

PARASITE CONTROL

WAGING WAR ON EQUINE PARASITES

Internal parasites are silent killers. They can cause extensive internal damage, and you may not even realize that your animals are heavily infected. At the very least, parasites can lower resistance, rob the horse of valuable nutrients, and cause gastrointestinal irritation and unthriftiness. At their worst, they can lead to colic, intestinal ruptures, and death.

In terms of management priorities, establishing an effective parasite control program is probably second only to supplying the horse with clean, plentiful water and high quality feed. It's that important!

IDENTIFYING THE ENEMY

There are more than 150 internal parasites that afflict horses, including several major species. Among the most common and troublesome are:

- Large strongyles (bloodworms)
- Small strongyles
- Ascarids (roundworms)
- Pinworms
- Bots
- Tapeworms
- Threadworms
- Lungworms

Any or all these parasites can be present in the horse at one time, but they may be at different stages in their life cycles. This will influence the deworming program needed to combat them. Also, keep in mind that some species can lay more than 200,000 eggs a day, so parasite loads can escalate quickly.

PARASITE DAMAGE

Different parasites harm the horse in different ways. They can damage tissues and vital organs, including the major blood vessels to the intestines, lungs, liver, stomach, and intestines, as they migrate through the horse's system to complete their life cycles. They can cause obstructions and ulcerations within the horse's digestive tract, and they can also cause irritation as they lay eggs, such as with pinworms.

SIGNS OF PARASITISM

Contrary to popular belief, many horses that have dangerous parasite levels appear to be perfectly healthy. From the outside they may be fat, sleek and shiny, while on the inside the worms are doing irreparable damage. But in other horses, especially young horses, parasites can take a visible toll. Signs of infestation might include:

- Dull, rough haircoat
- Lethargy or decreased stamina
- Weight loss
- Coughing and/or nasal discharge
- Tail rubbing and hair loss
- Resistance to the bit due to mouth lesions
- Colic
- Summer sores
- Depression
- Loss of appetite
- Unthriftiness or loss of condition
- Diarrhea

FECAL EXAMINATIONS

One of the most under-utilized tools in an effective parasite control program is the fecal examination, which merely involves taking two to three fresh fecal balls to your veterinarian for laboratory analysis. This simple process can identify the specific parasites infecting a horse. Rarely are the worms themselves visible in the manure. But by counting the types and numbers of parasite eggs present in the fecal sample, your veterinarian can recommend the right deworming agents to do the job. Fecal eggs per gram counts (EPG) also tell an owner about the degree of parasite infestation on a farm or within a herd.

The fecal exam is a cost-effective follow-up to deworming to determine whether the dewormer has worked. It's good practice to do a fecal EPG count within two weeks after deworming.

THE IMPORTANCE OF ROTATING DEWORMING AGENTS

Parasites can develop resistance to many of the chemicals used to kill them. After a period, the deworming agents may therefore simply become ineffective. To prevent this, it's important to rotate classes of drugs used in your program. Be sure that you don't simply change brand names, however, since many products contain the same drugs but under different labels. Although some manufacturers claim that certain products do not require rotation, a good safeguard is to do it anyway. That way, there's no question about resistance developing. With opinions varying as to how often dewormers should be rotated, it is recommended to consult your veterinarian for guidance.

By utilizing broad-spectrum deworming agents and rotating them as recommended by your veterinarian, you should be able to rid your horse of most worms.

METHODS OF ADMINISTRATION

There are three primary ways of administering dewormers. They are:

1. Oral paste syringe
2. Nasogastric tube (tubing)
3. Feed additive

All three methods are effective. The key is that the deworming product must be given in the proper dose at the proper time, and that it is fully consumed and retained by the animal.

Deworming pastes and feed formulations have come into widespread use because of convenience and ease of administration. They are a good choice as long as the horse ingests the entire dose. (The dose must be calculated based on the horse's weight.) The problem is that some horses may find them unpalatable and spit them out.

Tube deworming, once the method of choice, is still a highly effective means of controlling parasites. The advantage of administering dewormers via a nasogastric tube is that the veterinarian can ensure that the proper dose is delivered directly to the horse's stomach. The disadvantage is that it causes the animal temporary discomfort when it is passed through the nostrils and down the esophagus into the stomach. Because of the skill required to safely insert the tube, this method of deworming should be performed only by a veterinarian.

DEWORMING SCHEDULES

The best way to set up a deworming schedule is to consult your veterinarian. Horses at different ages and stages have varying needs concerning parasite control. For example, young foals are especially susceptible to ascarid (roundworm) infestation, and may require deworming at thirty-day intervals until they build some natural resistance. Older horses turned out on a large acreage might do well on a semiannual schedule. And some owners may prefer to have their horses on a continuous control program whereby the horse is given a daily dose of dewormer.

Climatic conditions and season of year can also influence parasite levels. Your veterinarian may recommend that you concentrate deworming efforts when your horse's exposure to parasites is at its peak. Other veterinarians may prefer that you deworm at regular intervals, such as every sixty to ninety days. In any case, the goal is to keep parasite load to a minimum.

TAPEWORMS

Tapeworms are emerging as a more serious threat to horse health than previously believed.

Virtually all grazing horses risk tapeworm infection at some point in their lives, and nearly half the horses in North America have serologic evidence of an existing prior infection.

Tapeworms have been identified as prime culprits in equine colic. The most common tapeworm, *Anoplocephala perfoliata*, has been linked to spasmodic colic and ileal impaction, as well as various types of intussusceptions involving the ileum or cecum.

An estimated 80 percent of ileal impaction colic cases examined in one study were associated with tapeworms, which also played a role in 22 percent of spasmodic colic cases.

For horse owners, these latest finding in the prevalence of antibodies of *Anoplocephala perfoliata* in horses point to one thing: a need to introduce tapeworm control programs.

A COMPLETE MANAGEMENT PROGRAM

Importantly, chemical control is just one part of a total parasite control plan. Since parasites are primarily transferred through manure, good management is also key.

You should:

- Pick up and dispose of manure droppings on a regular basis (at least twice weekly)
- Mow and harrow pastures regularly to break up manure piles and expose parasite eggs and larvae to the elements.
- Rotate pastures by allowing other livestock, such as sheep or cattle, to graze them, thereby interrupting the life cycles of equine parasites
- Group horses by age to reduce exposure to certain parasites and maximize deworming program geared to that group
- Keep the number of horses per acre to a minimum to prevent overgrazing and reduce the fecal contamination per acre
- Use a feeder for hay and grain rather than feeding on the ground