Limit Resistance and Reinforce Your Expertise Through Comprehensive Parasite Control

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Think back to the time when *Strongylus vulgaris* (large blood strongyle) was the most important parasitic pathogen of adult horses. During this same time, the equine medical community developed the traditional parasite control recommendations involving rotational use of anthelmintics at regular intervals.

A lot has changed since then. Unfortunately, old habits die hard, and the conventional practice of widespread, frequent use of anthelmintics, often without the guidance and knowledge of a veterinarian, has contributed to today's growing problem of drug resistance in our equine populations.

There are not currently any resistance-breaking classes of dewormers on the horizon for use in horses, so it is crucial to encourage horse owners to work with you to customize parasite control programs. The challenge is to offer (and charge for) a comprehensive parasite control program that incorporates fecal egg count (FEC) testing into a farm-wide, herd-based program that combines chemical and non-chemical control strategies.

Structuring a parasite control program

The AAEP Parasite Control Guidelines (revised 2019) suggest the following goals for a parasite control program:

- Minimize the risk of parasitic disease in the individual equid
- Control parasite egg shedding and environmental contamination
- Maintain efficacious drugs and avoid further development of anthelmintic resistance as much as possible

When providing a comprehensive approach to parasite control, crucial considerations include understanding key parasite life cycles, the mode of action and efficacy of the three major classes of equine anthelmintics (benzimidazoles, tetrahydropyrimidines and macrocyclic lactones), and the advantages of the various fecal egg counting methods available.

To help clients understand your recommendations and to help gather needed information, talk with clients about three key items: the parasites that cause problems on their particular farm, the role of FECs in selecting appropriate anthelmintics for their operation and which non-chemical

parasite control strategies are realistic. This approach is crucial to prolonging the efficacy of the three major drug classes currently available.

Remind clients that the overall goal of a strategic parasite control program is not to eradicate all parasites from a particular horse. Instead, the goal is to control fecal egg shedding and limit parasite infections so animals remain healthy with no evidence of clinical disease.

The crucial role of on-farm visits

Although FECs are accepted as an important part of an evidence-based parasite control program, they are unlikely to become widely accepted if they are too expensive or offered only as random diagnostic tests. This provides you the opportunity to market your extensive knowledge along with diagnostics. You enjoy the distinct advantage of being familiar with the resident horse population and the local farm's management practices. If you haven't already, now is the time to schedule an on-farm visit to reframe the parasite control discussion with clients.

Since the majority of parasites may not be in the horse but rather in the horse's environment, fecal samples play only a partial role in determining deworming needs. Seeing the farm in person allows you to evaluate ways to reduce parasite loads on pasture and break the transmission cycle.

Consider providing a "physical exam" of individual farms using a simple questionnaire to capture information about management practices, herd demographics and deworming history. Evaluate the farm in terms of stocking density, size and overall condition of pastures and/or paddocks, as well as labor available to help decide which non-chemical parasite control strategies are realistic for that particular operation. All of these elements can impact parasite burdens and should be assessed prior to making deworming recommendations.

Take-home message

Now more than ever it is important for you to reframe the discussion on parasites with horse owners—not only to preserve the efficacy of the dewormers we have, but also to continually position yourself as a resource to owners in all facets of their horse's care.

For more information or to receive a parasite surveillance farm history sheet, please contact your Merck Animal Health sales representative.

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(Image courtesy of Merck Animal Health.)

Top 10 Non-Chemical Parasite Control Tips

Non-chemical control strategies are part of a comprehensive parasite surveillance program. By making at least one annual parasite control trip to the farm and discussing these strategies, you can help owners assess which ones might be realistic for their individual farms. Tips for reducing parasite egg and larvae buildup in the environment include the following:

1. Cross-graze pastures with other ruminant species, preferably sheep
2. Keep pastures mowed
3. Don't overstock pastures or allow pastures to become overgrazed
4. Remove manure from pastures and paddocks at least twice weekly
5. During hot, dry weather, harrow or rake pastures to disperse manure piles and expose larvae to sun. Rest the pasture a minimum of four weeks after harrowing
6. Harvest a hay crop off pastures
7. Plant an annual crop such as winter wheat
8. Feed hay and grain in raised containers and not directly on the ground
9. Clean water sources regularly to prevent fecal contamination
10. Compost manure. Properly composted manure will kill strongyle larvae and many ascarid eggs