

Cow Worming With Tramisol® and Its Effect on Weaning Weight

By

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Until recently, recommendations for worming cows was only made when fecal worm egg counts reached or exceeded 200 eggs per gram. Recommendations in the Midwestern part of the country are being changed based on research conducted at the U.S. Meat Animal Research Center (MARC), Clay Center, Nebraska, and the University of Nebraska's branch station located at North Platte. Scientists at these two facilities have shown an improvement in weaning weight of about 15 pounds when only cows were wormed that were shedding 15-20 eggs per gram.

With the exception of individual cases where therapeutic levels of parasitism exist, most cows in North Dakota live with a normal low level worm burden that has not been considered to be of economic importance. This adult worm burden has been measured based on fecal egg counts and ranges from 12-20 eggs per gram of feces.

To test the economic benefit from worming in terms of weaning weight, eighty-three Angus X Hereford crossbred first calf heifers and their crossbred Milking Shorthorn X Angus X Hereford and Angus X Hereford calves were randomly assigned to either a wormed or control group.

Only the cows were wormed in the treated group. Following spring processing and worming with Tramisol® (levamisole phosphate) at the rate of 2 ml/100 lbs. body weight subcutaneously on May 18th, the cow/calf pairs were turned out on crested wheatgrass pastures. Using the recommended dosage rate, worming cost per cow was \$2.05. On July 15th the pairs were moved to native range pastures where they remained until November 1st.

Weight gains were monitored throughout the growing season and cows were fecal sampled at each weigh period.

Information from the investigation has been summarized in Figures 1-3, and in Table 1.

Discussion:

The number of eggs being shed in the control group drops rapidly from a high of 169 eggs per gram (epg) to 21.1 epg by July 15th, obviously, not much different than the group wormed with Tramisol®. (See Fig. 2).

This rapid reduction is known as anamnestic response by the animal to a new flush of worms. During the winter months the fourth stage larvae of *Ostertagia ostertagii*, one of the major stomach worms found in North Dakota cattle, migrates into the intestinal mucosa and emerges in the spring developing into an adult intestinal worm. Normal resistance by the animal naturally lowers the worm burden to a tolerable level.

Summary:

No advantage was shown for spring worming of cows in this investigation. Average daily gains dropped progressively through the course of the grazing season as forage quality deteriorated.

Calf gains fluctuated slightly throughout the growing season, but were equal when weaned on November 1st.

A second phase of this investigation evaluates the effect of worming cows before spring turnout and calves in mid-July. Data collection in this current study will not be completed until the first of November.

Table 1. Summary of Cow and Calf Gains among Wormed and Non-Wormed Cows

	Tramisol® Wormer 1/	Control
Cows:		
No. Head	42	41
Days on Trial	167	167
Initial wt. lbs., May 18 th	812	787
Final wt. lbs., Nov. 1 st	977	953
Gain, lbs.	165	166
ADG, lbs.	.99	.99
Calves:		
No. Head	42	41
Days on Trial	167	167
Initial wt. lbs., May 18 th	141	144
Final wt. lbs., Nov. 1 st	450	449
Gain, lbs.	309	305
ADG, lbs.	1.85	1.82

Figure 1: Average Daily Gains between Routine Weighing Intervals for Wormed and Non-Wormed Cows.

