Equine Parasite Control:

Deworming and Beyond

What scientists are learning about equine parasite resistance to dewormers and how to adapt

By Christa Lesh-Laometey, MA

It's a gassy valley at the foothills of the Blue Ridge Mountains, a light breeze ripples the pasture grasses. A herd of taking because they are adapted to the grazing lands. Scientists are now learning that the herd's Crawford paper (and all of the Forage Species paper overhead) are working for spikes bulging their veins in the

Life—active and peaceful—abounds around this herd of horses. It abounds inside the herd, too. Within each one of these horses, a complex community of microbes, fungi, and parasites—some of them helpful, some harmful—is at work. Some of these creatures are so small that a dozen can fit on the period at the end of this sentence. Yet collectively, they can make or break the health of their host, for better or worse, depending on how well the host's immune system can keep them in balance.

Most a horse. Can internal parasites really have a place in the harmonious pasture? And if they humble creatures, sucking the nutrients out of our beloved animals? And shouldn't we be fighting back with dewormers, anthelmintic drugs, and pasture management? Yes, we should. But we can do it more effectively, more sustainably, and more integrated, if we understand where foods diverged and why. Parasites can—and sometimes do—

Peaceful Cohabitation (When Controlled)

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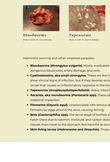
Internal Parasites: A Visual Guide



Helminths (worms) and other (meaning) parasites:

- **Strongyles (Strongylus vulgaris)**: Widely replicated in domestic horses, migrating bloodworm larvae can cause dangerous blood clots, pony strongyles, and colic.
- **Cyathostomins, aka small strongyles.** These are the most common helminth in equids today. Host horse dwell in the large intestine, but some species can migrate through the intestinal wall and encyst in the intestinal wall, causing diarrhea and colic—colic from encysting stages in the horses (gastrointestinal tract) the fatality rate can reach 50%.
- **Tapeworms (Anoplocephalidae/Paniscia).** Heavy infections are associated with ileocecal colic.
- **Ascarids (Ascaris lumbricoides/Parascaris equi).** These parasites are especially risky for young foals and can cause impaction, intussusception.
- **Pinworms (Oxyuris equi).** Unassociated with serious disease, pinworms maintain their life cycle in the colon, laying eggs around the anus, causing tail rubbing and irritation.
- **Bots (Gastrophilus spp).** The larvae of botflies, bots lay yellow eggs on horses' hair coats. The larvae hatch, are ingested by horses, develop, and attach, and the horses lick the larvae, which reside in oral tissues, then travel to the stomach. Not harmful as larvae, they might become a nuisance as adult flies.
- **Skin-living larvae (Habronema and Draschia).** These species can cause summer sores.

Resistance: Generations of Survivors

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Curbing Resistance

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Keeping Bioefficiency at Bay

Bioefficiency is a measure of how well a dewormer kills parasites. The ratio has been administered at dewormer-to-drug-resistant parasites. Bioefficiency is measured by fecal egg count reduction tests (FECRT). Bioefficiency is affected by dewormer dosage, dewormer formulation, and resistance to dewormers. Dosing, Pfizer's Equimax, Merial's Equimax, and Merial's Equimax, Merial's Equimax, Merial's Equimax,