initiated at the University of Rhode Island in 1965. The program was aimed at improving turf quality and disease resistance of creeping bentgrasses. The five parental clones of Providence were selected and developed in a breeding program based on selection, evaluation, and improvement of parental germplasm collected from old putting greens throughout the northeastern USA and old putting greens at the University of Rhode Island dating back to the 1920s. This breeding program included screening germplasm and its progenies, in many cases through multiple cycles of selection, for attractive appearance, upright growth habit, strong tillering, dark green color, fine leaf texture, and disease resistance in reduced-maintenance putting green trials at Rhode Island. In 1982, the nine most promising selections were placed in a putting green trial for continued evaluation of the above characteristics. In 1984 the five selections with the best performance and most uniform appearance were vegetatively multiplied to establish a spaced-plant polycross nursery. The Syn1 seed was used to establish an isolated spaced-plant nursery containing 1500 plants at Corvallis, OR. This nursery underwent another cycle of selection for uniformity of type, dark green color, fine leaf texture, disease resistance, high tillering, high seed yield, and uniform maturity. Breeder seed was produced from this block. Foundation seed increase was initiated in the fall of 1987. The first certified seed was harvested from fields located in Oregon in 1988.

Providence is a dark green, leafy, fine-textured creeping bentgrass. It forms a uniform putting green surface, due to its upright growth habit and absence of grain. It produces a turf with high density that resists weed invasion, even with reduced fertility levels. Providence has very good cold tolerance, including good color retention, and good heat and drought tolerance. It germinates quickly and has the ability to establish rapidly. Providence also has high wear tolerance and recuperative ability due to its aggressiveness, density, and strong tillering characteristic. It has shown very good resistance to dollar spot caused by Lanzia and Moellerodiscus spp., which enables it to be used in sites with reduced fertility, dry soils, and/or reduced air circulation. In addition, it has shown very good resistance to brown patch caused by Rhizoctonia spp.

Providence is recommended for new seedings and overseeding of golf-course putting greens, croquet courts, bowling greens, in other situations where very close-mown, uniform turf is desired, and in all areas where creeping bentgrasses are adapted. In these sites it can be used alone or in a blend with other improved creeping bentgrasses. It is also recommended for golf-course tees and fairways, along or in combination with improved turf-type perennial ryegrasses (Lolium perenne L.) or improved creeping bentgrasses. It can be used in full sun or in light-to-moderate shade.

Breeder seed of Providence will be produced and maintained by Seed Research of Oregon, Inc. Seed increase includes three generations of increase from breeder seed, one each of foundation, registered, and certified.

United States Plant Variety Protection Certificate no. 8900287 has been issued for Providence.

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References and Notes
1. C.R. Skogley, Dep. of Plant Sciences, Univ. of Rhode Island, Kingston, RI 02881-0804; and M.F. Robinson and L.A. Brilman, Seed Research of Oregon, Inc., P.O. Box 1416, Corvallis, OR 97339. Original collection work was supported in part by a grant from the U.S. Golf Association. Journal Article no. 2547 of the Rhode Island Agric. Exp. Sta. Registration by CSSA. Accepted 28 Feb. 1991.*Corresponding author.


REGISTRATION OF 'SR 1020' CREEPING BENTGRASS
'SR 1020' CREEPING BENTGRASS (Agrostis palustris Huds.) (Reg. no. CV-145, PI 542088) was developed and released in September 1987 by Seed Research of Oregon, Inc., of Corvallis, OR, using germplasm obtained from the University of Arizona. SR 1020 is a five-clone synthetic cultivar. The first certified seed was harvested from fields located in Oregon in 1987. The Syn1 seed was used to establish an isolated spaced-plant nursery containing 1500 plants at Corvallis, OR. This nursery underwent another cycle of selection for the best performance and most uniform appearance were placed in a putting green trial for continued evaluation of the above characteristics. In 1984 the five selections with the best performance and most uniform appearance were vegetatively multiplied to establish a spaced-plant polycross nursery. In 1987, 93 clones that had spread and persisted over time were collected from old golf greens in Phoenix, Tucson, and Yuma, AZ; the Palm Springs area of California; and from other turf researchers in the southern USA. These clones were evaluated for heat tolerance, turf quality, and the ability to grow well under conditions at Tucson. In 1976, 26 clones that appeared to have the best potential of forming a high-quality turf under conditions of heat and drought stress were placed in a replicated test under putting green conditions. The test was regularly mowed at 6 mm and received minimal fertilization and irrigation, but no herbicides, insecticides, or fungicides. By 1982, some of these clones had lost their stand entirely and the majority were invaded by weeds. Five clones, however, maintained a dense stand with good quality and color on a yearlong basis throughout the test period, in spite of the adverse conditions. These are the five parental clones of SR 1020. The origins of the five clones trace to germplasm obtained from Clemson University, Clemson, SC, and from golf courses in Phoenix and Tucson, AZ.

The five clones were vegetatively increased and transferred to a replicated, isolated, spaced-plant nursery in Forest Grove, OR, for evaluation of maturity, uniformity, and seed yield potential. They proved to be uniform in maturity and turf appearance and all had high seed yields. Breeder seed was produced from this nursery. Breeder seed was used to plant a foundation seed field in 1985 and this field was marked uniformly very well. The very few variants observed were rogued. The first certified seed was harvested in Oregon in 1987.

SR 1020 is a leafy, fine-textured creeping bentgrass with a dark green color. It has a uniform, upright growth habit and very little grain under putting green conditions. It tillers strongly, to form a dense persistent turf that resists weed invasion even with low fertility levels. SR 1020 has excellent heat and drought tolerance and very good cold tolerance. It has high seedling vigor and establishes rapidly, with dense root growth. SR 1020 also has high wear tolerance and recuperative ability. It has shown very good resistance to stem rust caused by Puccinia graminis Pers. subsp. graminicola Urban, leaf rust caused by Puccinia brachypodi G. Otth var. poae-nemoralis (G. Otth.) Cummins, & H.C. Greene crown rust caused by Puccinia coronata Corda, improved resistance to powdery mildew caused by Erysiphe graminis DC., but moderate susceptibility to dollar spot caused by Lanzia and Moellerodiscus spp. SR 1020 has medium, uniform reproductive maturity and high seed yields.

SR 1020 is recommended for new seedings and overseeding of golf-course putting greens, croquet courts, bowling greens, and in other situations where very close-mown turf is desired; in areas where creeping bentgrasses are adapted; and in additional areas where creeping bentgrasses are often lost due to heat and drought. It can be used alone or blended with other improved creeping bentgrasses. It is also recommended for golf-course tees and fairways, alone or in combination with other improved creeping bentgrasses.

Published November, 1991