REGISTRATION OF CROP GERMPLASMS

REGISTRATION OF TIFTON 72-84 BERMBUDAGRASS GERMPLASM

Tifton 72-84 (Reg. no. GP-33) is the best of many F1 hybrids between two common bermudagrass [Cynodon dactylon L.] Pers. clones; PI 320876 found in the Alps of northern Italy, and PI 255450 from Kenya. Tifton 72-84 is a very dark green, highly stoloniferous perennial that makes an unusually dense sod when mowed or grazed. Its sod density, greater than most improved bermudagrasses, provides better competition against weeds, but a less desirable environment for a grass-legume association. This germplasm produces fewer rizhones than Coastal bermudagrass. Its flowering culms are coarser and taller than common bermudagrass, but slightly shorter and finer than Coastal bermuda. Tifton 72-84 is comparable to Coastal in disease resistance, drought tolerance, and persistence. In replicated clipping trials at Tifton, GA, it has usually produced 10 to 15% less dry matter per ha, but the harvested forage has been up to 12% more digestible than Coastal bermudagrass (1). In these studies, Tifton 72-84 has been similar to Coastal in N recovery and slightly higher in protein content. It must be propagated vegetatively.

In a 2-yr replicated grazing trial at Tifton, 72-84 supplied 11% fewer steer days per ha than Coastal because it started growth later in the spring. Its average daily gains for the 2 yrs was 0.88 kg, which was 13.5% greater than that for Coastal. However, the liveweight gains per ha for the two grasses were similar. Observations in several southern states suggest that Tifton 72-84 is similar to Coastal bermudagrass in winter-hardiness.

The diversity between the parents and among the F1’s from which it was selected indicates that Tifton 72-84 is highly heterozygous. Thus, it should be an excellent parent to impart diversity as well as high digestibility and many other desirable traits to its offspring.

Breeders stock of Tifton 72-84 will be maintained at the Georgia Coastal Plain Experiment Station, Tifton, GA 31793.

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References and Notes

2. Research geneticist, USDA-ARS, and Univ. of Georgia, College of Agriculture, Coastal Plain Exp. Stn.; research agronomist, USDA-ARS; and head, Dep. of Animal Science, Univ. of Georgia, College of Agriculture, Coastal Plain Exp. Stn., Tifton, GA 31793. Registration by the Crop Sci. Soc. of Am. Accepted 3 Oct. 1985.

REGISTRATION OF ND-ORD811 AND ND-ORD812 WINTER-HARDY ORCHARDGRASS GERMPLASMS

ND-ORD811 was derived from 80 plants surviving the 1971-1972 winterkill of the cultivar Avon that had been seeded in 1970 at a dryland, exposed site near Mandan, ND. Ninety individual plant selections were made in May, 1977 after differential winterkill had occurred. These selections were intermated in the greenhouse. Replicated clonal families were evaluated in solid-seeded field plots at Mandan, ND from 1979 to 1981. Twenty-seven families were selected based on winter survival, moderate resistance to leaf spot diseases, and moderate tolerance to stem rust. Equal quantities of seed from each selected polycross family were bulked in 1981 to constitute ND-ORD811.

Seed stocks of ND-ORD811 and ND-ORD812 are maintained at the USDA-ARS Northern Great Plains Research Laboratory. Five grams of seed from each germplasm may be supplied upon written request and agreement to identify the source of this germplasm if it contributes to development of a new cultivar. Request seed from J.D. Berda, Northern Great Plains Research Laboratory, Mandan, ND 58554.


References and Notes

1. (J.D.B., R.E.B., and J.M.K.) Research geneticists, and plant pathologist, respectively, USDA-ARS, Northern Great Plains Research Laboratory, Mandan, ND 58554; (D.W.M. and W.T.B.) professor of horticulture, respectively, North Dakota State University, Fargo, ND 58102; (P.E.N.) professor of botany, respectively, North Dakota State University, Fargo, ND 58102; (P.E.N.) superintendent, Central Grasslands Res. Stn., Dickinson, ND 58001; (L.L.M.) assistant range botanist, botany, Dickinson, ND 58001; (L.L.M.) assistant range botanist, botany, Dickinson, ND 58001; (L.L.M.) assistant range botanist, botany, Dickinson, ND 58001. Joint Contribution of USDA-ARS and the North Dakota Agricultural Experiment Station, Mandan, ND 58554; and North Dakota Research Station, Fargo, ND 58101. Published with the approval of the North Dakota Agric. Exp. Stn. as Journal Article by the Crop Sci. Soc. of Am. Accepted 3 Oct. 1986.