



Equine Fecal Testing and Deworming Recommendations

Why the Change in Deworming Protocol?

Over the past several years, the veterinary profession in general has been moving away from traditional rotational deworming schedules and has been increasingly recommending the use of fecal egg counts to identify those horses that require more frequent deworming. Partly, this change has been driven by an increased awareness that a majority of mature horses are able to control parasite populations naturally, and that therefore these individuals don't need to be dewormed as often. More importantly, this change is being recommended to preserve the effectiveness of the dewormers that we have available to us. There are no new dewormers in product development, and haven't been any for 25 years. The cost of bringing a new product onto the market is prohibitive, and if a new product were to be developed it would likely be extremely expensive, at least initially. So just as we should not overuse antibiotics to prevent the development of resistant bacteria, we should not overuse dewormers to avoid the development of resistant parasites. If the use of dewormers is minimized, however, it is necessary to **monitor individuals by means of quantitative fecal egg counts AND to utilize smart pasture and group management.** If you choose to continue a "blind" rotational deworming program, you are not doing anything 'wrong', and in the near term that approach will likely remain effective. However, the cost of quantitative fecal egg counts (FEC) has come down, and it is smarter in the long run to preserve the tools we have to fight internal parasites than it is to blindly overuse them and possibly make them useless.

It is important to remember that these recommendations for individualized deworming only applies to ADULT horses. **Weanlings (age 2- 12 months) still need to be dewormed monthly, alternating between Pyrantel Pamoate (Strongid) and Ivermectin.** This is to eliminate round worms that have a shorter life cycle and can be a cause of colic in weanlings. Additionally, when you are deworming a large group, **all horses sharing a pasture should be dewormed at the same time, ideally on the same day, to be fully effective.**

What is Fecal Egg Count?

This is a diagnostic test performed by a veterinarian/technician to determine the number of parasite (worm) eggs contained in 1 gram of feces of an individual horse. Horses are categorized in to high, medium, and low shedders. Each horse's immune system varies in its ability to fend off parasites (i.e. horses with a higher parasitic burden tend to shed more parasite eggs in their manure). Depending on the category, your veterinarian will recommend an individualized deworming protocol for your horse in which low shedders require deworming less often than horses that shed a high number of parasite eggs. Ideally, a fecal egg count (FEC) should be done in the SPRING and FALL, prior to deworming, as egg/larva shedding fluctuates seasonally. At a minimum, one FEC should be done on each horse each year.

Other ways to reduce worms on pastures:

Pasture maintenance is KEY. Larva shed in feces are easily killed by hot, dry conditions (desiccation) which is why dragging your pasture is recommended to break up manure piles and expose to heat and sunlight. Avoiding overcrowding and pasture rotation help dilute the number of larva on a pasture. For small paddocks, removing manure can also be effective. Once horses are categorized by their FEC, grouping high shedder together can reduce shedding on multiple pastures and re-infecting other lower shedding individuals. **Additionally, horses residing in the same pasture should be dewormed on the same day.**



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What are the recommended Fecal Egg Counts (FECs)

- 1) Recommended for **ALL ADULT HORSES: EARLY SPRING (March/April) and END OF FALL (Sept/Oct)**
 - a. *Samples must be taken at least 2 months since last deworming (3 months if Quest given last) for accurate results*
- 2) Any new horse to the farm- preferably prior to being put on pasture
- 3) Horses with poor body condition or hair coat

Alternatives to testing individual horses on large farms would be to test random samples obtained from the pasture. However if the fecal egg count comes back high, individual horses should be tested.

Procedure for collecting a sample:

1. Place 1-2 fresh (less than 12 hours old) fecal balls in a plastic baggie.
2. Place horse's and owners name on baggie and place in the refrigerator until it is delivered to the veterinary clinic.

Sample Deworming Protocol based on Fecal Egg Count:

Month	Low Shedders	Medium Shedders	High Shedders
April <i>(before pasture turnout)</i>	Ivermectin + Praziquantal or Moxidectin + Praziquantal	Ivermectin + Praziquantal or Moxidectin + Praziquantal	Ivermectin + Praziquantal or Moxidectin + Praziquantal
June/July		Pyrantel Pamoate or Fenbendazole	Pyrantel Pamoate or Fenbendazole
September			Ivermectin + Praziquantal or Moxidectin + Praziquantal
November <i>(after the 1st hard frost)</i>	Ivermectin + Praziquantal or Moxidectin + Praziquantal	Ivermectin + Praziquantal or Moxidectin + Praziquantal	Ivermectin, Moxidectin, Pyrantel, or Fenbendazole

Products:

Ivermectin - Zimectin, Equimectrin, and Rotectin 1; **Ivermectin w/ Praziquantil**: Equimax, Zimectin Gold

Moxidectin- Quest, Quest Plus (w/Praziquantil)

Pyrantel Pamoate- Strongid and Rotectin 2

Fenbendazole- Panacur and Safeguard