Registration of ‘Benson’ Beach Wildrye

‘Benson’ beach wildrye [Leymus mollis (Trin.) Hulten; syn. Elymus mollis Trin.] (Reg. no. CV-161, PI 567896) was developed at the Alaska Plant Materials Center, Division of Agriculture, Alaska Department of Natural Resources. Benson was tested as AK PMC 80-7 and released by the Plant Materials Center in May 1991 as a vegetatively propagated cultivar of a native species suitable for coastal erosion control and dune stabilization in areas where natural erosion would prevent the traditional seedling practices. The gene base for this vegetatively propagated cultivar is from seed collected 9 Sept. 1980 near the U.S. Coast Guard Loran Station, Narrow Cape, Kodiak, Alaska. The seed collection consisted of four seed heads from a vigorous, isolated stand measuring ~6 m² (1).

The cultivar name, Benson, was selected to honor John Ben (Benny) Benson. John Benson found his place in Alaskan history by designing the state flag. Both John Benson and Benson beach wildrye were native to Kodiak Island.

Beach wildrye is a perennial, sod-forming grass most often found on sandy beaches forming belts along the shore (2). While usually associated with coastal dunes, the species can be found along large inland lakes occupying the same relative shoreline areas as in marine coastal areas (3). Benson beach wildrye (L. mollis) is also referred to as American dunegrass (4)—in contrast to European dunegrass, which is also a beach wildrye, but is also referred to as American dunegrass, which is also a beach wildrye, but in a different species: L. arenarius (L.) Hochst. Benson is a tall, strongly rhizomatous cultivar. This circumpolar species ranges from Siberia easterly through North America to Greenland.

Evaluation of AK PMC 80-7 was initiated in 1981 at the Plant Materials Center, Palmer, AK. This accession outperformed 17 other accessions for hardiness and 18 accessions for vegetative spread from 1981 to 1985. Off-station evaluations began in 1983 at seven locations in Alaska, with tests ranging in duration from 2 to 8 yr. All evaluations were based on performance under reclamation and severe erosion control treatments. This cultivar was not evaluated for forage production. Benson was tested and released to meet a critical need for a native cultivar that would rapidly stabilize coastal areas where natural erosion would prevent satisfactory results by traditional seeding methods (1).

Benson beach wildrye seed will not be released for commercial production, but will be maintained at the Alaska Plant Materials Center as an alternative genetic source of the cultivar. Vegetative reproduction of the cultivar is the only authorized means of increase.

Vegetative production of Benson will be recognized as parent, generation I, generation II, and certified. Parent stands will be grown and maintained at the Alaska Plant Materials Center. Generation I and II class sprigs will be available to growers through Alaska Seed Growers, Inc., PO. Box 895, Palmer, AK 99645.

Registration of ‘Reeve’ Beach Wildrye

‘Reeve’ beach wildrye [Leymus arenarius (L.) Hochst.; syn. Elymus arenarius] was developed and released by the Alaska Plant Materials Center, Division of Agriculture, Alaska Department of Natural Resources. Reeve was tested as PI 345978 and released in 1979 to provide an adapted cultivar for coastal reclamation and dune stabilization.

The name Reeve was chosen to honor Robert G. Reeve, a pioneer in Alaskan aviation history. Reeve was common throughout the coastal areas of Alaska, Aleutian and Pribilof Islands, a region Robert Reeve began his aviation career with commercial air service in 1942 (1).

Reeve beach wildrye was developed by mass selection of a 6-m row of PI 345978 in 1981. The original accession was received from the U.S. National Plant Germplasm System in 1979. The accession was collected by the University of Oslo Botanical Garden, Oslo, Norway, and provided to the U.S. National Plant Germplasm System on 10 Sept. 1979. Beach wildrye is also called American dunegrass (2). Leymus arenarius distinguishes beach wildrye to northern Europe and Scandinavia as a separate species from Elymus mollis (syn. Elymus mollis, E. arenarius subsp. arenarius) indigenous to Asia, North America, Greenland, and Europe. Leymus arenarius is also called European dunegrass, which is also a beach wildrye, but in a different species: Leymus mollis (Trin.).

Evaluation of PI 345978 was initiated in 1979 at the Plant Materials Center at Palmer. This accession outperformed 18 other accessions of beach wildrye in hardiness and seed production from 1979 to 1983.

Off-station evaluations began in 1983 at 22 locations with tests ranging in duration from 1 to 6 yr. All evaluations were based on performance under reclamation and erosion control treatments. Reeve was not evaluated for forage production.

The most outstanding attribute of Reeve beach wildrye is its ability to produce seed in commercially acceptable quantities. Beach wildrye is typically a poor seed producer in North America. Yields of clean seed may exceed 112 to 224 kg ha⁻¹. Seed production does not occur in production fields until the third growing season after planting.

Reeve beach wildrye seed is very large, averaging 72 ± 30 seeds kg⁻¹. Seed production does not occur in production areas until the third growing season after planting. Seed production does not occur in production areas until the third growing season after planting.

Reeve beach wildrye will be recognized in generation, registered, and certified seed classes. Beach wildrye seed will be maintained by the Alaska Plant Materials Center as an alternative genetic source of the cultivar. Vegetative reproduction of the cultivar is the only authorized means of increase.

Vegetative production of Reeve will be recognized as parent, generation I, generation II, and certified. Parent stands will be grown and maintained at the Alaska Plant Materials Center. Generation I and II class sprigs will be available to growers through Alaska Seed Growers, Inc., PO. Box 895, Palmer, AK 99645.