Registration of Icy Blue Canada Wildrye Germplasm

Icy Blue Canada wildrye (Elymus canadensis L.) germplasm (GP-92, PI 641962) was released 10 June 2004 by the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS), Indiana Association of Soil and Water Conservation Districts, and Indiana Department of Natural Resources. This pre-variety germplasm is eligible for seed certification as a tested class under Association of Official Seed Certifying Agencies (AOSCA) guidelines (AOSCA, 2003) and is justified because existing commercial sources of Canada wildrye native to the Midwest and Great Lakes regions of the USA have not been tested for their usefulness in prairie restoration, erosion control, and wildlife habitat enhancement practices. Icy Blue was tested under the designation ACC: 9084347 by USDA NRCS.

Icy Blue germplasm was originally collected in La Porte County, IN (R 4W, T 36N, Section 8) by Dave Burgdorf and Bill Veldt, NRCS, in October 1999. This area is classified (USDA NRCS, 2006) as Major Land Resource Area 98 (Southern Michigan and Northern Indiana Drift Plain). Canada wildrye is a native perennial bunchgrass that grows to 1.3 m tall with erect or arching culms and flat, wide (up to 2 cm), pointed leaves (Hitchcock and Chase, 1950). Icy Blue has a whitish, waxy bloom on the leaf surface and the stems, giving it a distinctive “icy blue” color. Auricles are claw-like and clasping, arising from a broad yellowish or light green collar. The thick and bristly spike can reach 25 cm in length, often bearing two or three spikelets to a node. Awns grow to 5 cm and are usually outwardly twisted.

Icy Blue germplasm and 15 other Canada wildrye accessions from Indiana, Illinois, Michigan, and Ohio were established at Rose Lake Plant Materials Center, East Lansing, MI, in 2000 and evaluated during 2001 and 2002. In 2001 Icy Blue outperformed 1, 2, and 4 accessions in fungal disease damage (caused by Helminthosporium spp.), early vigor, and lodging, respectively, and was not significantly different from all other accessions. In 2002, Icy Blue outperformed eight other accessions in lodging and two in disease, with no significant differences from all other accessions. These data suggest that Icy Blue is superior to other accessions when all traits are considered simultaneously.

Canada wildrye grows well on soils found on sandy shores and dunes, wooded areas, prairies, and disturbed sites throughout much of North America. The anticipated areas of use for Icy Blue are the Great Lakes and Midwest regions and are within the species’ range. Icy Blue is intended for use in prairie restoration, erosion control, and wildlife habitat enhancement.

Limited quantities of seed are available on request from Dave Burgdorf (dave.burgdorf@mi.usda.gov) at the USDA NRCS, Rose Lake Plant Materials Center for the first 5 yr. Afterward, seed will be made available from the National Plant Germplasm System (NPGS). Recipients of seed are asked to make appropriate recognition of the source of germplasm if it is used in the development of a new cultivar, germplasm, parental line, or genetic stock.

J.C. DURLING,* J.W. LEIF, AND D.W. BURGDORF

References


USDA Rose Lake Plant Materials Center, 7472 Stoll Rd., East Lansing, MI 48823. Received 12 Apr. 2006. *Corresponding author (john.durling@mi.usda.gov).

doi:10.2135/cropsci2006.01.0048