



United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

Pilgrim Germplasm velvet rosette grass

Dichanthelium scoparium (Lam.) Gould

A Conservation Plant Release by USDA NRCS East Texas Plant Materials Center, Nacogdoches, Texas



Figure 1. Production field of Pilgrim Germplasm velvet rosette grass at the East Texas Plant Materials Center.

Pilgrim Germplasm velvet rosette grass was released in 2007 by the USDA-Natural Resources Conservation Service (NRCS) East Texas Plant Materials Center (ETPMC).

Description

Pilgrim Germplasm is a short lived, perennial, warm season, bunchgrass. A basal rosette is produced in late fall or early winter and stems begin to grow in the spring. The erect, coarse, thick culms grow to a height of 40 inches. The lower culm internodes, sheaths, and blades are very pubescent while the upper culms and leaves are moderately pubescent to glabrous. An open seed panicle is produced in summer and a closed spikelet in the fall. There are approximately 747,000 seeds per pound.

Source

The original seed of Pilgrim Germplasm was collected in 1990 in Camp County, Texas. Pilgrim Germplasm was selected from thirty-three east Texas collections. Collections were evaluated for vigor, seed production, foliage height, and width at the ETPMC. Pilgrim Germplasm exhibited improved vigor compared to 'Tioga', the commercial standard. Pilgrim Germplasm also exhibited better drought tolerance and seed production.

Conservation Uses

Pilgrim Germplasm is a pioneer species and establishes rapidly for critical area plantings. Its stand reduces over time allowing succession of native, apex plant communities. It also provides a food source for songbirds, small mammals, and game birds. Basal rosettes provide winter forage for wild turkey and white tailed deer.

Area of Adaptation and Use



Figure 2. Area of adaptation for Pilgrim Germplasm.

Pilgrim Germplasm is adapted to coarse and medium textured soils with a pH of 4.5 to 7.5, in areas that receive 30 to 50 inches of rain per year. This plant frequently grows in open or partially open areas along moist ditches and swales in sandy soils.

Establishment and Management for Conservation Plantings

Establish Pilgrim Germplasm by direct or broadcast seeding. The seed is small and should be planted to a depth of approximately 1/8th of an inch. Plant the seed in the spring into a firm, weed-free seedbed and cultipack. Use 3 pounds of pure live seed per acre. To limit weed growth, do not apply fertilizer during the first year of establishment. Mechanical weed control consists of mowing above the grass to destroy seed heads of annual weed species before they produce viable seed. Pilgrim Germplasm is generally not planted as a livestock forage.

Seed and Plant Production

Drill seed into a firm, weed free seedbed being careful not to plant too deeply. Increase the recommended seeding rate by 5 to 10% from the conservation planting rate to ensure a solid, uniform stand. Weeds may be controlled through mechanical and chemical means. Irrigation maybe needed in dry years to ensure seed set and fill.

Pilgrim Germplasm sets seed twice per year. The first, an open seed panicle, is produced in June or July; the second, a closed panicle inside the leaf sheath, is produced in early fall. The closed panicle may be harvested via direct combining. Harvest during this time typically yields higher quality seed but less quantity than open seed panicle harvest. Therefore, closed panicle harvest is generally not performed. Pilgrim Germplasm may be mowed in the fall to help redistribute the closed panicle seed and decrease gaps in the stand as production fields age. The open panicle produces the most seed, and may be harvested in June or July using a flail-vac or Native Seedster®. The open panicle seed may have sticky, honeydew like residue that makes direct combining difficult. Estimated cleaned seed yield per acre is five pounds per acre. After harvest, the material is scalped, air dried, and cleaned using a three screen air cleaner.



Figure 3. Photo showing the open panicle of Pilgrim Germplasm.

Availability

For conservation use: Currently, seed of Pilgrim Germplasm is not commercially available. The only seed source is the East Texas Plant Materials Center.

For seed or plant increase: Foundation seed can be obtained from the Texas Foundation Seed Service.

For more information, contact:
East Texas Plant Materials Center
6598 FM 2782, Nacogdoches, Texas
Phone: (936) 564-4873
Fax: (936) 552-7924
<http://plant-materials.nrcs.usda.gov/etpmc/>

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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