

A GUIDE TO

Deworming in Five

Doses: *Maximize your horse's health
from the inside out*



MERCK
Animal Health

Safety in numbers

Panacur® (fenbendazole) POWERPAC is a larvicidal dose of fenbendazole, which is effective against encysted larvae of small strongyles, large strongyles and ascarids. This 5-day regimen is one of the safest, most comprehensive and effective methods to treat a wide variety of parasites in a wide variety of horses.

Often recommended by veterinarians in these situations:

- Once a year, especially for young horses and moderate-to-high egg shedders
- All incoming horses before co-mingling with resident horses
- Before starting horses on a daily dewormer
- Foals prior to weaning
- 10-14 days before performance event
- Debilitated or thin horses
- Chronic diarrhea¹
- Recurring colic
- Chronic weight loss¹

Ascarids are one of the most significant and potentially life threatening parasites in young horses.

¹ Tamzali Y. (2006) Chronic weight loss in the horse: a 60 case retrospective study. *Equine Vet Edu.* 18, 289-296.

Especially for foals

Panacur (fenbendazole)POWERPAC is widely recognized as the best treatment option for ascarids (roundworms), which are the most significant and potentially lethal foal parasite. Ascarid populations are developing worldwide resistance to ivermectin, moxidectin and pyrantel pamoate.²⁻⁷

- Proven to be effective against ivermectin-resistant ascarids.⁸
- Demonstrated a 99.52% reduction of ascarid eggs in treated foals.⁸
- Proven safe in foals and weanlings less than 18 months of age.
- Panacur POWERPAC's method of killing ascarids decreases the likelihood of potential side effects (endotoxic shock, impactions) which may occur following deworming foals with heavy roundworm infections.⁹

Ascarids can also threaten horses beyond the age of 18 months if these animals were not effectively dewormed as foals and have harbored an ascarid infection into adulthood.⁹



² Craig TM, Diamond PL, Ferwerda NS, et al. Evidence of ivermectin resistance by *Parascaris equorum* on a Texas horse farm. *J Eq Vet Sci* 2007; 27:67-71

³Hearn FP, Peregrine AS. Identification of foals infected with *Parascaris equorum* apparently resistant to ivermectin. *J Am Vet Med Assoc.* 2003; 223(4):482-485.

⁴Boersema JH, Eysker M, Nas JW. Apparent resistance of *Parascaris equorum* to macrocyclic-lactones. *Vet Rec* 2002; 150(9): 279-281

⁵Schougaard H, Nielsen MK. Apparent ivermectin resistance of *Parascaris equorum* in foals in Denmark. *Vet Rec* 2007;160: 439-440

⁶Lyons ET, Tolliver SC, Ionita M and Collins SS. Evaluation of parasitocidal activity of fenbendazole, ivermectin, oxiabendazole, and pyrantel pamoate in horse foals with emphasis on ascarids (*Parascaris equorum*) in field studies on five farms in central Kentucky in 2007. *Parasitol Res* 103(2): 287-291, 2008.

⁷Reinemeyer, C. Anthelmintic resistance in non-strongylid parasites of horses. *Veterinary Parasitology.* 2012; 185(1): 9-15.

⁸Reinemeyer CR, Vaala, WE. Larvicidal efficacy of fenbendazole against a macrocyclic lactone-resistant isolate of *Parascaris equorum* in foals. 2010 AAEP Proceedings.

⁹AAEP Parasite Control Guidelines. Revised 2016.

Panacur (fenbendazole) POWERPAC is extremely safe

Safety is the most important feature of any pharmaceutical product.

- Safe for every horse on your farm, regardless of age, size or body condition
- Safe for environment
- Safe for non-target species (e.g., dogs)
- No contraindications



The #1 parasite problem may be going untreated in your horse

Parasitologists consider small strongyles the #1 internal parasite problem in adult horses today:

- **90% or more of your horse's parasite burden is comprised of small strongyles.**
- Larval stages enter the horse's digestive system, burrow into the intestinal lining and form cysts. Encysted small strongyles can remain in this state for up to 2.5 years.
- Tissue stages of encysted small strongyles include early third-stage larvae (EL₃), late third-stage larvae (LL₃) and fourth-stage larvae (L₄).
- Often horses affected by encysted small strongyles have been dewormed regularly with non-larvicidal products.
- There may be no obvious clinical signs associated with low to moderate numbers of encysted small strongyles; fecal tests only monitor egg counts, and encysted larval stages do not lay eggs.
- Severe clinical signs (weight loss, colic, diarrhea and even death) may occur when large numbers of fourth-stage larvae emerge simultaneously from the intestinal wall.
- Some adult horses are more susceptible to small strongyles than others. Ask your veterinarian to perform a fecal egg count test to determine your adult horse's egg shedding status.
- Most young horses (less than 2 years of age) are uniquely susceptible and are treated as "high" fecal egg shedders.

For a dewormer to be effective in preventing the mass emergence of encysted small strongyles, it has to treat every stage.

Panacur (fenbendazole) POWERPAC is your #1 choice for control of encysted small strongyles and effectiveness against early third-stage larvae (EL₃).

Use Panacur POWERPAC in your strategic deworming program — giving a 5-day larvicidal dose of fenbendazole when your horse is likely to have the highest number of encysted small strongyles. This usually occurs at the end of the grazing season in your area — early summer in southern climates; early winter in northern climates.

When used as part of a strategically designed anthelmintic program, Panacur POWERPAC may be effective even in the face of prior fenbendazole resistance.¹⁰

Control of encysted small strongyles

Dewormer	Larval Stages		
	EL ₃ [*]	LL ₃	L ₄
Larvicidal fenbendazole Panacur POWERPAC (10 mg/kg for 5 consecutive days)	Yes	Yes	Yes
Moxidectin (Quest [®])	No	Yes	Yes
Ivermectin (Zimecterin [®] , IverCare [®])	No	No	No
Pyrantel (Strongid [®])	No	No	No

*EL₃s can account for up to 75% of the encysted small strongyle burden.¹¹

¹⁰ Blaneck M, Brady HA, Nichols WT, et al. Investigation of anthelmintic resistance and deworming regimens in horses. *The Professional Animal Scientist*. (2006) 22:346-352.

¹¹ AAEP Proceedings. 1997. Data on file, Merck Animal Health.



Panacur POWERPAC

The Science of Effective

How to administer

Panacur (fenbendazole) POWERPAC:

Administer one 57-gram syringe per 1,250-lb horse (10 mg/kg) for 5 consecutive days. This treatment is effective against:

- All stages of small strongyles, including important early third-stage larvae (EL₃), late third-stage larvae (LL₃) and fourth-stage larvae (L₄), as well as adult small strongyles
- Important early-third (EL₃)
- Large strongyles (adults and migrating larval stages)
- Pinworms
- Roundworms

Incorporate Panacur POWERPAC into your deworming strategy for a healthier horse inside and out

Deworming is only one part of the solution to parasite control. Dewormers such as Panacur POWERPAC have the best chance of success when partnered with fecal monitoring and strategic use of non-chemical parasite control strategies.



panacur[®]
(fenbendazole)
POWERPAC

Do not use in horses intended for human consumption. When using Panacur[®] (fenbendazole) Paste 10% concomitantly with trichlorfon, refer to the manufacturer's labels for use and cautions for trichlorfon. Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

For more information,
visit merck-animal-health-equine.com

