



ADVANCES IN EQUINE DEWORMING

Fall 2011

Over the past couple of years, parasitologists have discovered that deworming on a routine basis could be leading to resistant populations of worms making our dewormers less effective.

To combat this problem we are taking a more **one on one** approach and treating each individual horse based on their worm burden; instead of prescribing the same dewormers to every horse, regardless of worm burden. This might sound familiar to any of you who have dogs or cats. Very similarly, we collect feces, examine it under a microscope (fig.1) and count the number and type of eggs present.

McMasters fecal egg count

- A McMasters is performed by suspending 1 gram of feces in fecasol solution. The large particles are removed through a fine mesh cloth and the remaining solution is examined under the microscope (fig. 1)
- The current recommendations are to do fecal exams twice a year, fall and spring at time of vaccination.
- Your horse will be classified as a low, moderate or high egg shedder based on the results of the fecal.
- These numbers typically coincide with your horses' age, nutritional status, stocking densities on the farm, manure removal, rotation of pastures, etc.



Figure 1: microscope to identify and count eggs

Classification	Low shedder	Moderate shedder	High shedder
Eggs per gram	< 150 eggs per gram	150-500 eggs per gram	>500 eggs per gram
*Frequency of deworming	Spring & Fall	Spring, Fall and Winter	Spring, Fall, Summer and Winter

*Based on your horses' worm burden, your veterinarian will choose the appropriate dewormer to use and the frequency of deworming.

Fecal Egg Reduction Test (FERT)

- Your Veterinarian may recommend a FERT if your horse has a history of being a high shedder or if there is suspicion of resistance to a dewormer in your horse or farm.
- A Fecal is performed prior to deworming and 14 days post deworming to determine if there is resistance to a dewormer in a particular horse.

Managing your farm

- If you compost fecal waste wait 6 weeks before spreading on your pastures.
- Drag your pastures during the summer months when temperatures are above 90°F for several days in a row.
- Rest pastures for 6 weeks if you drag your pastures during cooler temperatures.

Equine Parasites

Small Strongyles (Cyathostomes)

- Resistance is becoming a huge problem!
- Infestation can lead to weight loss, diarrhea and colic
- Found in the large colon
- They have a unique life cycle that allows them to live in the gut wall during unfavorable weather conditions, extreme cold or heat. These are encysted worms.
- There are only two dewormers on the market that can kill the encysted strongyle
 - **Quest (moxidectin)**: administered as a single dose.
 - Not for usage in Foals less than 6 months of age
 - Avoid usage in donkeys and miniature horses
 - **Panacur (fenbendazole)**: administered as a double dose and given once a day for 5 days.

Large Strongyles

- Found in the large colon
- Treated effectively with ivermectin

Ascarids (round worms)

- Found in the small intestine
- Eggs can survive extremes temperature
- **Commonly found in foals less than 6 months of age**
 - Recommend starting treatment at 8 weeks of age
 - Repeat treatment every 6 weeks alternating between Strongid, Panacur and Oxibendazole (doses are based on weight)

- Infestation can lead to unthriftiness and lack of energy

Pinworms

- Found in the terminal portion of the large colon
- Responsible for “itchy tail”
- Treated effectively with Ivermectin, Strongid, Panacur and Quest

Bots

- Found in the stomach
- Can cause gastritis in some horses
- Treated effectively with ivermectin and moxidectin

Tapeworms

- Found in the small intestine or cecum
- Treated with praziquantel (Equimax and Ivermectin Gold contain both ivermectin and praziquantel, Quest Plus contains moxidectin and praziquantel)

Interesting Tidbits –

- 50% of worms are **resistant** to Strongid paste when administered to a mature horse as a single dose.
- 97% of worms are **resistant** to Panacur (fenbendazole) paste when administered to a mature horse as a single dose.