

Working together is the way forward

The Irish Equine Veterinary Association welcomes new legislation to encourage proper use of worm treatments and prevention in horses

THE concerns about equine anthelmintics (wormers) not being available by means of over-the-counter sales from January 2022, in line with the new European Union regulations, was highlighted in last week's *The Irish Field* in an article by Mark Costello.

The Irish Equine Veterinary Association recognises that this seems like a huge change for horse owners, and understands their concerns that it might increase costs. The opposite is the situation. Currently there is a massive overuse of anti-worming products in horses which is leading to unnecessary expense, resulting in an emerging resistance problem.

Anthelmintics are as critical to equine welfare as antibiotics and, if the resistance profile to present day wormers continues unabated, in 10 years' time we will be in serious trouble.

Horse owners could be forgiven for thinking there is a huge choice of anthelmintics available, but the reality is there are only five classes of wormers in existence; benzimidazoles, ivermectin/moxidectin, pyrantel salts, praziquantel and piprazine, and each are sold under a variety of trade names.

These have been around for nearly 60 years, with no new substances on the horizon. There is significant resistance in certain farms to two of these categories, and early resistance to the others.

Traditionally, many owners have taken the view that all worms are bad, and they use a 'scorched earth' protocol to try and eliminate all parasites from their farms. This is wrong on two counts.

Firstly, it is impossible to eliminate all worms and, secondly, a low worm burden is beneficial to combat resistance to wormers. This policy, although mistaken, has worked reasonably well since the 1960s, but the parasites are evolving and the old eight- to 12-week rotational worm programme, routinely carried out between spring and autumn, is inadequate and damaging. This worked against large redworms but is not effective against the small strongyle or cyathostomin.

Expert guidance

Therefore, everyone needs expert guidance on how to prevent parasitism in their stock. Risk factors to consider include age, housing, feeding, stocking density, manure removal, predisposition (immunity/genetics, high shedders), concomitant illness/stress, geography/climate, and quality of parasite surveillance and control.

Young horses, horses with poor immunity or concurrent illness or malnutrition, are most at risk of parasitic disease. It is interesting that recent research shows only one-fifth of horses shed 80% of the parasite eggs found in a pasture.

This means that horse owners are drastically over-treating many horses, and under-treating some. Factor in the growing threat of drug resistance, and we are setting ourselves up for parasite control failure.

A better approach is referred to as strategic deworming. This involves:

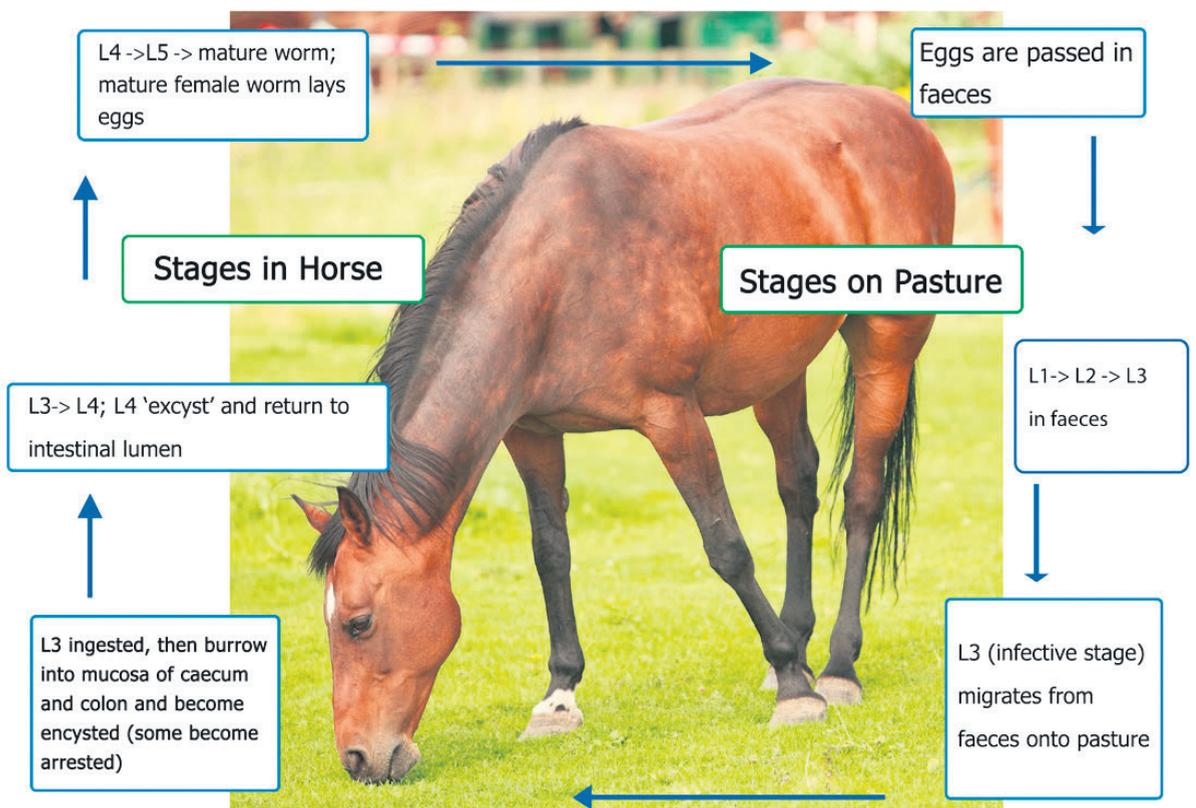
- 1) Identifying 'high egg shedders', recognising which horses are likely to be passing the largest number of parasite eggs
- 2) Identifying efficacy of each class of de-wormer against each type of parasite present on a given farm.
- 3) Pinpointing the best time to de-worm horses against a particular parasite, given the lifecycle of that parasite on a particular farm.

