

Deworming Your Horse

Your vet can help you schedule deworming to keep your horses healthy and avoid resistant parasites

Overview

Deworming is the removal of internal parasites (worms). Dewormers, called anthelmintics, play an important role in controlling parasites in horses; however, either the incorrect or too intensive (frequent) use of dewormers can lead to drug resistance.^{1,2}

Although horses can and do tolerate parasite burdens, uncontrolled parasitic infections can cause problems, especially in foals, yearlings, older, pregnant, and debilitated horses. Internal parasites, can cause poor hair coat, ill thrift, pneumonia (secondary to the presence of migrating larvae), colic, perforation of the intestinal tract, and diarrhea/colitis.^{3,4}

Common Internal Parasites

More than 150 different parasites can potentially infect equids; however, only a small number of worms pose any real concern to North American horses.

The “big four” internal parasites of horses are roundworms, large and small strongyles, and tapeworms. Threadworms are not typically included in the big four because infections are typically temporary and occur only in foals.

Other common parasites of horses are pinworms and bots (the immature form of adult botflies that are found in the horse’s stomach).³

Deworming Options

Deworming is most commonly achieved by administering oral anthelmintics—drugs capable of killing or evacuating parasites. Many anthelmintic products are currently available through veterinarians, tack shops, or via the Internet.

The four major drug classes are macrocyclic lactones (ivermectin, moxidectin); benzimidazoles (fenbendazole, oxbendazole); tetrahydropyrimidines (pyrantel pamoate and pyrantel tartrate); and prazino-isoquinolines (praziquantel).²



The goal of deworming is to minimize the risk of future infections by reducing the number of infective stages in the environment.

The following information is accurate in cases without developed resistance:

Ivermectin targets all parasites except tapeworms and is effective against migrating large strongyle and ascarid larvae;

Moxidectin targets all parasites except tapeworms, is effective against some migrating large strongyle and ascarid larvae and partially effective against encysted small strongyles;

Fenbendazole targets large and small strongyles, pinworms, and roundworms and it is effective against migrating strongyle larvae and encysted small strongyles when used at double the normal dose for five consecutive days;

Oxibendazole targets large and small strongyles, pinworms, roundworms, and threadworms;

Pyrantel pamoate targets large and small strongyles, pinworms, roundworms, and when used at a double dose, will kill tapeworms (pyrantel formulations do not have action against encysted or migrating worms); and

Praziquantel targets tapeworms.²

Alternative (herbal) deworming products are available that claim to be capable of preventing and/or expelling a variety of equine internal parasites. Experts agree that these claims should be viewed with skepticism. Herbal dewormers are not FDA regulated, and researchers have neither demonstrated safety nor efficacy of any herbal supplements in well-designed clinical trials.

Parasite Control via Manure Management

Picking up feces (that can contain parasite eggs) from paddocks on a regular basis, rotating pastures (potentially necessitating the use of temporary fencing), feeding horses away from contaminated areas, and using feeders to avoid feeding on the ground are also great ways to help control internal parasites.²

Farms that compost need to ensure that the manure “cooks” at sufficient temperatures and for adequate times to avoid spreading parasite-ridden compost on the fields.⁵

Creating a Deworming Schedule

Although you can (and may still) purchase your dewormers without your veterinarians’ advice, your veterinarian can evaluate your current parasite control program, recommend modifications, and offer advice regarding fecal testing.

Fecal egg counts can help develop a targeted deworming program based on the test results and are crucial for testing drug efficacy (and identifying drug resistance). For example, determining whether a horse is shedding high or low numbers of parasite eggs, which is a reflection of the type and number of parasites in the intestinal tract, can tell you how often to deworm, and which product to use.

Although fecal egg testing is an added expense, testing will identify horses that do not need to be treated with chemical

dewormers and identify drug resistance—both of which will ultimately save owners money.⁶

Resistance

The era of deworming using calendar-based protocols has come to an end due to the development of anthelmintic resistance—the development of populations of internal parasites that are not killed following the administration of recommended doses of anthelmintic drugs. Several drugs are now no longer effective against certain equine parasites.

For example, there is a confirmed resistance of roundworms to moxidectin and ivermectin in many countries, resistance of most small strongyles to fenbendazole and oxbendazole, and some strongyle populations are resistant to pyrantel pamoate.

There are also reports of an early return of small strongyle eggs following ivermectin treatment, which most researchers suggest is indicative of developing resistance.

Other researchers suggest this is indicative of a genetic change in worm populations, but say it is different from resistance. Evidence also suggests some

roundworms and tapeworms are resistant to pyrantel pamoate.^{7,8}

Special Considerations

Horses are not equally susceptible to parasite infection, and certain subgroups of horses might need more attention than others.

Foals and young horses, horses with higher stress levels as well as horses infected with other agents (such as bacteria or viruses) are all prone to higher egg counts.

A recent study suggests that horses with Cushing's disease also tend to have higher fecal egg counts (FECs) than healthy horses. Thus, horses falling into one of these categories could benefit from a tailored approach for parasite control.^{9,10}

Key Point

Remember that it is not necessary to completely remove all internal parasites each time you deworm your horse.

The goal of deworming is to minimize the risk of future infections by reducing the number of infective stages in the environment. 🐾

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