REGISTRATION OF 'TARA' PERENNIAL RYEGRASS

'TARA' perennial ryegrass (Lolium perenne L.) (Reg. no. 109) (PI 510666) is an advanced generation synthetic cultivar selected from the progenies of six clones. It was developed and released in September 1984 by Hubbard Seed and Supply Co., Hubbard, OR. Germplasm received from Lofts Seed, Bound Brook, NJ, and the New Jersey Agricultural Experiment Station was used in the development of this cultivar. Tara originated from a program attempting to select the best germplasm from 3100 seeded turf plots located at North Brunswick and Adelphia, NJ. These turf trials consisted primarily of single-plant progenies of turf-type ryegrasses that had been selected from the best cultivars and breeding populations available. Most of these cultivars and breeding populations had been developed from germplasm collections from old turfs that had undergone various cycles of population improvement for disease resistance, stress tolerance, mowing quality, and turf performance. It was assumed that intense interplant competition under the stress of frequent mowing at 2 cm would tend to further eliminate plants with less persistence and inferior performance under turf maintenance. A total of 3910 tillers were selected from the 56 turf plots showing the best overall performance. After rooting in a greenhouse, the 3910 individual tillers were transferred to a spaced-plant clonal evaluation trial. This trial was planted into an old Kentucky bluegrass (Poa pratensis L.) turf that had been killed with glyphosate [isopropylamine salt of N-(phosphonomethyl)glycine]. The trial was mowed frequently at 4 cm. Polycross progenies of 10 clones selected from this clonal evaluation trial were subsequently evaluated in replicated turf performance tests. One thousand five hundred tillers were selected from the six clones exhibiting the best performance. These tillers were established in an isolated spaced-plant nursery for production of breeder seed. Unattractive plants were removed from the breeder nursery prior to anthesis. Pedigrees show that most of the parental germplasm of Tara originated from tillers selected from populations derived from or related to 'Yorktown II', 'Barry', 'Loretta', and 'Premier'. BT-1 was the experimental designation of Tara. The first certified seed was produced in western Oregon in 1984.

Tara is a leafy, turf-type perennial ryegrass of medium maturity. It is capable of producing a persistent, moderately dense, attractive, medium low-growing, fine-textured turf with a bright, medium dark green color. Tara has improved mowing qualities, good heat tolerance, and above average summer performance and winterhardiness ratings in New Jersey trials. It has shown good resistance to many races of crown rust (initiated by Puccinia coronata Corda) and good resistance to the large brown patch disease (caused by Rhizoctonia solani Kühn). Tara has also shown good resistance to the winter net blotch disease [caused by Drechslera dictyoides f. sp. perenne (Drechsler) Braverman and Graham]. This cultivar has excellent seedling vigor and the ability to become established and grow on a wide range of soils. It has excellent wear tolerance during cool, moist seasons of the year. Tara produces little or no objectionable thatch. It has moderate shade tolerance. Tara is recommended for use on lawns, parks, sports fields, institutional grounds, golf courses, and school play areas in regions where perennial ryegrasses are well adapted for turf use. It also performs very well for the fall and winter overseeding of dormant warm season turfs throughout the southern USA.

Breeder seed of Tara will be maintained by Hubbard Seed and Supply Co. with the cooperation of the New Jersey Agricultural Experiment Station. Seed classes will be limited to breeder, foundation, and certified.

United States Plant Variety Protection Certificate no. 8400085 has been granted on Tara.


References and Notes

1. R.H. Hurley, Lofts Seed, P.O. Box 146, Bound Brook, NJ 08805; S.K. Jones and G.W. Jones, Hubbard Seed and Supply Co., P.O. Box 310, Hubbard, OR 97032; and B.B. Clarke and C.R. Funk, Plant Pathology Department and Soils and Crops Dept., respectively, New Jersey Agric. Exp. Sta., Cook College, Rutgers Univ., New Brunswick, NJ 08903. Publication no. D-15166-4-87 and D-11130-1-87, New Jersey Agric. Exp. Sta. Some of this work was conducted as part of New Jersey Agric Exp. Sta. project no. 15166, supported by New Jersey Agric. Exp. Sta. funds, other grants, and gifts. Additional support was received from the U.S. Golf Assoc. Green Section Res. and Education Fund. Registration by CSSA. *Corresponding author. Accepted 30 July 1987. Appreciation is expressed to all participants in the Nati. Turfgrass Evaluation Program for their contributions to the evaluation of Tara.

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REGISTRATION OF 'FORESTBURG' SWITCHGRASS

'FORESTBURG' switchgrass (Panicum virgatum L.) (Reg. no. 110) (PI 478001) was collected by the USDA-SCS, Plant Materials Center, Bismarck, ND, and was further developed and evaluated in cooperation with the USDA-ARS, Mandan, ND. Forestburg was tested as SD-149 and jointly released in March 1987 by USDA-SCS, USDA-ARS, and the North Dakota, South Dakota, and Minnesota Agricultural Experiment Stations.

Forestburg is a composite of four accessions collected near Forestburg, SD in Sanborn County. Accession numbers of PM-SD-203, PM-SD-205, and PM-SD-206 were collected in 1956. PM-SD-62 was collected in 1961. Initial evaluations were conducted at the Bismarck Plant Materials Center 1957 through 1963. In 1963, seed was collected and composited from the four accessions, and a 0.2-ha increase field was established in 1964. Using seed from the 1964 increase field, advanced evaluation studies and field plantings located in North Dakota, South Dakota, and Minnesota indicated that Forestburg is very well adapted to the Northern Great Plains of the USA. In 1977, random individual plants were removed from the increase field and transplanted to ARS research fields at Mandan. Plants were evaluated for many morphological characteristics and off-type plants were rogued from the nursery. About 500 plants remained and these comprise the breeder seed block of Forestburg. Chromosome number of Forestburg is 2n = 4x = 36.

Forestburg was released because of its early maturity, which extends the latitudinal range of switchgrass farther north than with presently available cultivars. Forestburg has demonstrated excellent winter hardiness and persistence with its forage production exceeding that of the northern seed source NDG-965-98 and equal, or greater than, 'Nebraska 28' when grown at northern latitudes. Cultivars from southern sources ('Summer', 'Pathfinder', 'Blackwell', and 'Cave-in-Rock') initially produce more forage when grown at northern sites in the area of adaptation of switchgrass, but yields decline over time. Except for slightly lower forage yields, Forestburg has demonstrated good seed yield potential and appears similar in other characteristics and in adaptation to 'Sunburst'. In grazing trials with cattle (Bos taurus) at Morris, MN, Forestburg was similar to Pathfinder in forage quality characteristics and tended to be slightly higher in season-long, av-