REGISTRATION OF TIFTON 68 BERMUDAGRASS

'Tifton 68' bermudagrass (Cynodon nlemfumsis Vanderyst) (Reg. no. 14) was developed by the USDA-ARS in cooperation with the University of Georgia’s Coastal Plain Experiment Station, Tifton, GA. Tifton 68 bermudagrass is an F₁ hybrid between PI255450 and PI293666, the two most digestible bermudagrasses in our collection of 500 introductions from various parts of the world. It is a giant type with large stems, long stolons, and no rhizomes. It spreads rapidly when planted vegetatively and has usually outyielded everything in the test the 1st year partly because of its rapid spread and establishment. In a clipping test comparing 81 hybrids from 1974 to 1976 (mild winters) average annual dry matter yields for Tifton 68, 'Coastal' and all entries were 14 000, 13 300, and 12 200 kg/ha, respectively. Respective in vitro dry matter digestibilities for the dry matter harvested were 64.3, 54.9, and 57.3%. In a 24-week clipping test with replicated plots cut at 1, 2, 4, and 8-week intervals, Tifton 68 gave higher in vitro dry matter digestibility (IVDMD) values than either Coastal or 'Coastcross-1' [C. dactylon (L.) Pers.] (1).

In an animal feeding trial at Tifton, steers gained 10% faster on Tifton 68 pellets than on Coastal bermudagrass pellets. Pastures we had hoped to graze in 1977 suffered such heavy winter damage in 1976-1977 that the test was abandoned. Tifton 68 looked good the 1st year in plantings in Alabama and Homer, LA., but suffered greatly from winter injury in 1976-1977.

Several cattlemen in Mexico report outstanding productivity and animal performance on Tifton 68 bermudagrass. For areas where temperatures rarely drop below freezing, Tifton 68 should be an excellent choice for both pasture and hay production.

Tifton 68 is fertile, sheds pollen freely, and should be an excellent parent to produce hybrids with increased digestibility. The Georgia Coastal Plain Experiment Station, Tifton, will maintain breeder stock.

GLEN W. BURTON AND WARREN G. MONSON (2)

References and Notes

REGISTRATION OF OSCEOLA WHITE CLOVER

'Osceola' white clover (Trifolium repens L.) (Reg. no. 6) is a ladino type, persistent white clover cultivar developed over a 30-year period by the Florida Agricultural Experiment Station and was released in 1980 for use in the Southeast for fall, winter, and spring grazing.

Osceola was developed through an intensive screening and selection program for summer persistence in a grass sod. Polycross nurseries formed from the most promising 40 to 50 plants selected from a spaced-plant nursery were used to develop seed for each of five cycles of selection. Seed from 35 selected and polycrossed clones from the sixth cycle of selection formed the seed lots of the new synthetitc cultivar.

Osceola is similar in appearance to other ladino clovers and it produces 100% more flowers than other ladino cultivars tested in Florida. It has 50% fewer flowers than the intermediate types which predominate in the production areas of Florida. It persists well over the summer compared with both intermediate and ladino types (56 and 30% better, respectively) and will resume growth in the fall from stolons without depending heavily on seed for survival of stand. Hydrocyanic acid content (2 X 10⁻⁴ mg/kg) of Osceola is similar to 'Tillman' and 'Regal' ladino and lower than 'La S-1' (10 X 10⁻⁴ mg/kg) intermediate white clover. Because of improved persistence which can extend the period of growth, total yields of Osceola are high. Average forage yields of Tillman, Regal, La S-1, and 'Nolin’s Improved' in a 3-year test at Gainesville, Florida were 91, 89, 54, and 56% of Osceola, respectively.

Seed classes of Osceola will be breeder, foundation, registered and certified. Certified seed shall be produced only from foundation or registered seed. Breeder seed will be maintained by the Florida Agricultural Experiment Station and foundation seed by the Florida Foundation Seed Producers, P.O. Box 309, Greenwood, FL 32443. Seed will be produced primarily in California. The multiplication and distribution of foundation, registered, and certified seed will be handled by the Turf and Forage Seed Div. of Pioneer Hi-Bred Int., P.O. Box 346, Savage, MN 55378.

D.D. BALTENSPERGER, C.E. DEAN, AND E.S. HORNER (1)

References and Notes

REGISTRATION OF MUSTANG TALL FESCUE

'Mustang' tall fescue (Festuca arundinacea Schreb.) (Reg. no. 29) was developed and released by Pickseed West, Inc. of Tangent, OR, using germplasm developed at the New Jersey Agricultural Experiment Station (1). Mustang is an advanced generation synthetic cultivar selected from the progenies of 63 clones. The original source of most of the parental germplasm constituting Mustang was plants collected from old turfs in New Jersey, Virginia, North Carolina, Idaho, Pennsylvania, Georgia, and Alabama. In addition to these sources, part of the parental germplasm came from trispecies hybrids of tall fescue (F. arundinacea Schreb.), meadow fescue (F. pratensis Huds.), and perennial ryegrass (Lolium perenne L.) obtained from the United States Regional Pasture Research Laboratory, University Park, PA. Intercrosses of the above germplasm were subjected to varying cycles of phenotypic recurrent selection for disease resistance, stress tolerance, persistence under close mowing, and improved turf performance. Selected plants were used to constitute two separate breeding populations designated A and B. A total of 11 200 seedlings from breeding Populations A and B were subsequently evaluated in a spaced-plant clonal trial receiving frequent, close mowing. At a time of heavy incidence of the Helminthosporium blight (netblotch) disease incited by Helminthosporium dicoidea Drechsler, a total of 161 clones were selected and transferred to an isolated seed production nursery. Selection was based on attractive appearance, dark green color, soft leaves, and apparent resistance to Helminthosporium...