



Preventing and Treating Parasites in Your Horse

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Internal parasites cause irreparable internal damage to horses. These parasites can be extremely damaging to the horse's internal systems, causing lowered disease resistance, gastrointestinal irritation (including colic), a generally unkempt look, and irreparable lung damage. Managing these enemies is the most effective way to insure your horse's health.

This publication covers the most severe equine parasites in Oregon and the best methods of control and prevention.

Identify the offender

There are more than 150 internal parasites that are troublesome to horses. In order to recognize the symptoms of mild or chronic parasite infestation, it's best to know the signs of a healthy horse and the normal behaviors and appearance of your horse.

The most common internal parasites afflicting the horse are:

- Strongyles (bloodworms)
- Ascarids (roundworms)
- Bots

- Pinworms
 - Strongyloides (threadworms)
- See Table A (next page) for information on how these parasites affect horses.

Signs of parasite damage and detection

As described in Table A, the signs of infestation are varied. Many of these same symptoms also can indicate a greater problem. Consult your veterinarian if your horse shows any of the symptoms referred to in Table A.

In addition to visible signs of parasites, you can have your veterinarian analyze a fecal sample for egg numbers. A sample of 2–3 fresh fecal balls is sufficient to determine the egg count. For a herd count, collect samples from several (10 percent) of the animals to determine the extent of a parasite problem. A positive egg count indicates a parasite infection; deal with it according to its degree of risk to the animal(s).

Control methods

Parasite control is best approached from a management perspective. You can control parasites with a combination of techniques including farm management and chemical control.

Chemical control

Currently, rotational deworming programs are recommended for prevention and treatment. By rotating dewormers, parasites take longer to develop a resistance to the chemicals. It's important to rotate actual chemicals, not just brand names. Each dewormer is effective against specific parasite groups and may not be significantly effective against other groups; therefore, it's very important that you know the deworming compounds and their effects.

Table B describes the general effectiveness of the various classes of dewormers. Use it as a guide to selecting a dewormer.

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Table A.—Internal parasites.

Parasite	Organs Affected	Ages Affected	Symptoms	Injury
Strongyles (bloodworms)	Larvae—arteries, liver, and gut wall Adults—large intestine	All ages	Recurrent colic Rough hair coat Diarrhea Poor appetite	Retarded growth Anemia Weight loss Death
Ascarids (roundworms)	Larvae—liver and lungs Adults—small intestine	Primarily under 2 years All ages—very few	Retarded growth Rough hair coat Pneumonia Cough and nasal discharge	Pot belly Colic Death
Bots	Eggs—on hair Larvae—tongue and gums Bots—stomach	All ages Stomach ulcers	Colic	
Pinworms	Larvae—large intestine Adults—large intestine and rectum	Larvae affect all ages	Tail rubbing	
Strongyloides (threadworms)	Larvae—lungs and small intestine Adults—small intestine	Foals	Diarrhea Dehydration Weight loss Cough and nasal discharge	

Adapted from the *Horse Industry Handbook*, HIH 430, American Youth Horse Council, Inc., 1993.

Deworming programs:

When selecting a deworming program, take the following points into consideration:

- Ages and living groups of horses
- Climate (hot and dry, cool and wet)
- Pasture stocking rate (number of animals/acre/day)
- Proximity of horse to contaminated areas (where they eat, drink, graze)

These points will help you and your veterinarian determine whether your horse's repeated exposure to internal parasites is high or low, and what type of program best suits your situation.

Deworming schedules for the adult horse:

- 60-day rotation of two or more dewormers a total of six times per year

- Concentrated/rotation: deworming the same number of times and rotations per year (usually four to six); however, concentrating treatments during infective periods. Dry climatic conditions deter parasites naturally; therefore, deworming during the hot summer months is not always necessary. (This depends greatly on climatic conditions.)
- Daily: Currently only one dewormer is available for daily use. The pyrantel tartrate pellet is effective in prevention of the parasite's larval stage. It prevents the larval stage of strongyles, ascarids, and pinworms from entering the tissue. This program is, however, ineffective against bots, and should include a boticide during mid- and late-summer when bot flies are active.

Consult your veterinarian to determine the program best suited to your climate and your horse's situation.

Management

The following management suggestions are intended to complement your deworming program and continue reducing parasites.

Pick up and dispose of manure regularly—preferably away from the horses and facilities. Compost the manure before spreading it on pastures. Covering manure with plastic further reduces breeding grounds by creating temperatures high enough to destroy larva and eggs before an infestation can occur.

Pastures require mowing and harrowing to break up manure deposits and expose larvae and eggs to the environment. Remove all livestock from harrowed pasture long enough to

destroy the larvae. This may take several months (summer months are quite good for drying). Rotational grazing with other livestock also can help to break the parasite lifecycle. Horses and cattle do not share the same parasites. Therefore, this rotation is very effective. Limiting the number of horses per acre prevents overgrazing and keeps egg numbers low.

Also, consider grouping horses by age, class, or stage of production to reduce exposure to certain parasites and maximize the effect of the deworming program. At the same time, feed hay in feeders or hay mangers to prevent additional exposure to eggs and larvae due to fecal contamination. Remove bot eggs from the hair coat (legs, shoulders, and throat) to significantly reduce the bot population.

The most effective treatment for internal parasites is prevention and management. Safe, convenient deworming products and an effective management program will reduce parasites

and optimize your horse's production and performance. Local veterinarians can assist you in the design and implementation of a program that best suits your needs.

