

Table 3. Carcass characteristics

Trait	Feedlot	Treatment	
		Pasture + supplement no monensin	Pasture + supplement with monensin
Carcass weight, lb	534.2 ^a	520.2 ^b	534.1 ^a
Dressing percent	57.6 ^a	58.6 ^b	58.8 ^b
Rib eye area, in. ²	10.57 ^a	10.80 ^b	11.80 ^c
Fat thickness, in.	.27 ^a	.18 ^c	.22 ^b
Marbling score ¹	9.3 ^a	6.7 ^b	7.1 ^b
Quality grade ²	8.2 ^a	7.1 ^c	7.5 ^b
Yield grade	2.31 ^a	1.91 ^b	1.87 ^b

¹Marbling score: 11 = average slight, 8 = average traces, 5 = average practically devoid.

²Quality grade: 10 = average good, 7 = average standard.

^{abc}Means within a line not sharing a common superscript are significantly different ($P < .05$).

indication of greater muscling in the animals receiving monensin since their rib eye areas were significantly different from either of the other groups. The steers which were on pasture but received no monensin also had significantly greater rib eye areas than the feedlot steers. This probably indicates that the feedlot steer deposited more external fat than the pasture groups, but they also produced less lean tissue.

Monensin increased gains on pasture ($P < .05$) by .23 lb/day. Final weight, carcass weight, rib eye area, fat thickness and quality grade were all significantly increased by monensin. Moreover, monensin saved .83 lb of supplemental feed/lb of gain when fed to cattle on pasture. Monensin is presently legalized for use in both stocker and feedlot cattle.

The Effects of Decoquinatate on Gains of Stressed Cattle

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Story in Brief

The influence of decoquinatate, a coccidiostat, on gains of newly received cattle was measured in three trials with a total of 230 cattle. The coccidiostat was fed for approximately 30 days after which steers grazed native range. The addition of decoquinatate did not alter performance during the first 30 days. During the subsequent 4 to 9 months of grazing, gain was increased by 9.9 percent in one trial, but the drug had less effect (+1.1 percent) in the other two trials.

Introduction

Severe infestations of coccidia can reduce cattle performance and thereby reduce profits. Decoquinatate is a feed additive which effectively restricts coccidial growth in the intestinal tract of cattle. The purpose of this study was to determine the effect of decoquinatate on gains of pasture cattle.

Materials and Methods

Three trials were conducted to determine the effectiveness of decoquinatate administration on gains of stocker cattle purchased in and trucked from the southeastern U.S. Upon arrival, calves were allowed free access to prairie hay and water and fed two pounds of a 40-percent protein pellet (Table 1) per head daily in pens with about 10 head per pen. The decoquinatate was incorporated into the protein pellet. After approximately 30 days in confinement, the calves in each trial grazed a common native Osage range for 4 to 9 months after which cattle were weighed.

Results and Discussion

The pelleted protein supplement in Table 1 has worked very well in our trials with stressed cattle at the Pawhuska Veterinary Research Station. Decoquinatate treatment did not alter gains of calves during the first 30 days. During the 4- to 9-month grazing period, however, daily gains were increased by 9.9 percent in one trial, but treatment had little influence on gain in the other two trials. This suggests that some groups of cattle will respond more to treatment than others. Controlling the proliferation of coccidia of newly received cattle may reduce subsequent deleterious effects of coccidia at a later time.

Table 1. Supplement for receiving cattle^a

Ingredient	%
Soybean meal	90.9
Deccox ^b	3.3
Salt	3.0
Dicalcium phosphate	2.8
Vitamin mineral premix	0.1

^aMade into 3/16 inch pellet and fed at the rate of 2 lb/day.

^bTrade name for Rhone-Poulenc Inc., Atlanta, Georgia, 30342. The active ingredient is decoquinatate.

Table 2. Effects of decoquinatate on gains of stressed cattle

	Trial			Deccox ^a		Location ^b	
	1	2	3	—	+	Drylot	Trap
Days, No.	29	44	29	—	—	—	—
Early ADG	2.81 ^e	1.39 ^c	1.74 ^d	2.00	2.00	2.04	1.97
Days, No.	167	280	137	—	—	—	—
Late ADG	1.58 ^d	1.32 ^c	1.93 ^e	1.56 ^f	1.61 ^g	1.55	1.61
Days, No.	196	324	166	—	—	—	—
Overall ADG	1.75 ^d	1.33 ^c	1.91 ^e	1.61 ^f	1.67 ^g	1.61	1.67

^aTrade name for Rhone-Poulenc Inc., Atlanta, GA 30342. The active ingredient is decoquinatate.

^bType of confinement for first month after arrival.

Trap = 4 acres Drylot = 1/4 acre

^{cd}^eMeans in a row under a specific heading with different superscripts differ statistically ($P < .01$).

^f^gMeans in a row under a specific heading with different superscripts differ statistically ($P < .3$).