REGISTRATION OF TUNDRA BLUEGRASS
(Reg. No. 19)

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'TUNDRA' glaucous bluegrass (Poa glauca Vahl) is a cultivar developed from indigenous Alaskan collections by the Alaska Agric. Exp. Stn. for revegetation use in the Arctic. The species is known also by the common name Greenland bluegrass. Tundra helps to fill a vital need for adapted materials in extreme northern areas with severe environmental conditions. Tundra is a synthetic that traces to bulk seed collections (IAS 231) made along the Sagavanirktok River in arctic Alaska in 1969 and 1970. Twenty-three plants were selected in a spaced-plant nursery at Palmer as the basis for the breeding stock (IAS 305). The selected clones were more upright in growth habit and persisted longer than other, much more prostrate forms occurring in the spaced-plant nursery. Tundra is the first cultivar of the species and the first known variety of arctic origin.

Tundra is a short-to-medium height, tufted bluegrass, growing to ca. 5.5 dm tall. It produces a basal clump of narrow leaves and numerous flowering culms with leaves borne near the base. The inflorescence is short and narrowly pyramidal. Flowering culms are produced at an angle with those on the periphery subject to lodging in open plantings. The species P. glauca occurs throughout much of mainland Alaska, generally occupying dry sites along river courses and on slopes and bluffs.

Tundra has been tested extensively in revegetation trials conducted in the arctic oil field at Prudhoe Bay since 1972. It has been the most reliable performer of the many grasses tested in the severe arctic environment. Tundra dominated mixtures planted on upland sites but is poorly adapted to wet sites. The new cultivar is recommended as a significant component of revegetation mixes for arctic plantings north of the Brooks Range.

Tundra is capable of producing ca. 100 kg/ha of seed in the year of seeding and from 300 to 1,000 kg/ha in the 2nd year of growth. Yields have declined in subsequent years, partly because of vulnerability to diseases, particularly powdery mildew caused by Erysiphe graminis DC. ex Merat under boreal conditions.

Tundra was released in 1976. Breeder seed is produced and maintained by the Alaska Agric. Exp. Stn. Foundation, registered, and certified seed are recognized for seed increase purposes, with seed distributed by the Alaska Crop Improvement Assoc. United States Plant Variety Protection Certificate No. 7700033 has been issued for Tundra.

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REFERENCES