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Effect of salinomycin on performance of grazing stocker heifers

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Effect of Salinomycin[1] on Performance of Grazing Stocker Heifers

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Summary

The effect of feeding 0, 25, 50, 100, or 150 mg of salinomycin per head daily on performance of stocker heifers grazing smooth bromegrass pasture was evaluated in a 126-day trial. Feeding 100 or 150 mg of salinomycin per head daily produced the fastest gain.

Introduction

Salinomycin, an experimental feed additive, is a polyether ionophore that alters rumen microbial population and fermentation patterns. Although it improves the performance of finishing cattle, only limited data are available concerning its use in grazing stocker cattle.

Experimental Procedures

Eighty Charolais crossbred yearling heifers were used to evaluate the effect of salinomycin on the performance of grazing stocker cattle. Salinomycin was fed at 0, 25, 50, 100, or 150 mg per head daily in 2 lb of ground corn. The five treatments were replicated twice, using ten 10-acre smooth bromegrass pastures, with eight heifers per pasture. The study began on April 17, 1985 and was terminated on August 21 (126 days). Both initial and final weights were the average the average of two nonshrunk weights taken on consecutive days. Treatment groups were rotated among pasture plots at 14-day intervals to minimize effects of differences in forage availability and/or quality.

Results

Heifers that received 100 or 150 mg of salinomycin per head daily had the highest average daily gains and gained significantly more weight ($P<.01$) than those fed 25 mg of salinomycin per head daily (Table 29.1). There were no significant differences ($P>.05$) in rate of gain between any of the other salinomycin levels.

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[1]Salinomycin is an experimental feed additive produced by the A. H. Robins Co., Richmond, VA who provided the feed additive and partial financial assistance to conduct this study.

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Table 29.1. Effect of Salinomycin on Performance of Grazing Heifers (126 days)

	Salinomycin Level (mg/hd/day)				
Item	0	25	50	100	150
Initial Wt., lb	574	573	575	573	574
Final Wt., lb	753	731	751	766	762
Total Gain, lb	179[ab]	158[a]	176[ab]	193[b]	188[b]
Average Daily Gain, lb	1.42[ab]	1.25[a]	1.40[ab]	1.53[b]	1.49[b]

[ab]Means with different superscripts differ significantly (P<.01).