunge of a wormer tube, there's clearly something we're not getting quite right. So, in the first of a new series exploring equine health issues - run in support of XL Equine's Picture of Health campaign - I spent the day with vet Kirstie Pickles at the Scarsdale Vet Lab in Derby, part of the XL Equine group.

I prepare myself for an array of petri dishes and people in white coats, and I'm not disappointed. But, before getting down to the nitty gritty science, I want to know the worming basics in their simplest form, so I can see where my understanding ends and my confusion begins.

Prevention is easy

To get started, I ask Kirstie how big the horse world's worm problem is. "Two weeks ago a horse in this area died as a result of worms, and not long before that another had to be put down. While just last week I had a call from an owner telling me their horse had diarrhoea and they could see small red worms in his tail," she says. "Despite everything we know, people are still getting themselves into situations where their pasture is heavily contaminated. They don't poo-pick enough, if at all, and they don't quarantine horses when they move on and off yards."

We all know poo-picking is important, but Kirstie tells me it's the single most important thing you can do to protect your horse from worms. "Too many people think treating for worms is the answer, but that's the biggest misconception," she explains.

Worming drugs explained

To see how much I understand, Kirstie asks me if I know the different classes of drugs used to treat worms. While I know there are four, I can't tell her the names or how the drugs all differ. Here, I realise, is the stumbling block. "When it comes to worming your horse, picking the right treatment depends on your ability to pick the right drug - not the right brand or wormer name," says Kirstie. Here are the four classes of worming drug explained:

1. BENZIMIDAZOLE

In horses this drug's called fenbendazole and there's now widespread resistance to it. Approximately 75% of cyathostomins (that's small red worms to you and I) are resistant to it. What's more, I'm interested to learn resistance to this drug is worse in the south of the country where race yards and studs have over-wormed on a large scale, for a long time. In rural Scotland, resistance is less of a problem.

Treats: Encysted small redworm larvae, large and small redworm and large roundworm.

2. TETRAHYDOPYRIMIDINE

Rolls right off the tongue this one doesn't it? The equine version of this drug is pyrantel and the good news is that in the UK, resistance to it isn't too bad. In the US however, a bizarre move saw this drug introduced in a daily in-feed wormer, leading to complete resistance. This would be like us taking a little penicillin every day to ensure we never got an infection - a surefire way to cause resistance.

Treats: Adult redworm, large roundworm and a double dose will treat tapeworm.

3. AVERMECTINS

In horses these include ivermectin and moxidectin. The latter tackles encysted worms (a job that was once shared with fenbendazole, but resistance to this drug means it's no longer useful for this).

Treats: Redworm and roundworm (ivermectin), encysted redworm larvae and roundworm (moxidectin).

4. PRAZIQUANTEL

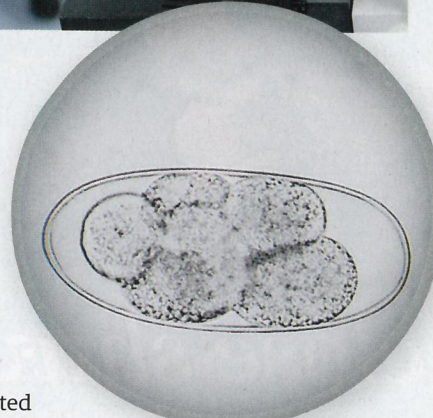
This drug tackles active tapeworms in horses.

Treats: Tapeworms only.

If you're anything like me you'll probably be thinking that worming our horses would be much easier if these drugs were easier to remember. With all the dines, trins and zoles it's no wonder we get in a muddle!



I watch as head of the lab, Emma Davies, checks a sample for eggs - then I take a look (right)



This is a cyathostomin egg under a microscope

irreversible. Worryingly, this has now happened on a farm in Scotland too."

In fact, Kirstie tells me there are only two times a year when you should worm your horse without using a FWEC. This is in autumn for tapeworm (as well as spring if you don't poo-pick regularly or there are lots of horses coming and going), and then winter for encysted redworm. This is because encysted larvae are immature and don't produce eggs, so a FWEC isn't useful.

Where to get worming advice

With the right knowledge under our belts we can make informed decisions about worming, so I'm curious to know why so many of us treat our horses in different ways, and why some people don't use FWECs at all.

"Equine vets with experience and who are up to date on the latest research are all singing from the same hymn sheet, advising people to take a more targeted approach," says Kirstie. "But some aren't as up to date." So what do you do when you feel the advice you're being given isn't right for your horse, and who should you go to for guidance?

"Being informed is great, and it's important to understand different treatments if you're going to use them. But doing a Google search, for example, isn't always the best idea because you can stumble upon all sorts of incorrect information," says Kirstie.

"If the advice you're given by your vet doesn't seem quite right, or you're concerned you're being advised to treat your horse unnecessarily, ask to discuss it with them. This way you can highlight your concerns and get answers to any of your questions."

You can also speak to a SQP. This is a Suitably Qualified Person who's allowed to prescribe wormers after undertaking significant training and passing an examination. Kirstie always advises speaking to an SQP or vet for your worming advice."