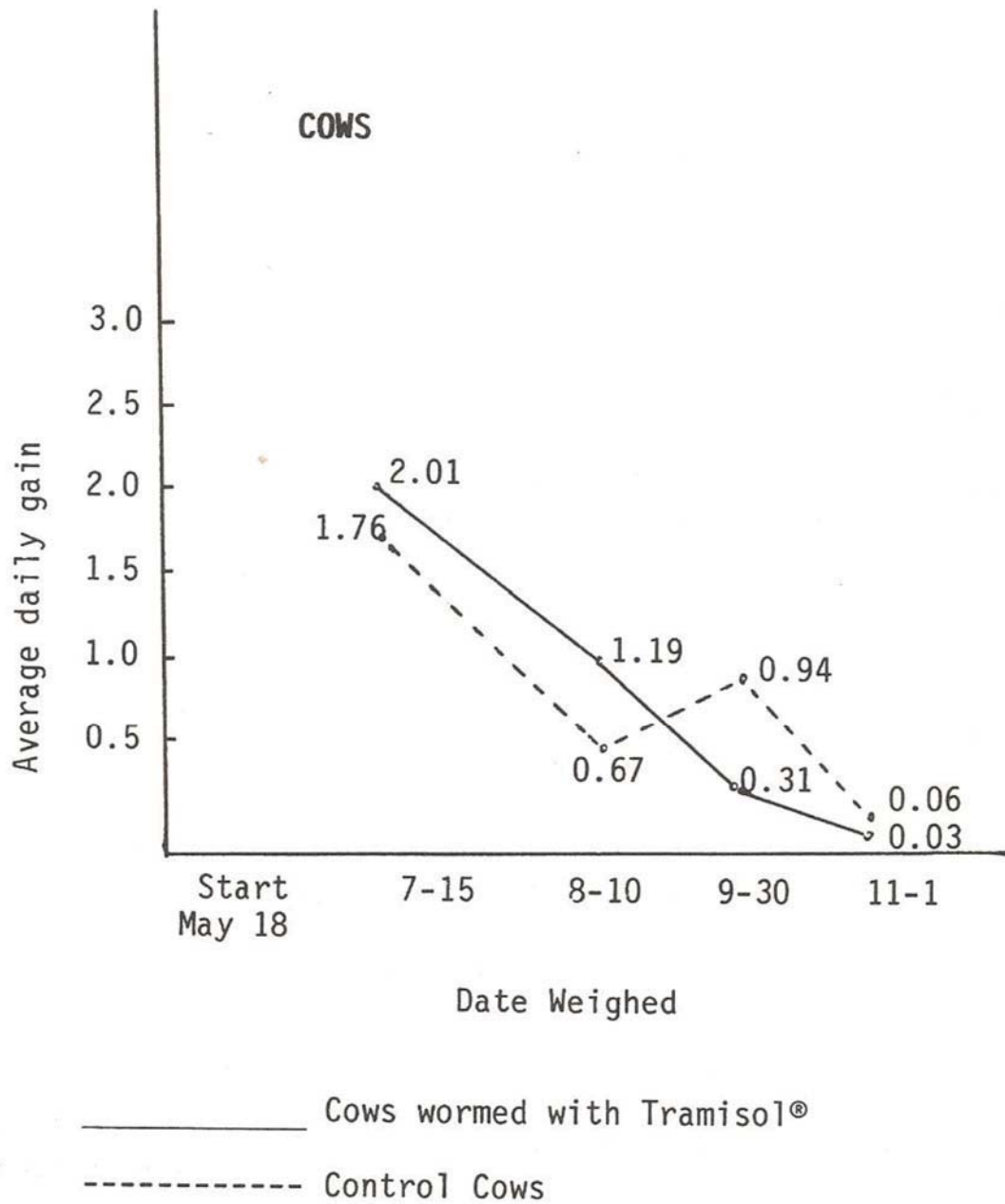


Figure 2: Average Daily Gains between Routine Weighing Intervals for Calves from Wormed and Non-Wormed Cows.

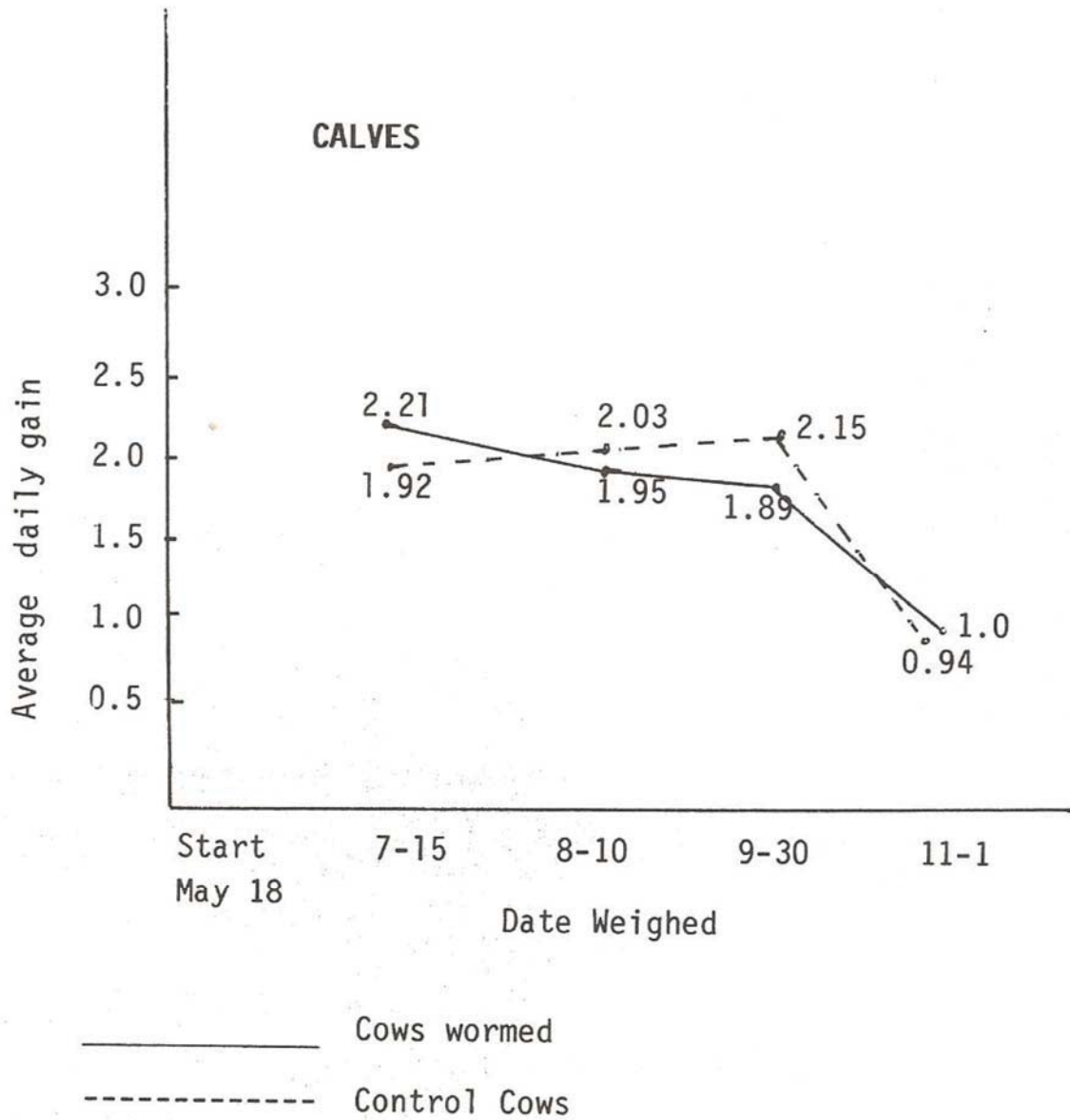


Figure 3: Fecal Egg Numbers Being Shed by Cows at Selected Dates after Worming with Tramisol®.

