

EFFECT OF DEWORMING WITH IVOMEC POUR-ON[®] PERFORMANCE OF GRAZING STOCKER CATTLE

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Story in Brief

One hundred twelve healthy stocker steers averaging 533 lb and grazing summer forages were used to evaluate the effect of ivermectin on weight gain. Treatment groups consisted of one or two treatments with ivermectin and a control group receiving none. Cattle receiving treatment with ivermectin had greater weight gains over subsequent 28 day grazing periods than cattle receiving no anthelmintic treatment. Average improvements in 28 day weight gains ranged from 11 to 14 lb/head. Repeated anthelmintic treatments, if scheduled appropriately, may be beneficial to summer stocker cattle performance in eastern Oklahoma.

(Key Words: Stocker Cattle, Deworming, Ivermectin, Anthelmintic.)

Introduction

Timely applications of anthelmintics can offer significant economic improvements to cow/calf production in eastern Oklahoma (Smith et al., 1995). Cattlemen receiving and grazing summer stocker cattle typically deworm at reception of the cattle in the winter or early spring but the scheduling of subsequent treatments with an anthelmintic is highly arbitrary. Cattlemen are unsure as to the effect of a singular deworming when cattle are turned to green grass and the effects of any followup treatments. The objective of this field trial was to determine the effect of deworming on healthy grazing summer stocker cattle.

Materials and Methods

One hundred twelve healthy stocker cattle averaging 533 lb were used to evaluate the effect of ivermectin (Ivomec[®]) on weight gain. Cattle were previously received over approximately 30 days in early spring and subsequently vaccinated for IBR, PI₃, blackleg, malignant edema and leptospirosis. Cattle were castrated and dehorned if necessary and dewormed with ivermectin.

The trial was initiated June 8, 1995. Cattle were randomly allocated to treatment groups, implanted, individually identified with a numbered eartag

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and weighed. IVOMEC Pour-On[®] (1 ml ivermectin/22 lb body weight) was applied to treated cattle. Treatment groups consisted of cattle left untreated to serve as controls (C), cattle dewormed on day 0 only (W1) and cattle dewormed on day 0 and day 28 (W2). Cattle were individually weighed on days 0, 28 and at the termination of the trial on day 56. Treatment groups were comingled and grazed common pastures consisting primarily of bermudagrass. Data were analyzed by General Linear Models procedures.

Results and Discussion

Animal performance is shown in Table 1. Dewormed cattle gained more weight than control (C) cattle not dewormed at day 0 (14 and 13 lb for W1 and W2 treatment groups, respectively). A followup deworming at day 28 resulted in W2 cattle gaining 11 lb more than W1 cattle and 12 lb more than control cattle during the same period.

These data demonstrate a benefit to the performance of grazing summer stocker cattle with repeated deworming treatments. Cattle in this trial were not dewormed at the beginning of the grazing season subsequent to deworming at their reception. Improvement in the total performance of the cattle may have been realized had deworming treatments begun earlier. Typical climatic conditions at this time are favorable to the life cycle of beef cattle parasites in eastern Oklahoma. More work is needed to better understand the effect on performance of repeated deworming treatments to grazing summer stocker cattle.

Literature Cited

Smith, S.C. et al. 1995. E-944. Oklahoma State University.

Table 1. Effect of ivermectin on weight gain in grazingstocker steers.

Treatment	In wt, lb	28d gain, lb (ADG,lb/day)	28-56d gain,lb (ADG, lb/day)
Control (C)	531	41 ^a (1.48)	30 ^a (1.06)
Deworm once (W1)	531	55 ^b (1.98)	31 ^a (1.17)
Deworm twice (W2)	537	54 ^b (1.98)	42 ^b (1.49)

^{a,b}Means in the same column with different superscripts differ (P<.05).