AAEP Updates Equine Internal Parasite Control Guidelines

Courtney Heaton, Ph.D., P.A.S., Lecturer and Equine Extension Specialist
Department of Animal Sciences, Auburn University

The American Association of Equine Practitioners (AAEP) updated the internal parasite control guidelines in May 2024. A parasite control guidelines task force, overseen by the AAEP Infectious Disease Committee, reviewed and updated the past guidelines. This task force was comprised of veterinarians who are integral in their field in terms of parasitology and infectious diseases. Although many horse owners know that internal parasites are a concern for horses, anthelmintic (deworming) practices commonly used throughout the equine industry are often outdated and can contribute to the ongoing anthelmintic resistance problem.

The new guidelines urge equine owners to discontinue deworming all horses with fixed interval deworming and to stop blindly rotating anthelmintic classes. Presently, many owners deworm every 2 or 3 months with a different drug class. You can find various examples online of schedules to follow, such as "deworm in January or February with a pyrantel product, March or April with a benzimidazole", etc. Visiting online retailers such as StateLineTack and Jeffers even allow owners to purchase deworming kits for their horse for a year. **It is imperative to note that this is not recommended for numerous reasons.** Overuse and blind rotation of dewormers contribute to parasites developing drug resistance. Currently, cyathostomins (small strongyles), pinworms, and ascarids have widespread resistance to certain drug classes. Alarmingly, tapeworms have early indications of resistance to pyrimidines and praziquantel. The only effective products for tapeworm treatment are a double-dose of the pyrimidine pyrantel pamoate or administration of a praziquantel-containing product, so widespread resistance to these would be devastating for tapeworm control.

Additionally, horse owners are wasting money by deworming too frequently. Most mature horses classify as low shedders of small strongyles and only require baseline deworming once or twice a year. Shedding status is determined based on a fecal egg count (FEC) to determine if a horse is a low (<200 eggs per gram), moderate (200-500 epg), or high (>500 epg) shedder. Shedding status can vary horse to horse, with some horses shedding eggs at a higher rate during times of stress or if they are older. Younger horses are also known to have higher worm counts and require more frequent deworming until they develop a natural immunity to ascarids. By deworming at a baseline rate with a product that works for your property, selected horses that may require additional deworming can also be targeted.

Fecal egg counts can also be utilized to perform a reduction test (FECRT or fecal egg count reduction test) to determine what is an effective dewormer for your herd. This entails conducting a pre-treatment FEC, administering an anthelmintic product, and then performing a FEC 14 days post-treatment. In cases where egg counts are fewer than 40 eggs/horse, confidence intervals cannot be calculated, and single horses are being assessed, a simple formula can be used: (pre eggs counted – post eggs counted)/(pre eggs counted) x 100%. In these cases, strongyle and ascarid eggs should be reduced by more than 95% at 14 days post-treatment to be considered effective. A lower percentage of reduction would indicate resistance of those parasites to the given drug class, so a different drug class should be utilized.

The benefit of performing a FEC is that you can determine

Table 1. Drug Classes Approved in the United States with Commercially Available Examples.

Drug Class	Commercial Examples
Benzimidazoles *(Fenbendazole, Oxibendazole)*	Safe-Guard, Panacur, Anthelcide EQ
Tetrahydropyrimidines *(Pyrantel)*	Strongid, Exodus, Equistrength
Macrocyclic Lactones *(Ivermectin, Moxidectin)*	Quest, Zimectrin, IverCare, Bimectin
Isoquinoline-Pyrozines* *(Praziquantel)*	Quest Plus, Zimectrin Gold, EquiMax

**In conjunction with a macrocyclic lactone product.*

your horse's strongyle shedding status, egg reappearance period, and the relative types of parasites, especially in foals and weanlings; however, there are some limitations to FEC. They do not detect immature or larval stages of parasites and can miss or underestimate tapeworm and pinworm infections. They do not correlate with parasite burden, parasite involvement in clinical disease, and risk of disease or reaction to anthelmintic treatment. Despite this, FEC should be conducted to deworm appropriately. Your veterinarian is the ideal source to run a FEC and FECRT, as well as interpreting the test results and recommending the appropriate anthelmintic to use; however, if you do not have access to a veterinarian to perform these tests, there are commercially available kits, or you can purchase own equipment to perform these tests.

By practicing responsible deworming, you can save money and help reduce anthelmintic resistance in your herd and on a larger scale. Managing parasites in other ways such as picking up and composting manure and practicing rotational grazing can also help reduce your horse's exposure to internal parasites. It is important to remember that all horses will have internal parasites and no anthelmintic will treat all stages of parasites, but you can manage these parasite loads.

To view the updated Internal Parasite Control Guidelines, visit: https://aaep.org/resource/internal-parasite-control-guidelines/