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Rotational vs. Continuous Grazing Bermudagrass Types

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SUMMARY

There were no differences in average daily gains among animals grazing rotationally or continuously over a two-year period. The differences in animal performance due to bermudagrass type were at the two lighter stocking rates, where forage, on offer, far exceeded animal intake.

Introduction

Under grazing conditions the theoretical choices of forage utilization systems open to the producer may be many, whereas the practical uses may at best be limited to only a few, and the profitable uses may be further limited to only a couple of choices. The method of choice for the producer must be based on a number of objectives of which animal performance may be only one factor. The literature, popular beliefs and old wives tales may or may not be based on sound reasoning, but more often than not, with warm-season perennial grasses, there is no basis for expecting differences in animal performance between rotational and continuous grazing. The amount of forage on offer becomes the driving force in animal performance within certain boundaries.

Procedure

Pastures of Coastal and Callie bermudagrasses were established on the Texas A&M University farm in the Brazos River bottom near College Station. Santa Gertrudis steers with an average initial weight of 445 pounds in 1980 and 625 pounds in 1981 were used as tester animals. Pasture sizes varied from 8712 square feet per animal to 16,212 square feet per animal in increments of 2500 square feet. All pastures were well established and were 4 to 6 years old. Animals on the rotational pastures were on a 7 days on and 21 days off frequency. The grazing season was from May 8, 1980 to October 18, 1980 for a total of 161 days and from April 23, 1981 to October 7, 1981 for a total of 167 days. The pastures were fertilized with 100 pounds of nitrogen per acre in March and an additional 100 pounds in July.

Discussion

Average daily gains for the various stocking rates and hybrids by grazing systems are shown in Table 1. There were no differences between continuous and rotationally grazing averaged across grasses and stocking rates. Steers grazing Callie bermudagrass had an average daily gain approximately 12% higher than those grazing Coastal. At the heavier stocking rates the differences between the two hybrids were small, and there were no consistent trends between hybrids by grazing method. The greatest differences between the

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two hybrids were at the lighter stocking rates where animal selectivity was maximal.

Average daily gains on Callie have decreased slightly each year. Callie has persisted in the pastures from the standpoint of winter damage but has shown increasingly more leaf disease damage during the summer.

Table 1. Average daily gains of animals on two bermudagrass types grazed in rotational or continuous systems, 2 yr. average.

	Rotational	Continuous	Avg.
5 hd/ac.			
Callie	.35	.61	.48
Coastal	.42	.39	.41
Avg.	.39	.50	.45
3.85 hd/ac.			
Callie	.61	.59	.60
Coastal	.72	.65	.69
Avg.	.66	.62	.65
3.22 hd/ac.			
Callie	1.00	.94	.97
Coastal	.65	.83	.74
Avg.	.83	.89	.86
2.70 hd/ac.			
Callie	.93	1.11	1.02
Coastal	.87	.92	.90
Avg.	.90	1.01	.96