

A Conservation Plant Released by The Natural Resources Conservation Service Aberdeen Plant Materials Center, Aberdeen, Idaho

ANATONE GERMPLASM bluebunch wheatgrass

***Pseudoroegneria spicata* (Pursh.) Á.
Löve ssp. *spicata***

Anatone Germplasm is a selected class, natural-track, pre-variety germplasm of bluebunch wheatgrass released in 2003 by the USDA-Forest Service Rocky Mountain Research Station, USDI-Bureau of Land Management, USDA-Natural Resources Conservation Service, Idaho and Utah Agricultural Experiment Stations, USDA-Agricultural Research Service and the Utah Department of Natural Resources Division of Wildlife Resources.

Description

Bluebunch wheatgrass is a native, long-lived, perennial cool-season bunchgrass common throughout semiarid areas of the Intermountain West. Plants are 18 to 40 inches tall with abundant leaves that are green to blue in color. Spikes are generally loose and open with spikelets about the same length as the rachis internodes at maturity. The lemma awns are prominent and divergent.

Source

Anatone Germplasm bluebunch wheatgrass was selected from a population growing at a site in Asotin County, Washington in 1988 by the USDA-Forest Service Rocky Mountain Research Station. The collection site is at an elevation of 3,200 ft with an estimated annual precipitation of 18 inches. The site is classified as Major Land Resource Area (MLRA) 10 (Palouse and Nez Perce Prairies) and Level III Ecoregion 10 (Columbia Plateau). Associated plants include Idaho fescue (*Festuca idahoensis*), Sandberg bluegrass (*Poa secunda*), and mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*).

Conservation Uses

Anatone Germplasm bluebunch wheatgrass is intended for use on valley and foothill rangelands for re-establishment of native plant communities as well as vegetative firebreaks, critical area stabilization and reclamation purposes. It has good seedling vigor and establishes rapidly. Its extensive root system gives it the ability to survive and thrive under dry conditions, making it ideal for conservation plantings in areas receiving 10 to 20 inches annual precipitation. While bluebunch wheatgrass is compatible with slower developing native species such as thickspike wheatgrass, western wheatgrass and needlegrass, it does not compete well with aggressive introduced grasses.

Anatone Germplasm can be used for native hay production but is better suited to grazing use. Bluebunch wheatgrass is palatable to all classes of livestock and wildlife. In spring, the protein levels can be as high as 20% decreasing to about 4% protein as the forage matures and cures. Digestible carbohydrates remain about 45% throughout the active growth period.

Area of Adaptation and Use

Anatone Germplasm bluebunch wheatgrass is recommended for the Palouse and Nez Perce Prairies, the Snake River drainage, southern Idaho, northern Nevada, and northern Utah. It is best adapted to silt loam to clay loam soils receiving 10 inches or more annual precipitation.



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Establishment and Management for Conservation Plantings

For pure stands, the recommended seeding rate for bluebunch wheatgrass is 8 pure live seed (PLS) pounds per acre if planted with a drill and 16 pounds per acre if broadcast. Seeding rate should be adjusted to reflect desired percentage in the seed mix. There are approximately 100,000 seeds of Anatone Germplasm bluebunch wheatgrass in a pound.

Bluebunch wheatgrass should be seeded in late fall with a drill to a depth of 1/4 to 1/2 inch in a firm, weed-free seedbed. Broadcast seeding should be followed with a cultipacker to provide good seed to soil contact. Stands may require weed control measures during establishment. Application of broadleaf herbicides should not be made until plants have reached the four to six-leaf stage. Mow weeds at or prior to their bloom stage. Grasshoppers and other insects may also damage new stands and pesticides may be needed.

Protect new plants from grazing for at least two growing seasons. Mature stands should be protected from heavy grazing, especially during flowering to ensure sufficient seed production to maintain the stand. Once established, bluebunch wheatgrass is competitive with weedy species, but it can be crowded out by aggressive introduced species.

Ecological Considerations

Bluebunch wheatgrass is native to the Intermountain West and has no known negative impacts on wild or domestic animals. It is not considered a weedy or invasive species but can spread to adjoining vegetative communities under ideal environmental conditions.

No detrimental disease symptoms or insect problems have been observed in plantings of Anatone Germplasm. It may be susceptible to stripe rust and mildew if conditions are favorable for these pathogens.

Seed and Plant Production

Seed production of Anatone Germplasm bluebunch wheatgrass has been very successful under cultivated conditions. Row spacing of 24 to 36 inches is recommended under irrigation and 36 inches under dryland conditions. Recommended seeding rate is 3 to 4 PLS pounds per acre. Cultivation is needed to maintain rows and weed-free conditions. Seed fields are productive for three to four years. Average production of 75 to 100 lb/ac under dryland conditions and 150 to 250 lb/ac under irrigated conditions can be expected. Harvesting is best completed by swathing, followed by combining of the cured rows. The seed heads readily shatter and require close scrutiny of maturing stands.

Availability

For conservation use: Anatone Germplasm seed is widely available from commercial seed vendors.

For seed or plant increase: G1 and G2 Certified seed is maintained at the USDA-NRCS Plant Materials Center in Aberdeen, Idaho. G2 and G3 seed is available through the University of Idaho Foundation Seed Program and Utah Crop Improvement Association. Certification of seed shall be limited to G2, G3, and G4 generations of seed.

For More Information

Aberdeen Plant Materials Center, 1691A South 2700 West, Aberdeen, Idaho | Phone: 208-397-4133
<https://www.nrcs.usda.gov/plant-materials/idpmc>



Citation

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

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