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The effect of Aureomycin® in combination with Bovetec® in a mineral mixture on steers grazing native grass

Abstract
Three hundred twelve mixed-breed steers (590 lb) were allotted randomly to eight native grass pastures on April 20. The pastures were grazed until July 13. The steers in four pastures received a basic mineral mix with 800 mg of Bovatec7 per lb. The other four pastures received the basic mineral mixture with Bovatec plus 1.6 lb Aureomycin 50 per 50 lb of mineral. The steers receiving the mineral with Aureomycin had greater mineral consumption (P<0.04). Including Aureomycin in the mineral increased gain by 2%; however, the response was not statistically significant.

Keywords
Cattlemen's Day, 2002; Kansas Agricultural Experiment Station contribution; no. 02-318-S; Report of progress (Kansas State University. Agricultural Experiment Station and Cooperative Extension Service); 890; Beef; Bovatec; Ionophore; Aureomycin; Antibiotic; Native grass

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THE EFFECT OF AUREOMYCIN® IN COMBINATION WITH BOVETEC® IN A MINERAL MIXTURE ON STEERS GRAZING NATIVE GRASS

F. K. Brazle

Summary

Three hundred twelve mixed-breed steers (590 lb) were allotted randomly to eight native grass pastures on April 20. The pastures were grazed until July 13. The steers in four pastures received a basic mineral mix with 800 mg of Bovatec® per lb. The other four pastures received the basic mineral mixture with Bovatec plus 1.6 lb Aureomycin 50 per 50 lb of mineral. The steers receiving the mineral with Aureomycin had greater mineral consumption (P<0.04). Including Aureomycin in the mineral increased gain by 2%; however, the response was not statistically significant.

(Key Words: Bovatec, Ionophore, Aureomycin, Antibiotic, Native Grass.)

Introduction

Feed additives such as Bovatec® or Rumensin® are used in mineral mixtures for cattle grazing native grass during the summer. Also, Aureomycin® has been added to mineral mixtures resulting in excellent improvement in gain. As combination clearances by FDA become available, efficacy of these combination need to be evaluated. Therefore, this research studies the use of Bovatec by itself or in combination with Aureomycin by evaluating the effect on steer gains while grazing native pasture during the summer.

Experimental Procedures

Three hundred twelve mixed-breed steers (590 lb) were allotted randomly to eight pastures on April 20. The pastures were grazed until July 13 (stocking rate = one steer per two acres). The pastures were native tallgrass prairie that had been burned in early April. The steers in four pastures received a basic mineral with 800 mg of Bovatec/lb. The steers in the other four pastures received the same basic mineral with Bovatec, plus 1.6 lb Aureomycin 50 added for each 50 lb of the base mineral offered. The steers were checked weekly for foot rot and eye problems, and any steer that required treatment for either problem was recorded.

Results and Discussion

The combination of Bovatec and Aureomycin in the mineral resulted in an increase in daily mineral intake (.356 vs .213 lb/day, P<0.04, Table 1). The combination of Bovatec and Aureomycin improved gain by 2% over Bovatec alone; however, the response was not statistically significant. The incidence of foot rot was low in the study; therefore, it is difficult to make meaningful comparisons between treatments in this regard.

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1Sincere appreciation is expressed to Hoffmann-LaRoche, Inc., Nutley, New Jersey, for financial support.
2Extension Specialist, Southeast Area Extension Office, Chanute
Table 1. Effects of Aureomycin in Mineral on Steers Grazing Native Grass for 83 Days

<table>
<thead>
<tr>
<th>Items</th>
<th>Aureomycin</th>
<th>Bovatec</th>
<th>Bovatec SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. steers</td>
<td>143</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>No pastures</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Average starting wt, lb</td>
<td>590</td>
<td>589</td>
<td></td>
</tr>
<tr>
<td>ADG, lb</td>
<td>3.209</td>
<td>3.147</td>
<td>0.044</td>
</tr>
<tr>
<td>Mineral intake, lb</td>
<td>0.356&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.213&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.023</td>
</tr>
<tr>
<td>Incidences of:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot rot, %</td>
<td>0</td>
<td>0.6</td>
<td>0.44</td>
</tr>
<tr>
<td>Bovatec, mg/d</td>
<td>285</td>
<td>170</td>
<td>19.3</td>
</tr>
<tr>
<td>Aureomycin, mg/d</td>
<td>570</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a,b</sup>Means in the same row with unlike superscripts are different (P<0.04).