Effect of Rotational Grazing by Yearlings on Early-Intensive, Double-Stocked, Native Grass

Frank Brazle and Gerry Kuhl

Summary

Continuous, early-intensive (double-stocked) grazing vs. early-intensive grazing using a two-pasture, 16 to 18-day rotation were compared in three experiments. No significant differences were found ($P > 0.15$) in daily gains of stockers or forage remaining after the 2 1/2 month grazing season.

Introduction

In recent years, producers have become interested in various rotational grazing systems. Early intensive grazing, where stocking rate is doubled and grass is used for only the first half of the normal grazing season, increases stocker gains per acre and improves grass vigor. However, little is known about the impact of combining rotational grazing with early-intensive, double stocking.

Experimental Procedures

Three experiments were conducted to evaluate stocker gains and residual forage after rotational grazing of early-intensive, double-stocked, native grass pastures. The first two experiments were done on native tall grass prairie (big and little bluestem, etc.) and the third was on a mixed prairie of tall and short native grasses. On about May 3, the cattle were weighed and allotted to either a continuous, double-stocked grazing system (1.8 to 2.0 acres per head), or a 16 to 18-day rotation system between two pastures stocked at that same rate. The cattle were weighed off trial about July 14. Then residual forage was estimated by clipping samples of remaining herbage. Analysis of Variance was used to analyze the data, pooled across the three locations, and the results are reported as least squares means.

---

1 Appreciation is expressed to Richard Porter, Reading, KS; Walter Poor, Chanute, KS; and Dan Bird, Anthony, KS for providing cattle, facilities, and assistance in data collection.

2 Extension Livestock Specialist, Southeast Kansas.
Results and Discussion

Stocker gains on the two systems are shown in Table 35.1. Gains were almost identical, and there was no significant difference (P > .15) in the amount of forage left at the end of the early intensive grazing season. The experiment was run in the spring and early summer of 1985, a period of above average rainfall. Although one year is far too short a time to measure changes in vegetation or seasonal weather effects, these three experiments suggest that under the conditions that prevailed in 1985, there was no advantage to rotational grazing.

Table 35.1. Effects of Rotational vs. Continuous Grazing of Double-Stocked, Early Intensively Grazed Native Range (May 3 to July 14)

<table>
<thead>
<tr>
<th>Item</th>
<th>Rotationally Grazed every 16 to 18 days</th>
<th>Continuously Grazed</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Cattle</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Starting Wt., lb</td>
<td>531</td>
<td>545</td>
</tr>
<tr>
<td>Ending Wt., lb</td>
<td>655</td>
<td>670</td>
</tr>
<tr>
<td>Daily Gain, lb</td>
<td>(1.72 \pm 0.05^1)</td>
<td>(1.73 \pm 0.05^1)</td>
</tr>
</tbody>
</table>

\(^1\) Standard error.

******

Early-Intensive Grazing on Kansas Ranges

Early-intensive grazing means doubling the normal stocking rate on native range, but grazing only during the first half of the season, typically May 1 to July 15. The system concentrates cattle on the grass when it is lush, growing rapidly, and highly nutritious. Gains are fast and efficient, and generally, the result is more beef per acre. Grazing distribution is improved and soil moisture is conserved. The grass has an opportunity to rest and store nutrients. Late spring burning and early intensive stocking make an excellent combination. As an added benefit, feeder prices may be higher in July than in the fall.

******