United States Department of Agriculture
Natural Resources Conservation Service
Pullman, Washington

NOTICE OF RELEASE OF UNION FLAT SELECTED CLASS GERMPLASM BLUE WILDRYE

The Natural Resources Conservation Service, U.S. Department of Agriculture announce the naming and release of Union Flat selected class Germplasm Blue Wildrye (*Elymus glaucus*). Union Flat Germplasm Blue Wildrye has been assigned the Plant Materials Accession number 9080250, and the Plant Introduction number is PI 654471.

Collection Site Information: Seed was collected by David Skinner, Pullman PMC Lead Farmer, on 7/21/1997 on an east facing 20-60% slope above Union Flat Creek. The collection was made in section 33, T14N, R44E in southwestern Whitman County, WA. The collection site is 1800 feet elevation and underlain by a Gwin-Linville-Tucannon silt loam soil. The associated species on the site included *Crataegus douglasii*, *Heracleam lanatum*, and *Pseudoroegneria spicata*.

Description: Union Flat germplasm is a short-lived, cool-season, native perennial bunchgrass. It is upright, heights at Pullman typically are 150-180 cm, and stems are copious. Individual plants are typically no more than 40 cm wide at the base, and basal leaves typically are no more than 50 cm tall. The leaves and stems retain light green - moderate green coloration at seed maturity. The auricles are weakly clasping and don't extend around the stem. Ligules are flat, smooth, and short (1mm). Stems at anthesis are bright green, smooth, and widths rarely exceed 3 mm. Stem joints are glossy, dark purple, cylindrical, 3 mm long, and exhibit a purple blush extends 3-4 mm below the joint. Leaves are upright along stem, no more than 9 mm wide, mid vein on backside of leaf is prominent for 2-3 cm, and the basal leaves are more lax. Leaf rusts do occur but stem rusts have not been observed. Seedheads rarely exceeds 200 mm and light green at maturity. Spikelets are tightly clustered to rachis and spikelets are usually comprised of 3 or more seeds. Seeds are awned and there are approximately 134,000 seeds per lb. Awns are 1-1.5x the length of the seed, straight, serrated, and light colored.

Method of Selection: Union Flat germplasm was selected for rapid emergence and growth rate. It was compared against 3 other ecotypes of blue wildrye: 'Elkton', 'Arlington' and an accession collected on the east slope of the Cascade Mountains. It is a more profuse seed producer than the other ecotypes at the Pullman Plant Materials Center.

Ecological Considerations: Blue wildrye is an early seral grass that typically does not persist much more than 3-4 years in natural settings. It responds well to disturbances and is frequently abundant on cutover areas, burns, and road shoulders. Blue wildrye does not interfere with tree regeneration. Blue wildrye is palatable and many ungulates utilize it during the summer months.

Ecological Considerations and Evaluation: An Environmental Evaluation of Plant Materials Releases (attachment was completed using guidelines established by National Plant Materials Program (USDA-NRCS, 2000), and the best available information for this species. Results of this evaluation determined that Union Flat Germplasm blue wildrye was suitable for release based on the criterion contained in this document. This conclusion is mainly due to the fact that blue wildrye is a naturally occurring species in Washington and adjoining states therefore not constitute an introduction of an exotic species into local ecosystems. Any negative impacts on other native plant species would likely be minimal to non-extent.

Conservation Use: The primary use of Union Flat germplasm is upland wildlife habitat plantings. It is also very useful for buffer plantings, critical area stabilization, range revegetation, and vegetating abandoned forest roads.

Areas of Adaptation: Blue wildrye is a native grass found in prairies, foothills, and mountains of several western states and Canadian provinces. It occurs in much of Washington except for those areas that receive less then 14-inches of annual precipitation. Blue wildrye can be found near sea level and above timberline. It grows on well drained deep soils to skeletal rocky soils. It commonly occurs in conifer forested areas of the west. It tolerates partial shading. 9080250 Blue wildrye is best adapted to the Palouse region and adjacent foothills and mountains.

Availability of Plant Materials: The USDA NRCS Pullman Plant Materials Center will maintain Breeder Seed. The Washington State Crop Improvement Association will maintain Foundation Seed (G3, G4) which will be available for the production of Certified Seed (G4, G5). There will NO Registered Class seed of this release.

The USDA Plant Materials Center will maintain Breeder seed (G1, G2, G3) until 2025. After which the PMC will either elevate the release to a full cultivar release or drop the release. Any seed produced after the 5th generation will be common seed and not eligible for certification.

References:
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Merrill, E.H., A. Callahan-Olson, K. Raedeke. 1995. Elk (Cervus elaphus roosevelti) dietary composition and quality in the Mount St. hellen's blast zone. Northwest Sci. 69:9-18.

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Signatures for release of:

Union Flat Germplasm Blue Wildrye (*Elymus glaucus*)

8/27/08

for R. "Gus" Hughbanks
State Conservationist
United States Department of Agriculture
Natural Resources Conservation Service
Spokane, Washington

Date

8/28/08

Mike Hubbs
Director, Ecological Sciences Division
United States Department of Agriculture
Natural Resources Conservation Service
Washington, D.C.

Date