pollination seed. Pete was evaluated as PMK-24 and was released as germplasm under that designation in 1974. Pete closely resembles wild strains of eastern gamagrass in Kansas and Oklahoma. It is a large, upright, leafy, perennial grass that spreads vigorously from the crown. Its inflorescence consists of 1 to 5 spike-like racemes in an approximately digitate arrangement. Eastern gamagrass is monoecious, having staminate and pistillate spikelets on the upper and lower portion, respectively, of each raceme. In Kansas and Oklahoma, it is considered a warm-season species, but matures somewhat earlier than most other native warm-season grasses and remains green until frost.

The expected area of use of Pete includes the eastern third of Nebraska, the eastern halves of Kansas and Oklahoma, and adjacent areas of Iowa, Missouri, and Arkansas. The cultivar can be grown farther west on irrigated or subirrigated sites. Successful stands of Pete have been established as far east as New York. Pete is suited for pasture, hay, and re-estabishment of native prairie on sites where eastern gamagrass occurred naturally. At Woodward, OK, dry-matter yields (oven-dry weight) ranged from 5.0 Mg ha\(^{-1}\) during the establishment year, to 22.6 Mg ha\(^{-1}\) in the third year. Average in vitro dry-matter digestibility at first harvest at Woodward was 631 g kg\(^{-1}\).

Breeder and foundation seed of Pete will be maintained by the USDA-SCS Plant Materials Center, 3800 South 20 St., Manhattan, KS 66502. There will be one generation each of registered and certified seed. Certified seed is expected to be available in 1991. Pete has been approved for certification by the National Grass Variety Review Board.


References and Notes


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REGISTRATION 'SHERWOOD' PERENNIAL RYEGRASS

'SHERWOOD' perennial ryegrass (Lolium perenne L.) (Reg. no. 126, PI 536017) is an advanced generation synthetic cultivar selected from the maternal progenies of 95 clones. Ten additional clones were included as pollen sources. Sherwood was developed by Pickseed West, Tangent, OR and the New Jersey Agricultural Experiment Station. It was released in August 1988 by Jonathan Green and Sons, Farmingdale, NJ; Cascade International Seed Company, Salem, OR; and Hubbard Seed and Supply Company, Hubbard, OR. Sherwood will be marketed jointly through Jonathan Green and Sons, Cascade International Seed Company, and Hubbard Seed and Supply Company. The experimental designation of Sherwood was SRR.

The seven breeding composites used in the development of Sherwood originated from an extensive program to improve perennial ryegrass for turf use initiated by the New Jersey Agricultural Experiment Station in the spring of 1962. An extensive search was made in old lawn-type turfs for perennial ryegrass plants that had persisted and thrived under the environmental stresses and disease pressures common to the mid-Atlantic region of the USA. The most attractive and useful plants were collected from Central Park in New York City, NY; Patterson and Riverside parks in Baltimore, MD; the campus lawn of the University of Maryland, College Park, MD; and old lawns, parks, and golf courses located in New Jersey and southeastern Pennsylvania. Most selected plants had attained a diameter of over one meter indicating good persistence and adaptation. Clonal evaluation tests and polycross progeny trials led to the development of a number of new turf-type cultivars and to the initiation of population improvement programs using a modified backcross technique combined with various programs of phenotypic and genotypic recurrent selection. These programs combined greenhouse disease screening techniques, single-plant selection in spaced-plant nurseries, and progeny evaluation in closely mowed turf trials. Germplasm diversity was maintained by the development and use of many separate breeding composites. Plants selected from seven of these breeding composites were used to develop Sherwood. Seedings from each breeding composite were established in a large spaced-plant nursery at the Soils and Crops Research Facility of the New Jersey Agricultural Experiment Station, Adelphia, NJ during September 1984. Attractive plants were identified during frequent inspections of the nursery during the following spring and summer. Final selection of the 105 parental clones of Sherwood was made during a period of heat and drought stress in early August. Selection was based on performance records, ability to maintain attractive appearance under conditions of heat, drought, and relative freedom from disease. Propagules of the 105 selected parental clones of Sherwood were established in a replicated, randomized, isolated crossing block for the production of Syn 1 breeder seed. Seed was harvested from the 95 clones that contained an endophytic fungus, Acremonium lolii Latch, Christensen, and Samuels. This endophyte has demonstrated the ability to enhance the turfgrass hosts resistance to a number of harmful insects including billbugs (Sphenophorus spp.) and many lepidopterous species of sod webworms (1,3,4). It may also improve stress tolerance and persistence of the host under some environmental conditions. The Acremonium endophyte appears to be transmitted only by the maternal parent. The first certified seed crops of Sherwood were produced by Cascade International Seed Company and Hubbard Seed and Supply Company in Western Oregon in 1988.

Sherwood is a leafy, persistent, turf-type perennial ryegrass capable of producing an attractive, medium to fine-textured, medium low-growing turf with a bright, dark green color. Reproductive maturity is medium-early. Sherwood has exhibited good heat tolerance and above average winter hardiness in New Jersey turf trials. It has moderate resistance to many, but not all, of the present races of crown rust (incited by Puccinia coronata Corda). However, it is moderately susceptible to the races of stem rust (caused by P. graminis Pers.) currently prevalent in seed production areas of western Oregon. Sherwood has shown good resistance to the large brown patch disease (incited by Rhizoctonia solani Kuhn) and the winter net blotch disease [caused by Drechslera dictyoidea f. sp. perenne (Drechsler) Braemer and Graham]. Sherwood has excellent seedling vigor and is adapted to a wide range of soils. It has excellent wear tolerance under favorable temperature and management conditions and moderate shade tolerance. Its rapid establishment characteristics also make it useful for temporary turf in heavily shaded environments. Sherwood produces little or no objectionable thatch. This enhances long-term turf perform-