

Forage Research in Texas

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Department of Soil and Crop Sciences

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Location: College Station

ROTATIONAL VS CONTINUOUS GRAZING BERMUDAGRASS TYPES

OBJECTIVE:

To determine the influence of stocking rate and method of grazing on animal performance from bermudagrasses with different growth characteristics.

PROCEDURE:

Three bermudagrass types with different growth characteristics and different quality potentials were grazed for 161 days during 1980. The three types were (1) Callie representing the open type, (2) SS-16 representing the intermediate type, and (3) Coastal as the standard. Constant stocking rates were maintained throughout the grazing season. Each grass was grazed continuously and grazed in a four pasture rotation system consisting of 7 days on and 21 days off. The grazing season was from May 8, 1980 to October 17, 1980, for a total of 161 days.

The pastures were stocked with Santa Gertrudes steers with an average initial weight of 445 pounds. The steers were weighed at twenty-eight day intervals. Blood samples and fecal samples were pulled each weigh day for estimation of internal parasites. Pasture samples were taken at the beginning and completion of each weigh period for the determination of forage yield. Plant height was recorded and samples divided into thirds for chemical and in vitro analyses.

RESULTS AND DISCUSSION:

Average daily gains by stocking rates and grazing system for the three bermudagrass types are shown in Table 1.

There were no differences between continuous and rotational grazing in animal performance. Overall, SS-16 produced slightly more animal gain than the other two types. Average daily gain from SS-16 pastures was approximately 20% greater than those from Coastal. This is almost exactly the same level of improvement previously reported. Average daily gain on Callie pastures were considerably less than from previous years. During the 1980 season Callie was infected with considerable leaf disease from about mid summer until the middle of September. In addition, the summer of 1980

was extremely hot and dry in the Brazos bottoms. Temperature apparently was a factor influencing animal performance. Animal gains in 1980 were approximately half those of previous years.

Table 1. Average daily gains for three bermudagrass types grazed in rotational or continuous systems, 1980.

Stocking rate and Bermuda type	Average daily gain, lbs., 161 days		
	Rotational	Continuous	Avg
<u>5hd/ac</u>			
Callie	.03	.66	.35
Coastal	.34	.66	.50
SS-16	.63	.27	.45
Average	.33	.53	.43
<u>3.85 hd/ac</u>			
Callie	.49	.51	.50
Coastal	.79	.70	.75
SS-16	.39	.98	.69
Average	.56	.73	.65
<u>3.22 hd/ac</u>			
Callie	.80	.77	.78
Coastal	.55	.76	.66
SS-16	1.41	1.11	1.26
Average	.92	.88	.99
<u>2.70 hd/ac</u>			
Callie	.80	1.04	.92
Coastal	.77	.81	.79
SS-16	.91	.82	.88
Average	.83	.89	.86