



Expert Column – Why Too Much Deworming Can be a Bad Thing

Hoyt Cheramie, DVM, MS, is a member of the Merial Veterinary Professional Services team. He has expertise in performance horse medicine, is a board-certified surgeon and has teaching experience at the Virginia-Maryland Regional College of Veterinary Medicine. He has practiced in Kentucky, Louisiana, Georgia and Illinois. Dr. Cheramie earned his doctor of veterinary medicine from Louisiana State University School of Veterinary Medicine. Here, he answers a question about deworming.

Question: Can too much deworming actually be a bad thing?

Answer: While it is unlikely a horse will become ill or suffer harmful effects from being dewormed too often, in the long term, all horses' health can be compromised by the development of parasite resistance to dewormers.^{1,2}

When deworming strategies were developed in the 1960s, the protocol was simple – treat every horse on an eight-week schedule with the newly available benzimidazole anthelmintics (an anthelmintic is a medication causing parasitic intestinal worms to be expelled or killed). A dramatic reduction in mortality from parasitic disease resulted.¹ During the next two decades, as new anthelmintics became available, veterinarians recommended rotating between classes of products, but still treating every horse the same.¹

Parasites, however, responded to the chemical challenge by developing resistance. In the case of small strongyles, identified as the most prevalent parasite in adult horses today,³ there is evidence of their widespread resistance to two of the three major dewormer classes – benzimidazoles and pyrantels.³⁻⁶ Contributing to the development of small strongyle resistance is the common practice of rotating drugs, some of which are still effective against this parasite and some of which are not.^{3-5,7}

Experts say it's time to throw out these outdated deworming practices. We now know only 20 to 30 percent of horses in a herd shed about 80 percent of the worm eggs.¹ Thus, it doesn't make sense to treat every horse with the same eight-week

frequency. Once you've determined how often each horse needs to be treated, it's important to make sure you're using products that are actually working against the target parasites on your farm. These practices are often called "strategic deworming" and are a better way to manage parasites and help avoid contributing to the development of resistance¹ on your farm.

How does a strategic deworming program work? With the help of your veterinarian, the first step is to conduct a fecal egg count (FEC) on each horse, which will identify which parasites are present and which of the horses are high, medium and low shedders. Based on the results, the veterinarian will recommend how often each horse needs to be treated. Your veterinarian will also likely follow up with fecal egg count reduction tests (FECRT), used to then determine whether specific products are still effective against the parasites on your farm. Ultimately, you may find it is appropriate to discontinue the use of some products that were on your rotation calendar.

By investing time to develop a strategic deworming program and incorporating a broad-spectrum product like ZIMECTERIN[®] Gold (ivermectin/praziquantel), you will be able to manage the parasite challenge in your horse or horses. In large-scale studies, ZIMECTERIN Gold has been proven to be effective against benzimidazole-resistant small strongyles.^{3,8} ZIMECTERIN Gold was also the first dewormer approved by the FDA to effectively control tapeworms,* which have been recognized as a significant threat to the health of horses.⁹

Managing all parasites, including tapeworms, through a strategic deworming program may help save money in the long run as a broad-spectrum product may be required less frequently for some horses.¹

More information about parasites, effective deworming strategies and ZIMECTERIN Gold can be found at www.RethinkDeworming.com.

About ZIMECTERIN Gold

ZIMECTERIN Gold combines ivermectin, a leading ingredient that controls a wide variety of parasites, with praziquantel, an ingredient that specifically controls tapeworms. Together, they provide excellent equine parasite control. ZIMECTERIN Gold is approved to control more species and stages of equine parasites than any other brand, including benzimidazole-resistant small strongyles.¹¹ It controls 47 species and stages of equine parasites in all.^{10,11}

Important Safety Information

Warning: Not for use in humans. Keep this and all drugs out of reach of children. In horses, there have been rare reports of swelling and irritation of the mouth, lips and tongue following administration of ZIMECTERIN Gold. These reactions have been transitory in nature. Do not use in other animal species as severe adverse reactions, including fatalities in dogs, may result.

**Anoplocephala perfoliata*

- ¹ Kaplan RM. These ain't your father's parasites: Dewormer Resistance and New Strategies for Parasite Control in Horses. In: *Proceedings 2009. Florida Equine Institute*. Gainesville, Fla.
- ² Kaplan RM, Nielsen MK. An evidence-based approach to equine parasite control: It ain't the 60s anymore. *Equine Vet Education*. 2010;22(6):306-316.
- ³ Kaplan RM, et al. Prevalence of anthelmintic-resistant cyathostomes on horse farms. *JAVMA*. 2004;225(6):903-910.
- ⁴ Uhlinger CA, Kristula M. Effects of alternation of drug classes on the development of oxibendazole resistance in a herd of horses. *JAVMA*. 1992;201:51-55.
- ⁵ Kaplan RM. Anthelmintic resistance in nematodes of horses. *Vet Res*. 2002(33):491-507.
- ⁶ Swiderski C, French DD. Paradigms for parasite control in adult horse populations: A review. In: *AAEP Proceedings*. 2008;54:316-321.
- ⁷ Young, KE, Garza V, Snowden K, et al. Parasite diversity and anthelmintic resistance in two herds of horses. *Vet Parasitol*. 1999;85(2-3):205-214.
- ⁸ Woods TF, Lane TS, Zeng QY, Courtney CH. Anthelmintic resistance on pleasure horse farms in north central Florida. In: *Proceedings 42nd Annual Meeting of the AAVP*; 1997:88.
- ⁹ Proudman CJ, Trees AJ. Tapeworms as a cause of intestinal disease in horses. *Parasitol Today*. 1999;15(4):156-159.
- ¹⁰ Based on data provided in the FDA Freedom of Information summaries.
- ¹¹ Based on data provided on the ZIMECTERIN Gold label.

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