

Forage Research in Texas

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Dallisgrass Variety Test

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SUMMARY

Eight dallisgrass plant introductions were compared to common dallisgrass under Gulf Coast conditions. All lines were higher yielding than common with six of the lines producing an additional ton of dry matter per acre over common. No insect or disease problems were observed.

Introduction

Dallisgrass is a warm season perennial grass which is well adapted to poorly drained heavy soils. Once established it requires little maintenance, although it does respond to fertilization. When mixed with white clover, $1\frac{1}{2}$ acres will support a cow and calf with only 40 to 60 lbs. phosphorus per acre each fall. Because dallisgrass reproduces by apomixis (asexual reproduction), no crosses can be made to develop improved dallisgrass varieties. Different dallisgrass types were collected by Dr. Byron Burson while on a plant exploration trip in South America. Some of these plant introductions were evaluated and compared to common dallisgrass under Gulf Coast conditions.

Methods and Materials

Eight dallisgrass introductions and common dallisgrass were started from seed in peat cups in the greenhouse. Seedlings plus peat cups were transplanted in a Lake Charles clay at Angleton on April 30, 1981. Seedlings were placed 1 ft apart within a row. Plots consisted of four rows, 1.5 ft apart, 12 ft long. The study was fertilized with 48 lb of nitrogen and 60 lb of phosphorus per acre at transplanting and an additional 50 lb/ac of nitrogen on July 30 after the first cutting. Sencor was applied at .5 lb/ac the day after transplanting for weed control. Plots were harvested on July 17, Sept. 10 and Oct. 28 at a 4 in height.

Results and Discussion

All plant introductions were more productive than common dallisgrass (Table 1). Numbers 461, 544, 554, 455, 426, and 458 yielded an additional ton of dry matter over common dallisgrass.

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The first years results are encouraging for finding a higher yielding dallisgrass. All introductions produced seed although seed quality and germination were not determined. No insect or disease problems were observed.

Table 1. Dallisgrass Variety Test at Angleton - 1981.

Plant Introduction	July 17	Sept. 10	Oct. 28	Total
	----- lb/ac -----			
461	4117 abc*	3679 a	657 a	8453 a
544	4279 ab	3516 a	585 ab	8380 a
554	4589 a	3219 a	569 ab	8377 a
455	4356 ab	3218 a	519 ab	8093 a
426	3733 abc	3581 a	645 ab	7959 a
458	3841 abc	3459 a	638 ab	7938 a
460	3573 bc	3159 a	639 ab	7373 ab
555	3557 bc	3158 a	354 ab	7069 ab
common	3283 c	2423 a	325 b	6031 b

*Yields within a column followed by the same letter are not significantly different at the .05 level according to Duncan's Multiple Range Test.