



Recommendations for deworming adult horses and young horses today are based on the following facts:

1. Important changes have occurred in the type of parasites that are present in horses today. Large strongyles (*Strongylus vulgaris*), also called bloodworms or red worms, are now rare. These are the parasites we were worried about when we were rotating dewormers and deworming horses more frequently. Small strongyles (cyathostomins), are now the major parasite of concern in adult horses. Ascarids (*parascaris equorum*), also called roundworms, remain the most important parasite of concern infecting foals and weanlings.
2. The small strongyles and ascarids have developed resistance to many of the dewormers commonly used, meaning these products do not work as well to get rid of the parasite burden carried in these horses. We eliminated the problem of large strongyles, but caused the small strongyles and ascarids to become resistant to them such that the traditional approach of parasite control is no longer appropriate for controlling these parasites today.
3. Individual horses vary greatly in their susceptibility to infection with small strongyles. Each horse carries different numbers of these parasites and can have different levels of egg shedding in their feces. Therefore, each horse needs a deworming program tailored to his/her individual needs. Some horses will carry higher numbers of these parasites and will shed more eggs than other horses. Horses that are higher shedders need to be dewormed more often.
4. Horses less than 3 years of age require special attention because they are more susceptible to parasite infection and are more at risk for developing disease.

Small strongyles are found everywhere in the environment, and all grazing horses are infected. However they only cause health problems in horses when infection reaches very high levels. Frequent treatments are not needed to keep low shedding adult horses healthy like they were when large strongyles were a problem. What is needed are properly timed treatments with effective products that are given at the appropriate time of the year and are based on the amount of eggs being shed in the manure of individual horses.

So how do we determine what dewormers to use and how often an individual horse needs to be dewormed?

Monitoring fecal egg counts in each horse will guide our decisions in deworming protocols. We collect a small amount of manure and count the number of eggs present in a measured amount of that sample. If the number of eggs is below a certain number, we skip deworming that horse at that time, and recheck them in three months. If the egg count is too high, we deworm that horse with ivermectin (this product is still known to be the most effective in eliminating the small strongyles and ascarids). Two weeks after deworming, we check a fecal again on that horse to make sure we have reduced the egg count by 50%. This tells us either that our dewormer was effective in eliminating the parasites or that it wasn't and a different product should be used.

Due to the life cycle of small and large strongyles and ascarids, **ALL** adult horses need to be dewormed twice a year regardless of their egg counts, which is spring and fall, using a product containing ivermectin.

Most adult horses only need to be dewormed at these two times, but it is important to know we can **ONLY** make this decision if we are checking egg counts in manure in between these two times. If fecals are **NOT** being monitored in these horses, then they still need to be dewormed every 3 months throughout the year if using an ivermectin product. Tapeworm eggs are not shed in manure consistently and can be missed in any one given fecal sample. Therefore, we recommend deworming for tapeworms in the late fall, after the first freeze for all horses. Products used for tapeworms contain both praziquantel and usually ivermectin, such as Zimectrin Gold and Equimax.

For foals, weanlings and yearlings, monitoring egg shedding by fecals is not recommended. During the first year of life foals should receive a minimum of four deworming treatments. The first deworming should be done at 2-3 months of age, and a benzimidazole drug, such as Panacur, is recommended to ensure efficacy against ascarids. Second deworming is recommended just before weaning

(approximately six months of age). An extra treatment can be justified before weaning if the time period between the two treatments exceeds 3 months. Ideally, at weaning a fecal is recommended to determine whether parasite burdens are primarily strongyles or ascarids, to help determine what type of deworming product should be used next. Third and fourth treatments should be considered at 9 and 12 months of age, respectively, and should be an ivermectin product. Tapeworm treatment should be included for one of these latter treatments. Fecal egg counts are then performed yearly. Yearlings and two year olds should continue to be treated as “high” shedders, and receive about three to four yearly treatments with efficacious products.

It is important to note that organic or herbal dewormers sold over the counter that claim to be effective in eradicating parasites are not FDA approved, and therefore, have not been tested for efficacy in formal controlled studies. This means the manufacturers can make claims on the label that are not necessarily accurate, and these products may not be working.

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