REGISTRATION OF TIFTON 72-84
BERMUDAGRASS 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 rhizomes 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 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 (Reg. no. GP-34) and ND-ORD812 (Reg. no. GP-35) winter-hardy germplasms of orchardgrass (Dactylis glomerata L.) were released in February 1985 by the USDA-ARS and the North Dakota Agricultural Experiment Station. Both germplasms have had higher winter survival than the winter-hardy cultivar Avon. Survival of ND-ORD811 has been evaluated in replicated field tests at Mandan, Dickinson, and Fargo, ND, and ND-ORD812 has been tested at Mandan. The two germplasms were selected for resistance to natural field infections of leaf spot diseases caused by Cochliobolus sativus (Ito et Kurib.) Drechs. ex Dastur (anamorph Helminthosporium sativum P. K. & B.), Pyrenophora trichostoma (Fr.) Fckl. (anamorph Helminthosporium tritici - repentin Died.), Myrothecium roridum Tode ex. Fr., and Leptosphaeria spp. The fungus M. roridum, not previously reported on orchardgrass, was identified from field samples of infected leaves in 1982 and 1983.

ND-ORD811 was derived from 80 plants selected in 1977 from survivors of the cultivar Avon that had been seeded in 1970 at a dryland, exposed site near Mandan, ND, where drought and winter stresses were severe. Replicated clonal evaluation and polycross progeny tests of the 80 selected plants were used to identify 26 clones that had early fall dormancy, high winter survival, and moderate resistance to leaf spot pathogens. Polycross seed of the 26 selected clones was bulked to constitute ND-ORD811. ND-ORD812 is susceptible to stem rust (Puccinia graminis Pers.).

ND-ORD812 was derived from a broad base source population of 294 orchardgrass accessions grown at Mandan, ND. Ninety individual plant selections were made in May, 1977 after differential winterkill had occurred. These 90 plant selections were intermated in the greenhouse, and polycross families were evaluated in solid-seeded field plots at Mandan, ND from 1979 to 1981. Twenty-seven polycross families were selected based on winter survival, moderate resistance to leaf spot diseases, and moderate to high resistance to stem rust. Equal quantities of seed from each of the 27 selected polycross families were bulked in 1981 to constitute ND-ORD812.

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 will be supplied upon written request and agreement to acknowledge the source of this germplasm if it contributes to development of a new cultivar. Request seed from J.D. Berdahl, Northern Great Plains Research Laboratory, P.O. Box 459, Mandan, ND 58554.


References and Notes

REGISTRATION OF 12 WINTER-HARDY PANICUM MAXIMUM GERMPLASM CLONES

Twelve clones of Panicum maximum were developed and released in 1985 by the Agricultural Research Service and the University of Georgia, College of Agriculture, Coastal Plains Experiment Station, Tifton, GA.

In 1971, 20 plants of each of 158 plant introduction accessions of guineagrass (Panicum maximum Jacq.) were established in the field. In 1972, the 28 most vigorous plants (from 25 different plant introduction accessions) surviving the 1971-1972 winter were selected and established in a nursery where they were maintained from 1972 to 1977. These selections have been clonally propagated through the seed since 1976 because each reproduced by apomixis. In 1977, the clones were planted in Tifton, Americus, Griffin, and Blairsville,