

Make Concurrent Deworming a Herd Must-Have

A strong anthelmintic approach, along with proper animal and forage management, are important to the overall stewardship of cattle.

by **Harold Newcomb**

Parasite control should be the cornerstone of your animal health program because parasites negatively impact the overall health and performance of cattle, says Harold Newcomb, D.V.M., technical services manager, Merck Animal Health. They decrease feed intake, reduce average daily gain, lower milk production and impair the immune response to vaccines and diseases.

To help make people aware of parasite resistance, the U.S. Food and Drug Administration (USDA) recently announced it is requesting that animal drug companies voluntarily revise the labels of drugs intended to treat certain internal parasites in livestock and horses. Merck Animal Health shares the USDA's concern and the need for transparency as it relates to parasite resistance.

For more than a decade, Merck Animal Health has maintained the world's largest Fecal Egg Count Reduction Test (FECRT) database to monitor field use efficacy of anthelmintics approved for use in cattle in the U.S. today. The results document that certain classes of dewormers are not as effective today as they have been in the past.

Ninety percent reduction in egg count sought

The FECRT protocol includes taking 20 samples the day of the deworming followed by another 20 samples taken 14 days after the treatment. In the samples taken 14 days after the treatment, at least a 90% reduction in egg content should be observed in order to know the anthelmintics are working properly. From 2009 to 2018, results from 721 trials and more than 24,000 samples, representing more than 24 states, have been compiled. See Table 1.

Both the endectocide pour-on and the endectocide injectable products performed well below the 90%

threshold that is critical to ensuring proper parasite management, including:

- In more than 2,700 fecal samples from cattle that were treated solely with an endectocide pour-on product, a mere 51% efficacy was attained. Nearly half of the eggs remained 14 days after receiving the respective pour-on.
- When evaluating the efficacy of more than 4,400 fecal samples that were treated with an endectocide injectable pour-on, only a small uptick in the effectiveness was recorded — specifically, 57.4%.
- Various fenbendazole formulations were evaluated — all of which contain the active ingredient fenbendazole. In more than 7,500 fecal samples tested, an efficacy of 98.7% was accomplished. While these results are greater than the baseline of 90%, adding a second dewormer to concurrently treat cattle resulted in the highest percentage. When analyzing more than 2,700 fecal samples treated with a combination of fenbendazole along with either a pour-on or injectable endectocide, an efficacy of 99.1% was achieved.

A multi-pronged approach

For maximum efficacy, take these steps:

Concurrently use two or more classes of anthelmintics. Not only does a concurrent deworming program most effectively control internal parasites, it also ensures a sustainable anthelmintic program that helps keep resistance to a minimum.

Use on of the three classes of dewormers approved for use in U.S. cattle — benzimidazoles, endectocides or macrocyclic lactones, and imidazothiazoles. The two most commonly-used are endectocides and benzimidazoles.

Properly estimate animal weights so a full dose of dewormer is used. Administering less than the recommended amount may not fully treat the parasites.

Conduct a FECRT annually to monitor efficacy.

Consult your veterinarian for assistance in diagnosis, treatment and control.

Altogether, these anthelmintic best practices, coupled with proper animal and forage management, are important to the overall stewardship of cattle. **HW**

Editor's Note: This article was provided by Merck Animal Health.

Table 1: Fecal egg count reduction test database* efficacy summary

Treatment	Percent efficacy
Endectocide pour-on	51.0%
Endectocide injectable	57.4%
Various fenbendazole formulations	98.7%
Fenbendazole in combination with various endectocides	99.1%

*Merck Animal Health maintains the world's largest FECRT database to monitor field use efficacy of anthelmintic classes. Through 2018, there were 24,186 samples analyzed — 12,171 pre-treatment and 12,015 post-treatment.