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Temperate Perennial Grass Variety Test at Angleton

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Summary

First year production on eight cool-season perennial grasses ranged from 2,750 to 4,500 lb dry matter per acre. Bellegarde bromegrass, Matua Prairie grass, and three fescues were the most productive grasses.

Introduction

Cool-season, or temperate perennial grasses have a growing season similar to the cool-season annual grasses such as ryegrass and small grains. With a perennial grass, annual land preparation and seeding could be eliminated. Fescue is the only cool season perennial presently grown in the eastern half of Texas. Primary area of adaptation are the creek and riverbottom soils. Performance on upland soils is usually poor because of stand reduction under high temperatures and low soil moisture. A variety test was conducted on the clay prairie soil at Angleton to evaluate new breeding lines of fescue and several other species of cool-season perennial grasses (Table 1).

KEYWORDS: Cool-season perennial grass/temperate perennial grass.

Procedure

Eight grasses were seeded on November 8, 1984 at 25 lb/A. Fertilizer applied at planting was 50 lb nitrogen and 60 lb phosphorus per acre plus another 50 lb nitrogen on March 8, 1985. Broadleaf weeds were controlled with .75 lb of Basagran on December 11. Experimental design was a randomized block with four replications. Plots were harvested at a 2-inch height on February 19 and April 3.

Results and Discussion

Forage yields ranged from 2,750 to 4,500 lb dry matter per acre. Bellegarde bromegrass, Matua Prairie grass, and the fescue entries had similar production at both

TABLE 1. FORAGE PRODUCTION OF COOL-SEASON PERENNIAL GRASSES ON A LAKE CHARLES CLAY AT ANGLETON 1984-85

Grass	19 Feb.	3 Apr.	Total
	— Pounds dry matter per acre —		
Georgia Jessup fescue	1,916 a[2]	2,592 a	4,508 a
Matua Prairie grass[1]	1,831 ab	2,462 ab	4,293 ab
Georgia-5 fescue	1,684 b	2,457 ab	4,141 ab
Bellegarde bromegrass	1,840 ab	2,094 cd	3,934 b
Kenhy tall fescue	1,685 b	2,231 bc	3,916 b
Baylor smoothbrome	497 d	2,482 ab	2,979 c
Sirosa phalaris	1,045 c	1,888 d	2,933 c
Sirolan phalaris	1,149 c	1,604 e	2,753 c

[1]*Bromus catharticus*.

[2]Yields within a column followed by the same letter are not significantly different at .05 level, Waller-Duncan.

harvest dates and total yield. Baylor smoothbrome, Sirosa phalaris, and Sirolan phalaris were significantly lower yielding than the other grasses at the first harvest and for total yield. These three grasses do not appear to be adapted to the poorly drained clay soils of Southeast Texas.

Summer survival will be the most critical issue on the use of cool-season perennial grasses in the Lower South. This information will not be available until completion of the 1985-86 growing season.