THE EFFECT OF DEWORMING ON PERFORMANCE OF FALL BORN BEEF CALVES

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Story in Brief

The effect of a single injection of ivermectin (Ivomec) was evaluated with fall born beef calves raised in Pittsburg County in southeastern Oklahoma. Treatment with ivermectin had no significant effect on weight gain of fall born calves when treated in December.

(Key Words: Beef Cattle, Parasites, Fall Born.)

Introduction

The need for deworming cattle in southeast Oklahoma has resulted in the routine treatment of cattle with anthelmintics. These treatments are usually in the spring or fall when cattle are normally processed. Fall calving herds are occasionally processed in December with cows receiving treatment for internal parasites resulting from infestations from the previous summer or fall. The need for treating fall born calves at this time is a question commonly asked by owners of these herds as the calves may not have experienced climatic or other conditions conducive to parasitic infestation. Pasture infestation levels are typically waning by late fall. The objective of this trial was to determine the effect of winter treatment with an anthelmintic on weaning weights of October/November born calves.

Materials and Methods

Forty fall born, mostly October and November, nursing calves were used to evaluate the effectiveness of a winter treatment with ivermectin (Ivomec) on weaning weight. The trial was conducted on a Polled Hereford ranch in Pittsburg County in southeastern Oklahoma. Cows and their calves were gathered December 8, 1989. Cows were routinely processed and all were treated with ivermectin. The necessity for this winter deworming had

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been previously determined by the ranch owner as evidenced by previous cow and calf performance. Cow body condition scores, rebreeding rates and calf weaning weights were improved with the incorporation of winter deworming in the herd health plan. Previously, calves did not receive a winter anthelmintic treatment. Calves were weighed, individually identified, blocked by sex, and randomly allotted by weight to one of two treatment groups; control or dewormed. Initial weights ranged from 105 to 230 lbs. The dewormed calves received an injection of ivermectin with dosage determined by weight.

All cows and their calves grazed dormant native grass pasture with hay and protein supplementation. Treatment groups were not physically separated. Calves were weighed when gathered for weaning and processing 151 days later on May 8, 1990. Data were analyzed using a model that included calf sex and weight gain. Treatment differences were evaluated by F-test.

Results and Discussion

Deworming treatment had no statistically significant effect on the weight gain of the calves (Table 1). Given the success of ivermectin as an anthelmintic, even against inhibited Ostertagia ostertagi, the lack of any weight gain advantage by treated calves would indicate a low or nonexistent level of internal parasite infestation in these calves. Given the predetermined need for deworming the dams of the trial calves, an apparent level of parasite infestation exists. Apparently, the prospect of fall born calves picking up a significant parasite load was low, at least in this instance, negating the need for a winter deworming.

Table 1. Effect of Ivermectin on fall born calf performance.[a]

Item	Control	Ivermectin
Number of calves	19	21
Average beginning wt, lb[b]	175	171
Average weight gain, lb[b]	270	242

[a]Least squares means.
[b]No significant treatment effect (P>.05).