



We've Come a Long Way, Baby Deworming Practices No Longer in the Dark Ages

Forty years ago, Don McLean was singing “Bye, Bye Miss American Pie” on the radio, gas was 55 cents a gallon,¹ just 52 percent of American households had color television sets² and rotational deworming was considered the best and most efficient treatment for equine parasites.³ Not anymore.

“Horse owners should be saying ‘bye, bye’ to the outdated practice of calendar-based rotational deworming,” says Hoyt Cheramie, DVM, MS, equine specialist for Merial’s Large Animal Veterinary Services. “We have new science that tells us there is a better, more effective way to control parasites in horses.”

Where We've Been

In 1966, Gene Lyons and Harold Drudge introduced an equine parasite control program designed to suppress large strongyles, the most prevalent and threatening equine parasite at the time.⁴ Using information then available, they proposed a simple formula: treat every horse on the property the same -deworming every other month, year-round. They also suggested alternating between products to target all parasites.⁴

Horse owners, eager to improve their horses’ health, were excited about what were new developments and began adopting their suggestions. Then, as new drug classes came on the market, pyrimidines (pyrantel) in the 1970s and avermectin/milbemycins (ivermectin and moxidectin) in the 1980s/90s, rotating between products became even easier, making the practice widely suggested by veterinarians and a standard way of deworming among horse owners.⁵

Where We Are

Since then, we’ve learned a lot about equine parasites, their life cycles and how best to control them. Large strongyles have essentially been eradicated on well-managed farms, and parasitologists have shifted their focus to controlling small strongyles. Additionally, another important discovery is that a very small percentage of horses in a herd, just 20 percent, produce 80 percent of the parasites.³ This has made the practice of treating every horse the same as outdated as black and white television sets and 55 cent/gallon gasoline.

Instead of blindly treating all horses the same on a calendar-based schedule, parasitologists now recommend treatment plans based upon the needs of each horse.³ To develop effective plans, owners should work with their veterinarians to collect manure and conduct fecal egg counts on each horse. This test will identify which parasites are present and which of the horses are high, medium and low shedders. The results will help determine whether a horse needs treatment or not.⁶

Another important step in effective parasite control is identifying which products still work against the farm's parasites. There is evidence of small strongyle resistance to two of the three major dewormer classes, benzimidazoles and pyrantels.⁶⁻⁹ Because of this resistance, the products horse owners "rotate" throughout the year may or may not be working. Another test, called the fecal egg count reduction test, can help horse owners figure out which products should remain a part of their deworming program.

Where We're Going

Despite new science suggesting calendar-based rotational practices don't effectively control parasites, a number of horse owners continue to use these old-fashioned strategies. Results of a survey showed 52 percent of horses were on interval schedules and a majority of the participants had never done fecal egg testing.¹⁰

"We've got to help horse owners and veterinarians understand they might be compromising their horses' health and wasting resources by using outdated deworming practices," says Dr. Cheramie. "Using products, without knowing if they work, is a bad practice. We have the tools to determine which horses need which products and how often. The science of parasite management will continue to evolve, but first horse owners and veterinarians have to catch up with what we already know and become more strategic in their deworming practices."

Another important factor for horse owners to consider in an overall deworming plan is whether or not products help protect their horses against all parasites, including tapeworms. Because tapeworms have been proven to be a threat to the health of horses,¹¹ they are important to control. Selecting a broad-spectrum product like ZIMECTERIN® Gold (ivermectin/praziquantel) the first dewormer approved by the FDA to effectively control tapeworms,* will help horse owners manage parasite challenges.

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 parasite control. ZIMECTERIN Gold is approved to control more species and stages of equine parasites than any other brand, including benzimidazole-resistant small strongyles.¹² It controls 47 species and stages of equine parasites in all.^{12,13}

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*

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¹ The year 1972 from the people history. Available at: <http://www.thepeoplehistory.com/1972.html>. Accessed March 21, 2012.

² Television History – The First 75 Years. Available at: http://www.tvhistory.tv/Color_Households_64-78.JPG. Accessed April 24, 2012.

³ 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.

⁴ Drudge JH, Lyons ET. Control of internal parasite of the horse. *JAVMA*. 1966;148:378-383.

⁵ Reinemeyer C. Controlling strongyle parasites of horses: a mandate for change. In: *AAEP Proceedings*. 2009;55:352-360.

⁶ Kaplan RM, et al. Prevalence of anthelmintic-resistant cyathostomes on horse farms. *JAVMA*. 2004;225(6):903-910.

⁷ 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.

⁸ Kaplan RM. Anthelmintic resistance in nematodes of horses. *Vet Res*. 2002(33):491-507.

⁹ Swiderski C, French DD. Paradigms for parasite control in adult horse populations: A review. In: *AAEP Proceedings*. 2008;54:316-321.

¹⁰ Data on file at Merial.

¹¹ Proudman CJ, Trees AJ. Tapeworms as a cause of intestinal disease in horses. *Parasitol Today*. 1999;15(4):156-159.

¹² Based on data provided in the ZIMECTERIN Gold FDA Freedom of Information summaries.

¹³ Based on data provided on the ZIMECTERIN Gold label.

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