

Cow-Calf Performance on Improved and Native Grass Pastures Following Worming

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Worming continued to be an important segment of research at the Dickinson Experiment Station. Several experiments have been conducted recently to evaluate the effects of performance and economic returns where worming is incorporated as a management tool. To date, with one exception, under the conditions of these studies there has been little or no performance or economic advantage for routine worming. The conditions in which we were able to measure an advantage when worming with Safe-Guard[®] and implanting with Compudose[®] were combined in steer calves fed backgrounding rations.

Fecal analysis has been part of each experiment dealing with worming. Analysis of intestinal worms based on fecal egg shedding has shown us that egg shedding among cows drops naturally from the time cows are turned out on spring pasture in May to a fairly stable low in the early part of July. Calves nursing these same cows, however, become infested, have lower resistance, and egg shedding among them increases to a peak in mid July to early August.

Our objective in this investigation is to study the effect that worming cows just before spring turnout and delaying calf worming until mid July has on performance and subsequent economic return to management.

Young second calf $\frac{3}{4}$ Angus X $\frac{1}{4}$ Hereford crossbred cows nursing $\frac{3}{4}$ Angus X $\frac{1}{4}$ Hereford crossbred calves were used to evaluate the new worming product Safe-Guard[®]. The cows and calves grazed crested wheatgrass pastures from turnout time in May until July 24th when they weighed, calves wormed and moved to native range pastures where they remained until weaning on November 2, 1984.

The control and wormer treated groups were weighed and fecal sampled at selected intervals throughout the grazing

season.

Fecal samples were analyzed at the North Dakota State University Veterinary Diagnostic Lab by Dr. Myron Andrews using the Wisconsin Double Centrifugation Sugar Flotation technique.

The animals were allotted by weight, breed, sex, sire of calf and performance index of cow based on North Dakota Beef Cattle Improvement Association performance indexing.

Gains and partial economic results of this investigation have been summarized in Table 1.

Summary: Worming of cows with Safe-Guard[®] resulted in slightly better daily gains for the entire grazing season. There was no advantage for mid July worming of calves even though the eggs per gram of feces being shed was reduced to very low levels.

Based on these results there is no doubt that Safe-Guard[®] is an effective, easy to use product, but the level of parasitism that prevailed under the conditions of this investigation was not great enough to depress animal performance. No economic advantage was realized.

Table 1. Weights, gains and worming costs for cows and calves wormed with Safe-Guard[®]						
	Wormed			Control		
	Cows		Calves	Cows		Calves
No. head	34		34	34		34
Days on pasture (May 24-Nov 2, 1984)		162			162	
Gains:						
Initial wt., lbs.	969		160	950		163

Final wt., lbs.	1109		474	1062		492
Avg. gain/hd., lbs.	140		314	112		329
ADG, lbs.	086		1.94	.69		2.03
Economics:						
Wormer cost/cow, \$ (22ml of 10% Suspension)	2.64			---		
Wormer cost/calf, \$ (7.5ml of 10% Suspension)			.89			---
Total investment/cow-calf pair, \$		3.53				

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