



## DEWORMING FOALS

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Horses of all ages are affected to one degree or another by internal parasites. Foals are born free of parasites and are often exposed to parasites within the first few days of life.

The first parasite likely to be encountered by a foal is the intestinal threadworm (*Strongyloides westeri*). Foals may become infected with this parasite after nursing milk from the mare that may contain larvae or by penetration of larvae through their skin. The primary medical condition associated with infection of foals with *S. westeri* is chronic diarrhea. Routine deworming of the broodmare during pregnancy and strategic deworming at the time of foaling will decrease the transmission of *S. westeri* larvae to the foal.

One of the most important and potentially dangerous parasites that a foal will encounter early in life is the roundworm or ascarid (*Parascaris equorum*). Adult ascarids may reach 15 inches in length and live in the intestinal tract of young horses (i.e. less than 2 years of age). Eggs produced by adult ascarids are passed out in manure. The complex life cycle of this parasite begins when infective eggs are ingested by a foal. Larvae that hatch from the ingested eggs burrow through the wall of the small intestine and migrate through veins into the liver, heart and lungs. Larvae in the lungs are eventually coughed up and swallowed. The larvae

complete the life cycle when they develop into adult ascarids in the intestine and begin to produce many thousands of eggs per day.

Ascarid eggs can survive for years under most environmental conditions. As a consequence, a majority of equine facilities will have ascarid eggs in pastures, outdoor runs and stalls. Foals and other young horses housed in such facilities will have ample opportunity to ingest the eggs.

Medical problems associated with ascarid infections include damage to the liver and lungs secondary to larval migration, which may lead to pneumonia, and obstruction and possibly even rupture of the intestinal tract by adult ascarids. Clinical signs associated with ascarid infections in foals are poor weight gain, unthriftiness, rough hair coat, pot-belly appearance, nasal discharge, cough and mild to severe colic.

Other parasites that foals and other horses on the farm will encounter include strongyles (both large and small varieties), bots, lungworms, pinworms and tapeworms.

Foals will eventually develop a natural resistance or immunity to threadworms by about 3 months of age and to ascarids by 6 months to 2 years of age. No age-related immunity develops to the other types of equine internal parasites.

Significant and potentially life-threatening problems may occur in foals secondary to parasite infections. As a consequence, it is strongly recommended that all foals be dewormed initially at 1 to 2 months of age. Treatment should be repeated every 30 to 60 days until one year of age, at which time the now-yearling can be placed on the same deworming schedule as other horses on the farm.

There are many effective deworming compounds, or anthelmintics, that are safe for use in foals. It is important to *read the label* to determine the active ingredient of the product and understand if it is safe to use in foals. The body weight of the foal should be determined as accurately as possible and the appropriate amount of deworming medication administered for that body weight.

Deworming medications that are currently available for use in horses are classified into one of three main types as listed in the table below.

Oxibendazole and fenbendazole have been noted to have the highest efficacy against ascarids and ivermectin has the highest efficacy against strongyle parasites. Moxidectin is not recommended for use in foals less than 4 months of age. Rotation between classes of deworming medications is often recommended, but is somewhat controversial. Results of recent studies have shown that resistance to certain types of dewormers has become increasingly more common in recent years.

There is no single deworming program or strategy that is or can be recommended for all farms. Geographic location, climate, horse density, housing conditions, and other factors need to be taken into account. The parasite load of individual horses and the effectiveness of a parasite control program can be evaluated by determined fecal egg counts prior to and after deworming.

Owners are recommended to consult with their equine veterinarian to develop an effective and comprehensive parasite control program for all horses on a farm.

<b>Deworming Medication Classification</b>		
<u>Benzimidazoles</u>	<u>Pyrimidines</u>	<u>Macrocyclic Lactones</u>
Fenbendazole	Pyrantel pamoate	Ivermectin
Oxibendazole	Pyrantel tartrate	Moxidectin