REGISTRATION OF PRELUDE PERENNIAL RYEGRASS

‘PRELUDE’ perennial ryegrass (Lolium perenne L.) (Reg. no. 88) is an advanced generation synthetic cultivar selected from the progenies of 205 clones. It was developed and released by Lofts, Inc. of Bound Brook, N.J. using germplasm obtained from the New Jersey Agricultural Experiment Station. Prelude was developed from a population improvement program initiated in 1968 to improve disease resistance, stress tolerance, mowing quality, and turf performance. This breeding procedure involved screening over 250,000 seedlings for disease resistance, the evaluation of over 25,000 clones in spaced-plant nurseries, and the study of nearly 2500 single plant progenies in seeded turf trials subjected to frequent close mowing. Plants collected from old turfs in Maryland, Pennsylvania, New York, and New Jersey were the original source of most of the parental germplasm of Prelude. However, plants selected from ‘Elka’, a cultivar of European origin, were used as the maternal parents of 35 of the parental clones of Prelude. The remaining 170 parental clones were selected from a population of 2580 tillers chosen from the best of 2500 turf plots. These tillers were evaluated in a spaced-plant nursery subjected to a heavy natural epiphytotic of crown rust incited by Puccinia coronata var. lolii Brown, allowing the more susceptible plants to be removed from the nursery. Immediately prior to anthesis, 170 plants were selected from this nursery based on attractive appearance, freedom from disease, a rich dark green color, soft leaves, a turf-type growth habit, absence of leaf roll during drought stress, and uniform early maturity. The 170 selected clones were then transferred to an isolated crossing block along with the 35 Elka hybrids for random cross pollination. Seed from these 205 parental clones were used to establish an isolated spaced-plant nursery at Adelphia, N.J. for production of breeder seed. Unattractive plants were removed from this nursery prior to anthesis. Lofts R-40 was the experimental designation of Prelude. The first certified seed was produced and maintained by Lofts, Inc. with the cooperation of the New Jersey Agricultural Experiment Station, and the American Sugar Cane League, and marketed at this time. Prelude has shown good resistance to many races of crown rust, good resistance to the large leaf spot caused by Rhizoctonia solani Kuhn, and moderately good resistance to a winter leaf spot caused by Drechslera spp. This cultivar has shown good winter hardiness on well-drained soils. It has excellent seedling vigor and very good wear tolerance. Prelude shows promise of good performance in full sun and in light to moderate shade.

Application (no. 8200177) has been filed for United States Plant Variety Protection.


References and Notes

1. Professor, Soils and Crops Dep., New Jersey Agr. Exp. Stn., federal specialist, Soils and Crops Dep.; head soils and Crops Dep.; research director, Barenbrug Br., and director of agronomy and research, Lofts, Inc., P. O. Box 146, Bound Brook, NJ 08806. (former vice-president, research, Lofts, Inc., P. O. Box 146, Bound Brook, NJ 08806. Some of this work was supported by NJAES Project no. 15166, supported by New Jersey Agricultural Experiment Station funds and other grants and gifts. Additional support was given by the United States Golf Assoc. Green Section Research Fund, Inc. Registration by Crop Sci. Soc. of Am.

REGISTRATION OF CP 74-383 SUGARCANE

‘CP 74-383’ sugarcane, an interspecific hybrid from Saccharum officinarum L., S. spontaneum L., and S. barbatus L. (Reg. no. 61), was selected from the cross ‘CP 74-383’ made in 1970 at Canal Point, Louisiana sugarcane area. In 60 replicated tests in plant, the new cultivar yielded significantly more stalks (t ha⁻¹) and estimated recoverable sugar (kg ha⁻¹) than CP 65-357, the leading commercial cultivar. The mill content of CP 74-383 is significantly less than CP 65-357.

CP 74-383 is recommended for culture in the Louisiana sugarcane area. In 60 replicated tests in plant, the new cultivar yielded significantly more stalks (t ha⁻¹) and estimated recoverable sugar (kg ha⁻¹) than CP 65-357, the leading commercial cultivar. The mill content of CP 74-383 is significantly less than CP 65-357.

The cultivar is moderately resistant to sugarcane mosaic virus but susceptible to the sugarcane whitefly and sugarcane bacterial leaf spot, Pseudomonas syringae pv. cicatricum (caused by Puccinia melanocephala H. Syd.). Additional support was given by the United States Golf Assoc. Green Section Research Fund, Inc. Registration by Crop Sci. Soc. of Am.

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References and Notes

1. Professor, Soils and Crops Dep., New Jersey Agr. Exp. Stn., federal specialist, Soils and Crops Dep.; head soils and Crops Dep.; research director, Barenbrug Br., and director of agronomy and research, Lofts, Inc., P. O. Box 146, Bound Brook, NJ 08806. (former vice-president, research, Lofts, Inc., P. O. Box 146, Bound Brook, NJ 08806. Some of this work was supported by NJAES Project no. 15166, supported by New Jersey Agricultural Experiment Station funds and other grants and gifts. Additional support was given by the United States Golf Assoc. Green Section Research Fund, Inc. Registration by Crop Sci. Soc. of Am.