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 25 000 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. lolií 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 in western Oregon in 1982.

Prelude is an early maturing, leafy, turf-type perennial ryegrass capable of producing a persistent, moderately dense, attractive, low growing, fine-textured turf with a rich, bright, dark green color. It has exhibited mowing qualities, heat tolerance, and summer performance characteristics which surpass most perennial ryegrasses being marketed at this time. Prelude has shown good resistance to many races of crown rust, good resistance to the large brown patch disease incited 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 in most regions where turf-type perennial ryegrasses are well adapted. It will also provide an excellent temporary turf in heavily shaded locations when seeded in fall or early spring. Prelude is recommended for use on home lawns, parks, athletic fields, institutional grounds, golf courses, and school play areas. It has also performed well for the fall and winter overseeding of dormant warm season turfgrasses on golf greens, tees, fairways, athletic fields and lawns in the southern United States.

Breeder seed is produced and maintained by Lofts Seed, Inc. with the cooperation of the New Jersey Agricultural Experiment Station. Seed classes of Prelude will include breeder, foundation, and certified.

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


References and Notes

1. Professor, Soils and Crops Dep., New Jersey Agric. Exp. Stn.; extension specialist, Soils and Crops Dep.; head soils and plants technician, Soils and Crops Dep.; research director, Barenbrug Breeding, 22068 Case Rd. NE, Aurora, OR 97002. (former vice-president for agronomy and research, Lofts, Inc. P. O. Box 146, Bound Brook, NJ; and vice-president and director of agronomy and research, Lofts, Inc. Publication No. D-15166-8-2, New Jersey Agric. Exp. Stn., Cook College, Rutgers Univ., New Brunswick, NJ 08890. Some of this work was conducted as part of NJAES Project no. 15166, supported by New Jersey Agric. Exp. Stn. funds and other grants and gifts. Additional support was received from the United States Golf Assoc. Green Section Research and Education Fund, Inc. Registration by Crop Sci. Soc. of Am. Accepted 27 June 1983.

REGISTRATION OF CP 74-383 SUGARCANE

‘CP 74-383’ sugarcane, an interspecific hybrid from Saccharum officinarum L., S. spontaneum L., and S. barberi Jeswiet (Reg. no. 61), was selected from the cross ‘CP 65-357’ × ‘L 65-69’ made in 1970 at Canal Point, Fla. CP 74-383 was tested in cooperative research of USDA-ARS, the Louisiana Agricultural Experiment Station, and the American Sugar Cane League.

CP 74-383 is recommended for culture on all soils of the Louisiana sugarcane area. In 60 replicated tests in plant, first and second ratoon cane on heavy and light soil types the new cultivar yielded significantly more millable cane (t ha⁻¹) and estimated recoverable sugar (kg ha⁻¹) than CP 65-357, the leading commercial cultivar. The average sugar content of CP 74-383 is significantly less than CP 65-357. The cultivar is moderately resistant to infection by the sugarcane mosaic virus but susceptible to the ratoon stuntting disease bacterium. It is moderately susceptible to rust (caused by Puccinia melanocephala H. Syd. & P. Syd.), and to sugarcane smut (caused by Ustilago scirpiodes H. Syd.). CP 74-383 is susceptible to the sugarcane borer (Diatraea saccharalis F.).

CP 74-383 is moderately erect, nonbrittle, and well adapted to machine harvesting. Fiber is slightly lower than in CP 65-357, and the variety has been assigned a mill factor of 1.05 compared to 1.02 for CP 65-357. CP 74-383 produces a high population of medium sized green stalks of average stalk weight. Seedcane of CP 74-383 will be maintained by USDA-ARS at the U.S. Sugarcane Field Lab., Houma, LA 70361.

H. P. Fanguy, D. Garrison, and R. D. Breaux

References and Notes


REGISTRATION OF POLARA SWEETCLOVER

‘POLARA’, a new cultivar of white blossom sweetclover (Melilotus alba Desr.) (Reg. no. 41), was developed at the Agriculture Canada Research Station, Saskatoon, Saskatchewan. It was issued License no. 1254 on 20 Feb. 1970.

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References and Notes