REGISTRATION OF ‘MERKERON’ NAPIERGRASS

‘MERKERON’ napiergrass, Pennisetum purpureum Schum., (Reg. no. 119, PI 531087) is an F₁ hybrid between a very leafy dwarf, no. 208, and a tall selection, no. 1. It is short-day sensitive and reaches a height of 4 to 5 m in the fall when it flowers. Merkeron is resistant to the eyespot disease caused by Helminthosporium sacchari (B. de Haan) Butl. It is a perennial and has survived minimum winter temperatures at Tifton, GA as low as −18 °C. It is propagated vegetatively.

Merkeron is a product of the napiergrass breeding project carried on cooperatively by the USDA-ARS and the University of Georgia Coastal Plain Experiment Station at Tifton, GA from 1936 to 1943. Its dwarf parent, no. 208, appeared in a population of selfed eyespot-resistant plants in 1937. Compared with tall napiergrass, no. 208 yielded 9% more leaves but less than half as much total forage. It supplied 300 cow days of grazing plus 27 kg of live weight gain in a 1.3 ha pasture where its forage was stockpiled and not grazed until 15 September.

Napiergrass selection no. 1, a very vigorous tall type, was crossed with no. 208 in 1941 in an effort to increase its leafiness. In 1942, 160 of these F₁ hybrids were tall, leafier, and yielded 35% more than the best common napiergrass checks. The best of these hybrids was sent to experiment stations in Puerto Rico, Cuba, and Panama in 1943. Several years later, J.W. Fortune, Experiment Station, Rio Piedras, Puerto Rico, reported that F₁ hybrid no. 208 × no. 1 had outyielded all other napiergrass, producing 172 T ha⁻¹ of green forage, and had been released under the name ‘Merkeron’. It was increased and established from stem cuttings much the same as sugarcane. Most of the increased plantings were cut when 1 to 2 m tall and were fed to confined milk-producing cows.

Merkeron napiergrass is an excellent example of valuable germplasm concentrated and preserved as a single perennial clone. When a dwarf leafy type was desired, it was found in a selfed progeny of Merkeron that contained the dwarf gene. DwarfTift N75 napiergrass germplasm was a product of that breeding effort (1). Merkeron also carries genes for resistance to the eyespot disease caused by Helminthosporium sacchari (B. de Haan) Butl. In addition, Merkeron has genes for leafiness, winter hardiness, and yield. Napiergrass breeders can expect to obtain any one or all of these genes from Merkeron germplasm by crossing their lines with it.

Merkeron napiergrass will be vegetatively maintained and distributed by USDA-ARS, Coastal Plain Experiment Station, Tifton, GA 31793. Stem cuttings of Merkeron will be supplied upon receipt of a request for the same.

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References and Notes

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REGISTRATION OF ‘PALATON’ REED CANARYGRASS

‘PALATON’ reed canarygrass, Phalaris arundinacea L. (Reg. no. 120, PI 531088) was developed by Land O’ Lakes, Inc., Webster City, IA and released for marketing through Research Seeds, Inc., St. Joseph, MO and Peterson Seed Company, Savage, MN in July 1985. Palaton was tested experimentally as FS3. It is an eight-clone synthetic cultivar. Parent clones were derived from ‘Flare’ (3 clones), ‘Vantage’ (2 clones), ‘Rise’ (1 clone), a polycross progeny (1 clone) and a germplasm collection (1 clone). Parent clones were selected on the basis of clonal and polycross progeny performance for seed and forage yield over several years at Webster City, IA. Parent clones also were evaluated several times for animal palatability, alkaloid content, and seed shattering resistance. Palaton is similar in forage yield and leaf disease resistance to Rise, Vantage, and Flare. It exhibits excellent winter hardiness and persistence and responds to best management practices. In addition to its improved shattering resistance, which helps to improve seed quality, Palaton shows good seedling vigor and stand establishment ability.

Palaton is the same to 1 d earlier in blooming than Vantage and 1 to 2 d earlier than Rise under Iowa conditions. Plant height averages up to 12 cm shorter than Rise and about 6 cm shorter than Vantage. Growth habit and seed color are similar.

Palaton is superior to Rise, Vantage, and Flare in seed yield and seed-holding capacity. It also is lower in alkaloid content, contains only gramine and no tryptamine and carboline, which cause digestive upset in cattle and sheep, and promises to give increased palatability and animal gains from its forage (1). Palaton is adapted for forage and conservation use in the northern half of the continental USA and in southern Canada.

Breeder seed of Palaton was produced on replicated ramets of the parental clones in isolation by Land O’ Lakes, Inc. at Webster City, IA. Breeder seed is maintained in cold storage and parental clones are being maintained by Land O’ Lakes, Inc. Foundation seed fields are planted with breeder seed in Iowa with a limit of 4 harvest yr. Certified seed fields are planted only with foundation seed in northern USA. Only one generation each of breeder, foundation, and certified seed is permitted.

Palaton was accepted by the Grass Variety Review Board in April, 1984. U.S. Plant Variety Protection Certificate no. 8500081 has been issued for Palaton reed canarygrass.

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References and Notes

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REGISTRATION OF ‘VENTURE’ REED CANARYGRASS

‘VENTURE’ reed canarygrass, Phalaris arundinacea L., (Reg. no. 121, PI 531089), was developed by Land O’ Lakes, Inc., Webster City, IA 50595 and released for marketing through Research Seeds, Inc., St. Joseph, MO and Peterson Seed Co. of Savage, MN in July 1985. Venture was tested experimentally as PS2A. It is a six-clone synthetic cultivar. Parental clones were derived from ‘Vantage’ (2 clones), ‘Flare’ (2 clones), a polycross lot of a good seeding clone (1 clone) and a field collection from northern Iowa (1 clone). Parental