

THE EFFECTS OF DECCOX ON WEIGHT GAINS OF STOCKER CATTLE GRAZING WHEAT PASTURE

K.C. Barnes¹, D.R. Maxey², J.H. Jamison³,
M.D. Jamison³ and K.S. Lusby⁴

Story in Brief

One hundred and ninety nine heifers were utilized to determine the effect of Deccox (decoquinate), a coccidiostat, on weight gain of stocker cattle grazing wheat pasture. The trial was conducted from December 2, 1987 to January 29, 1988 (58 days) in Okmulgee County in East central Oklahoma. Heifers had been raised on the ranch or were purchased cattle that had been received 4 to 6 weeks before initiation of the trial. During the first 28 days Deccox-fed cattle gained 40 lb compared to 31 lb for control cattle not fed Deccox. Gains for the second period were 28 and 31 lb, respectively, for Deccox and control cattle. Daily gains for the total trial, 68 lb for Deccox-fed cattle and 61 lb for controls, were not statistically different. Heifers may have been suffering from a low-level infection of coccidiosis during the first month of the trial but the effect apparently disappeared during the second month of grazing high quality forage. No sickness was observed.

(Key Words: Coccidiosis, Decoquinate, Wheat Pasture, Beef Cattle.)

Introduction

Coccidiosis is a common occurrence among newly received stocker cattle in Oklahoma. However, most winter stockers are moved to high quality small grain forages after recovery from the stresses of shipping and receiving. The question frequently arises about the need to continue feeding coccidiostats after the period of stress has ended and the level of nutrition is very high. This study was conducted to study the effect of feeding a

¹Area Livestock Specialist ²County Extension Director
³Owner, Jamison Ranch ⁴Professor

coccidiostat to healthy stocker cattle grazing wheat pasture in December and January.

Materials and Methods

One hundred and ninety nine heifers weighing about 450 lb were randomly allotted to two treatments, (control, no Deccox and Deccox, 100 mg/day). Heifers grazed wheat forage in two pastures that provided ample and approximately equal amounts of forage. Both groups were fed the same amount of a commercial grain supplement daily throughout the trial in amounts ranging from 2 to 4 lb/day depending on forage availability. Deccox was administered with the supplement.

The trial was conducted at a ranch near Okmulgee in east central Oklahoma from December 2, 1987 to January 29, 1988 (58 days). Heifers had been raised on the ranch or were purchased cattle that had been received 4 to 6 weeks before the trial period so that the trial did not involve a receiving period. All cattle had been processed, including deworming, by November 6. All heifers were grazed on wheat pasture from November 5 to December 2, the start of the trial. Heifers were allotted to treatments based on origin (ranch raised or purchased) and weight. All cattle weights were taken without shrink.

Pastures were about 100 acres each resulting in a stocking rate of one heifer per acre. Grass hay was offered in equal amounts to each group during 10 days when snow covered all or part of the wheat forage.

Data for total weight gain and gain for Period 1 were analyzed using a model which included treatment, initial weight and the interaction term. The model for weight gain for Period 2 included treatment, second weight and the interaction. Second weight was used as a covariable to remove the effect of heavier weights of Deccox cattle at the end of Period 1.

Results and Discussion

Supplements were readily consumed by groups throughout the trial. Weights and gains are presented in Table 1. During the first 28 days, Deccox-fed cattle gained 40 lb compared to 31 lb for control cattle ($P < .03$). The increased gains of the Deccox group during the first 28 days of the study suggests that a low level of coccidiosis may have been present. Deccox has not been shown to have growth promotive effects exclusive from benefits of reducing coccidiosis.

Table 1. Performance of heifers grazing wheat pasture with or without Deccox.

	Control	Deccox	Prob.
No. heifers	99	100	
Initial wt (Dec 2), lb	447	452	
Weight gains, lb			
Dec 2-Dec 30	31	40	.03
Dec 30-Jan 29	31	28	.90
Total	62	68	.64
Final weight, lb	509	520	
No. pulled for sickness	0	0	

Gains for the second period were 28 and 31 lb ($P>.5$) for Deccox and control cattle. Daily gains for the total trial were 68 lb for Deccox-fed cattle compared to 61 lb for controls but were not statistically different. Heifers may have been suffering from a low level infection of coccidiosis during the first month of the trial but the effects apparently disappeared during the second month of grazing high quality forage. No sickness was observed. Cattle not affected by coccidiosis and maintained on high quality forage will probably not benefit from feeding coccidiostats.