

# Forage Research in Texas

Departmental Technical Report No. 81-12

Department of Soil and Crop Sciences

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#### ANIMAL PERFORMANCE FROM SUDAN AND SORGHUM PASTURES

##### OBJECTIVE:

To determine animal performance on sudan and sorghum pastures at three fixed stocking rates.

##### PROCEDURE:

Atlas sorghum and sweet sudan were each drilled in three pastures at the rate of 30 pounds seed per acre. Each species was stocked at the rate of 1.5, 2.0 and 2.4 head per acre. Grazing started on May 5, 1980 and terminated on August 12, 1980 for a total of 84 days. A four pasture rotational system consisting of 7 days on and 21 days off was practiced. The pastures were shredded at a 3 foot height when necessary to control excess growth. Santa Gertrudis steers with an average initial weight of 440 pounds were used.

##### RESULTS AND DISCUSSION:

The 1980 grazing season was terminated after 84 days due to lack of moisture. The pastures were planted on areas that were in S-54 bermudagrass the previous year. The bermudagrass was plowed in the summer, spot treated with Round-up once. Due to the dry conditions in 1979 a fair control on bermudagrass was obtained. A rather poor stand on the light stocked Atlas and medium stocked Sudan pastures was obtained. These pastures were wet during the cool spring then turned off hot and dry. Both pastures showed stress throughout the season.

A problem that was not anticipated with the Atlas pastures was one of stalk breakage. As the animals walked through the pasture there was a strong tendency for the stalks to break at the nodes, instead of bending. Under heavy grazing the animals picked up the broken stalks and consumed them readily. At the lighter rates there was a trend toward leaf strip-ping on both the Atlas and the Sudan pastures.

Average daily gains are shown in Table 1. Because of the conditions previously described the gains for the light stocked Atlas and medium stocked Sudan are largely a reflection of Johnsongrass grazing.

Table 1. Average daily gain for steers grazing Atlas and Sweet Sudan at three stocking rates.

Species	Stocking rate, animals/acre			
	1.5	2.0	2.4	Avg.
	Avg. Daily Gain, lbs			
Atlas	1.07	1.61	1.55	1.41
Sweet Sudan	1.54	1.00	1.42	1.32