For further reading

"Control of Internal Parasites of the Horse," *Horse Industry Handbook*, HIH 430, American Youth Horse Council, Inc., 1993.

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Keeping Your Horse Healthy, EC 1472, by Eva Sestric, Karen Keen, and Linda Coates-Markle (published 1996, reprinted 2005).

Managing Small-acreage Horse Farms for Green Pastures, Clean Water, and Healthy Horses, EC 1558, by Garry Stephenson et al. (2003).

Managing Your Pregnant Mare and Her Foal, EC 1476, by Juli Ellingson and Linda Coates-Markle (1996).

Oregon's 1994 Preliminary Equine Impact Survey, EC 1477, by Angela White and Linda Coates-Markle (1996).

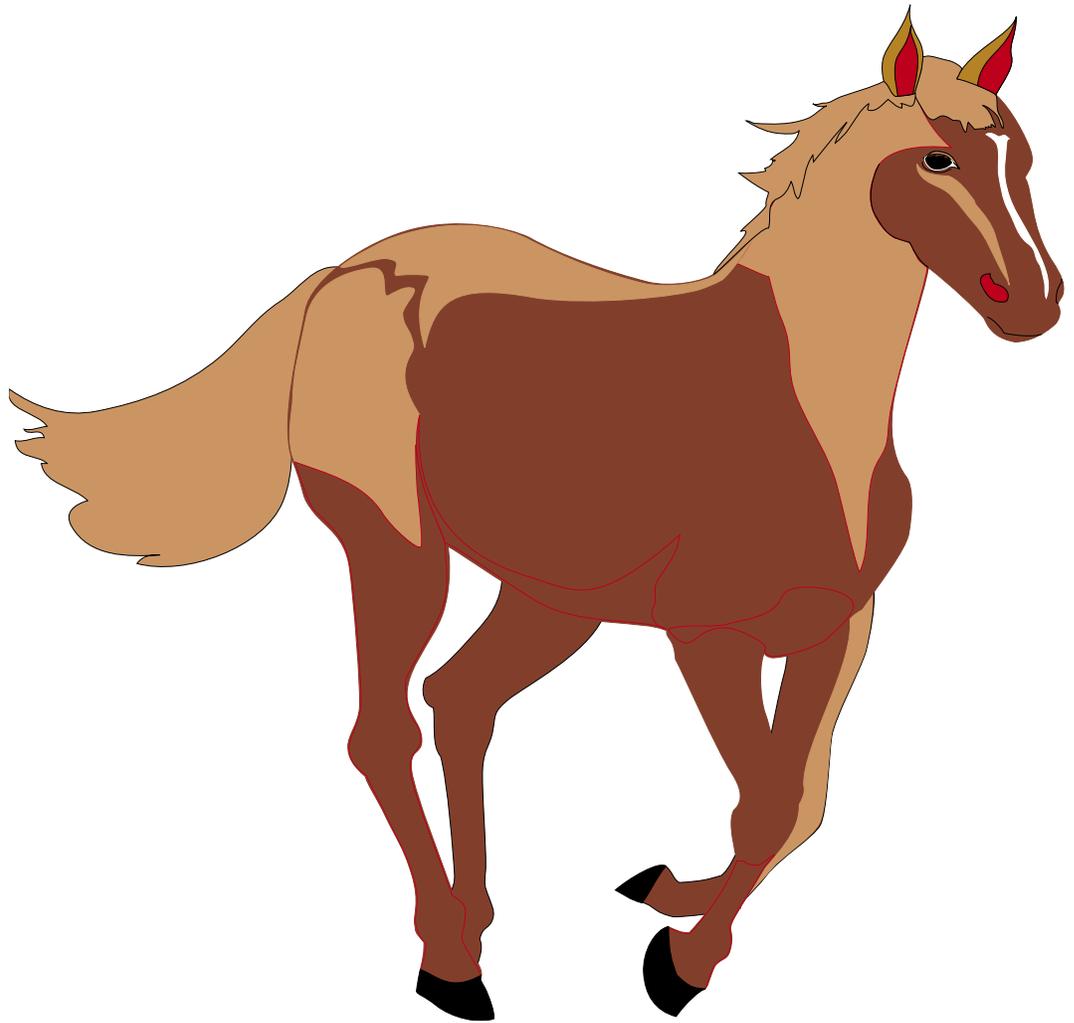
Preventing and Treating Colic in Your Horse, EC 1474, by Karen Keen and Linda Coates-Markle (published 1996, reprinted 2005).

Your Horse's Nutrition, EC 1475, by Katia Engelhardt and Linda Coates-Markle (1996).

Table B.—Dewormers and their effectiveness against internal parasites.

Chemical Class	Parasite			
	Strongyles	Ascarids	Bots	Pinworms
Avermectins: Ivermectin	95–100%	90–100%	95–100%	95–100%
Organophosphates: Trichlorfon	0	95–100%	95–100%	90–100%
Benzimidazoles: Fenbendazole Oxibendazole others	varies 65–100%	varies 65–95%	few brands	90–100%
Pyrimidines: Pyrantels Tarantyl	65–100% no adults larval stages only (all parasites)	90–100%	0	60–70%

Adapted from the *Horse Industry Handbook*, HIH 430, American Youth Horse Council, Inc., 1993. Please refer to the *Handbook* or your veterinarian for further information.



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