Registration of ‘Wrens 96’ Rye

‘Wrens 96’ winter rye (Secale cereale L.) (Reg. no. CV-17, PI 602997) was developed at the University of Georgia Agricultural Experiment Stations in cooperation with the USDA-ARS and the Florida Agricultural Experiment Station and was released in 1996. Wrens 96 was derived from a recurrent phenotypic selection procedure initiated to improve forage yield of ‘Wrens Abruzzi’ rye (1). The selection procedure included visual selection of spaced plants, grid selection, maintenance of a relatively large population size, biparental selection, a 1-year cycle interval, and intermating of selected plants in isolation (2).

In each cycle, 1050 hill plots were hand-planted on 45- by 45-cm centers. Each hill was hand-thinned to a single seedling after emergence and establishment. Nonselected plants were removed from the isolation area after visual selection and simulated grazing. About 140 selected plants were allowed to naturally intermate in isolation. Selected plants that were susceptible to leaf rust (caused by Puccinia recondita Roberge ex Desmaz. f. sp. secalis) were discarded during seed development. Wrens 96 resulted from the seed increase of selection Cycle 7, which was completed in 1992.

Wrens 96 is a high-yielding, early-maturing cultivar for the Coastal Plain region of the U.S. Southeast for both forage and grain production. Wrens 96 has medium-strength straw and is similar in plant height, test weight, and winter hardiness to Wrens Abruzzi; it matures an average of 4 d later and grows 2 cm taller. In performance trials grown in Georgia from 1994 to 1997, Wrens 96 was equal in forage yield to Wrens Abruzzi and produced an average of 16% more fall and winter forage than ‘FL 401’. Under severe epidemics of leaf rust, Wrens 96 was an average of 18% superior in grain yield to Wrens Abruzzi. Wrens 96 possesses excellent resistance to the current races of leaf rust in Georgia.

Four pastures of Wrens 96 and Wrens Abruzzi were planted in 1994 to evaluate animal performance. Grazing began in early December and ended in mid-March. Herbage mass declined from 1220 kg ha⁻¹ in January to 490 kg ha⁻¹ in March. The in vitro dry matter digestibility (IVDMD) of clipped Wrens 96 samples (751 g kg⁻¹) was higher than that of Wrens Abruzzi (738 g kg⁻¹). Average daily gains (1.27 kg) and carrying capacity (439 d ha⁻¹) of steers (Bos taurus) were not influenced by rye cultivar. The high forage quality of rye supported rapid animal growth.

Breeder seed of Wrens 96 has been released to the Georgia Seed Development Commission for multiplication and distribution and will be maintained by the Georgia Agricultural Experiment Stations, University of Georgia, Georgia Station, Griffin, GA 30223-1797. Small quantities of seed for research purposes may be requested from the corresponding author for at least five years.

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References and Notes

Registration of ‘MS-Supreme’ Bermudagrass

‘MS-Supreme’ (Reg. no. CV-36, PI 604197), an improved turf-type bermudagrass (Cynodon × magennisii Hurd) for release by the Mississippi Agricultural and Forestry Experiment Station on 16 Dec. 1997. MS-Supreme was tested in a greenhouse experiment to compare the leaf morphology of unmowed MS-Supreme blades that were significantly shorter and narrower than Tifgreen and ‘Tifdwarf’ (2). Internodes of MS-Supreme were significantly shorter and smaller in diameter than Tifgreen but considerably different from Tifdwarf. DNA amplification revealed that MS-Supreme is clearly distinguishable from Tifdwarf. MS-Supreme is a high-density, fine-textured cultivar that produces a high-quality golf putting surface. Bermudagrass cultivars were evaluated at two mowing heights on a U.S. Golf Course at Mississippi State University Golf Course (1995 and 1997). MS-Supreme displayed higher leaf rust resistance than Tifgreen at 3.2- and 4.8-mm mowing heights. MS-Supreme established rapidly compared with other dwarf bermudagrass cultivars due to vigorous prostrate growth. In a test conducted at College Station, FL, the establishment of MS-Supreme was similar to Tifgreen but slower than Tifdwarf. At College Station, TX, the MS-Supreme was similar to Tifgreen and faster than Tifdwarf. Leaf texture ratings conducted at Gainesville revealed that MS-Supreme has finer texture than Tifgreen or Tifdwarf.

MS-Supreme is a sterile triploid (2n = 3x = 31) that produces fewer inflorescences than Tifgreen or Tifdwarf. MS-Supreme may be vegetatively propagated. It is recommended for putting greens in regions where bermudagrass is adapted for turf. Because of its dwarf morphology and vigorous growth from stolons, MS-Supreme will require an intense management program that includes thatch control.

Breeder and foundation stock of MS-Supreme will be maintained by the Mississippi Agricultural and Forestry Experiment Station. Plant material for research is available for at least five years upon request to the corresponding author. Application has been made for a U.S. plant patent.

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References and Notes