Veterinary collaboration

Each of these arms of a strategic de-worming programme requires collaboration with a veterinary surgeon. They can perform a test called a faecal worm egg count on a sample of the horse's droppings to quantify the number and types of parasite eggs being shed.

A quantitative analysis (one that gives a number) allows horses to be categorised as high, medium or low shedders. It is important to bear in mind that horses will shed different levels of egg numbers depending upon the time since the last de-worming treatment, and the stage of the parasite lifecycle. Therefore, this test should be repeated periodically.

Knowing which horses are shedding the largest numbers



The life cycle of a parasite



A microscopic image of a worm egg



Hugh Dillon MVB, CertESM, MRCVS.

of parasites, what parasites are common in a specific horse population, which drugs are most effective against those parasites on a farm, and how climate affects parasite lifecycles, will give owners and veterinary surgeons the tools to protect horses from parasitic disease.

Most owners are aware of redworms (cyathostomes), tapeworms (cestodes) and roundworms (ascarids), all of which have different life cycles, affect different ages of horses, and therefore require different strategies. However, how many are aware of lungworms (*Dictyocaulis arnfieldi*), pinworms (*Oxyuris equi*), strongyloides and gastrophilus (bots), which can evade current routine worming programmes? Horses out on very wet pasture where sheep and cattle have been could, on occasions, succumb to liver fluke.

Tailored programmes

Each worming programme should be tailored to the type and age of horse on a farm, considering previous problems. Basic principles dictate that horses over two years old should get a once-yearly treatment with a wormer effective against tapeworms and bots, and a treatment in late autumn against larval stages of small strongyles.

Some 80% of horses are genetically resistant to worms, clas-

sified as 'low egg shedders' and only need worming twice per year.

The other 20% of adult horses carry 80% of worm burden, are classified as 'high egg shedders', and need targeted treatment three or four times a year. In problem farms, where resistance is suspected, it is wise, under veterinary guidance, to take faecal worm egg counts after worming to monitor the effectiveness of the treatment. Special programmes need to be drawn up for foals, young stock and geriatric horses.

Climatic conditions influence worming programmes. Larvae thrive in warm, moist summers, but are desiccated by hot weather.

Very cold and prolonged winters can suppress pasture contamination. The ability to rotate the use of paddocks, avoiding overstocking, collecting droppings and letting cattle and sheep graze, all help in worm control. It is also especially important to do faecal worm egg counts on new arrivals to ensure they do not contaminate the pasture.

Veterinary practitioners spend one year studying parasitology and need to be central to every worm control programme. Unfortunately, for many years the veterinary profession has not been involved as much as it should be.

The new legislation is there to protect the efficacy of the anthelmintics we have left, and therefore equine welfare.

Selling wormers

Licensed merchants will still be able to sell wormers, admittedly with a prescription. The numbers of wormers sold will decrease significantly in line with more targeted use.

Veterinary surgeons can prescribe once for the whole year at the time of routine vaccination and dental work, or can prescribe for a stud or livery yard.

This system is already in place in France where owners have reported no increase in cost.

In the opinion of the IEVA this new legislation will be cost neutral, or even lead to a reduction in cost to the horse owner, but will be much better than the overuse of anthelmintics which often happens in a haphazard fashion and with no mon-



The Irish Equine Veterinary Association is a newly formed organisation to promote equine veterinary interests, provide continuing professional development, to prioritise equine health and welfare and act as a source of information to horse owners and the media. It is represented by members from all over the island of Ireland. Enquiries can be made to info@irisheva.ie