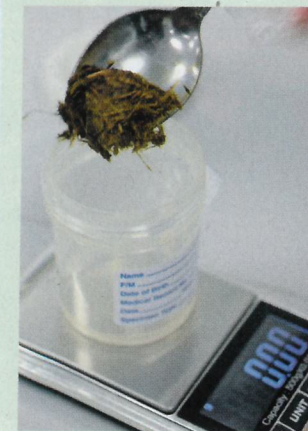
"Worm in autumn for tapeworm, and winter for encysted redworm"

SPOT THE SIGNS OF WORMS

Diarrhoea can be a symptom of a worm burden, but only when the situation has become acute (diarrhoea indicates a mass emergence of worm larvae). Other symptoms include a horse being off his food, colic-like symptoms, depression and looking dull.

HOW VETS CHECK FAECAL SAMPLES FOR EGGS

After all the talk of FWECs I want to see what happens to the samples horse owners like me send in. Kirstie introduces me to the head of the Scarsdale Vet lab, Emma Davies, who walks me through the process and I'm surprised to learn how simple it is:



STEP 2

Using a pestle and mortar (that's right people, a pestle and mortar!) the sample is ground up with the solution. Emma tells me the solution acts a 'floatation medium'. Translation: something for the eggs to float to the top of!

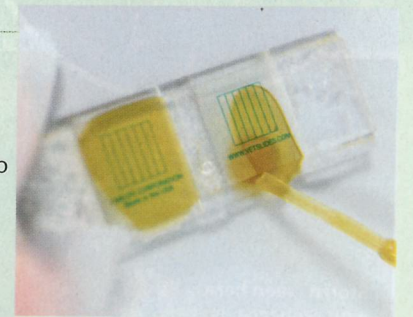


STEP 3

Next the solution is sieved using... a tea strainer. This removes all the debris leaving just the liquid and eggs (if there are any).

STEP 4

With a pipette the solution is put into a McMasters Chamber, a small device broken up into counting chambers. These chambers are used as a guide to work out the egg count.



STEP 5

Finally the solution can be looked at under a microscope. If eggs can be seen in the chambers they're counted, then multiplied by 50 to get the total egg count. For example, if there are eight eggs in the two chambers that gives you a worm count of 400 eggs per gram, which indicates that the horse needs worming.

Why FWECs are vital

"Broadly speaking there are two types of worms we need to worry about - roundworms and tapeworms," Kirstie explains. "People should only treat for adult roundworms when it's necessary." This means targeted, strategic treatment and the use of faecal worm egg counts (FWECs).

"Advice has changed over the years," Kirstie tells me. "We used to say worm with this at this time of year, and that at that time of year, but now we say don't worm, use egg counts as the mainstay of your programme."

Speaking to Kirstie about FWECs, it seems this is the method we should all be using.

though I know many people who don't.

"Some yards will insist you follow their worming treatment programme regardless of whether your horse has a positive egg count," Kirstie tells me, and I sense some frustration as she does. By worming in this way we not only waste money, but we make resistance more likely and this, Kirstie tells me, is not something we should take lightly.

To put this into perspective, Kirstie explains: "A number of sheep farms in New Zealand used so many wormers there are now sheep worms that are resistant to every type of wormer going. As a result, no flocks can be put on the land and the effect is



Vet Kirstie (left) came to Storm's aid when he suffered a potentially deadly worm burden

CASE STUDY

“Storm had a close shave”



Kirstie stops by to check up on Storm



Storm, seen here with Rebecca, is lucky to be alive

TWENTY-FIVE-YEAR-OLD Storm, owned by Rebecca Booth, knows all too well how bad worms can be. But, thanks to the fast-action of his owners and the quick work of Kirstie Pickles and the team at Scarsdale Vets, he's back to full health.

“Mum was the one who noticed that Storm wasn't quite himself,” says Rebecca, who's been the proud owner of Storm for the past nine years. “It was the day of my 18th birthday party and she'd come to check him.”

Storm was in his shelter, head down looking glum and acting out of character, so Rebecca's mum called her vet, Kirstie.

“I came out and gave Storm a physical examination,” says Kirstie. “He was dull, depressed and had a low grade fever and colic signs. He'd also not passed any droppings in the last day so I took a blood and poo sample.”

Kirstie headed straight to the lab to run the bloods and check the sample. “Storm

had an extremely low white blood cell count, which was a sign they were in his large colon fighting inflammation. I knew then that he had an acute emergence of worms, so I went back to the yard to treat him.” After treatment, Storm rallied quickly, became brighter and started to eat. “He was what we refer to as a quick responder,” says Kirstie. “But if he'd not been treated he could have become severely ill within the next 28-48 hours.”

For Rebecca this brush with death was a wake up call. “I couldn't live without Storm. Mum and dad didn't want to ruin my birthday, so all this happened without me knowing. They didn't want to worry me.

“Now things have changed on the yard. We have a worming calendar and a better poo-picking routine and we know more about worming altogether. It's lovely having Storm back to his old self - he had a close shave but he's now cheekier than ever.”

Kirstie's top 3 worming tips

1 Get poo-picking!

We might not like it, but it's not optional - so grab that scooper and poo-pick like there's no tomorrow!

2 Work together

If your yard has always routinely treated

for worms without using FWECs, discuss this option with your yard manager to see if they'd be willing to change. Getting a worm count programme in place works well on yards, saves owners money

and ultimately helps to prevent resistance.

3 Secure your yard

Any new horses to your yard should be quarantined and tested and wormed as necessary before joining a new group of horses.



NEXT MONTH

Our new series runs in support of XL Equine's Picture of Health campaign. Next month we investigate how

well we're protecting our horses when we leave our yards.

● Find out more at www.xlequine.co.uk