

Forage Research in Texas

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Animal Performance on Tifton-44, Coastal, and Brazos Bermudagrass

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SUMMARY

Animal performance of steers grazing Brazos bermudagrass has been approximately 20% greater than those grazing Coastal bermudagrass. During the 1981 grazing season there were no differences in animal gains of steers grazing Tifton-44 and Coastal bermudagrass. Average daily gain and gains per acre were greater on Brazos than on the other two cultivars.

Introduction

Evaluation of potentially new bermudagrasses has clearly demonstrated that there are a number of the new hybrids which possess greater quality characteristics than Coastal with equal or near equal quantity capabilities. Many of the higher quality hybrids have been of the stoloniferous growth habit. These types in general have not been as cold hardy as Coastal and many are quite susceptible to leaf diseases. A number of potentially new cultivars which looked good in small plot studies have been eliminated when subjected to grazing for a number of reasons. The need for animal utilization data before a new cultivar is released becomes apparent.

Materials

Pastures of Coastal, Tifton-44 and Brazos bermudagrass were established on the Texas A&M University Farm in the Brazos River bottom near College Station, Texas. The pastures were fertilized at the rate of 100 pounds of nitrogen per acre in February with an additional 100 pounds in July. Each cultivar was grazed continuously at four stocking rates for 167 days.

Discussion

Average stocking rates for the three cultivars are shown in Table 1. Tifton-44 and Coastal were grazed at set stocking rates whereas Brazos was grazed at a variable rate. The average stocking rate for Brazos was slightly higher than for Coastal and Tifton-44. This increase was due to the allocation of animals based on forage on offer. At six animals per acre, dry matter available to the animal was generally deficient. At all other levels, dry matter on offer was sufficient to satisfy intake requirements but the amounts had various degrees of influence on grazing selectivity and estimated nutrient intake by the animals.

Tifton-44 was the first to green up in the spring followed closely by Brazos then Coastal. During the 1981 growing season and

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particularly in the early spring, the growth rate of all the bermudagrasses was such that by the beginning of the grazing season there were no obvious differences.

The influence of selectivity on average daily gains is clearly shown in greater animal performance for all cultivars. Animals on Tifton-44 and Coastal had almost identical average daily gains. The overall average daily gain for the steers on Brazos was approximately 20% greater than those on Coastal and Tifton-44. This trend has been repeatable over the past four years with Coastal and Brazos, but this is the first full season of grazing on Tifton-44.

Table 1. Animal performance on Tifton-44, Coastal and Brazos bermudagrass.

		Heavy	Medium Heavy	Medium Light	Light
Tifton-44	Hd/Ac	5.0	4.3	2.7	2.4
	Avg.Da.Ga.	0.42	0.56	0.86	0.98
	Ga/Ac	354	406	392	397
Coastal	Hd/Ac	4.84	3.85	3.22	2.7
	Avg.Da.Ga.	0.11	0.60	0.90	1.02
	Ga/Ac	89	385	484	460
Brazos	Hd/Ac	6.0	4.0	3.3	3.0
	Avg.Da.Ga.	0.34	0.66	1.09	1.31
	Ga/Ac	342	443	604	660