



A Conservation Plant Released by the Natural Resources Conservation Service
Brooksville Plant Materials Center, Brooksville, Florida

Sea Islands Germplasm

sweetgrass

Muhlenbergia filipes M.A. Curtis



Figure 1. The pink to purple flowers of Sea Islands Germplasm sweetgrass are borne in a feathery flower head

Sea Islands Germplasm is a selection of sweetgrass (*Muhlenbergia filipes*) [synonym *M. sericea* (Michx.) P.M. Peterson] released in 2014 by the USDA, Natural Resources Conservation Service, Brooksville Plant Materials Center in Florida.

Description

Sweetgrass, also known as gulfhairawn muhly, is a clump-forming perennial grass found in southeastern coastal plant communities along the Atlantic and Gulf of Mexico. It has narrow, involute (rolled) leaves that can grow to almost 4-feet tall. The purplish flowers are held in an open, diffuse panicle-type seedhead.

A related species, hairawn muhly (*M. capillaris*) looks very similar to sweetgrass, but does not grow on coastal sites. In fact, sweetgrass was once considered to be a variety of *M. capillaris*, although it is now classified as a separate species. Besides habitat differences, characteristics that distinguish between the two species occur in the spikelets or seed. The awn is shorter for sweetgrass compared to hairawn muhly. However, the primary feature used to distinguish

between the two is that sweetgrass has two hair-like bristles (called setaceous teeth), one located on each side of the awn, whereas hairawn muhly has no setaceous teeth.

Source

Sea Islands Germplasm is derived from sweetgrass seed collected in the 1990s on the beach fronts of Kiawah Island, South Carolina, and Little Saint Simons Island, Georgia by Dr. Robert Dufault of Clemson University. This seed was cultivated at the Clemson Coastal Research and Education Center in Charleston, South Carolina. Seeds and plants were given to the Brooksville Plant Materials Center for accessioning at the request of Tommy Socha, U.S. Army Corps of Engineers, Charleston District. The accession number assigned was 9060701.

Conservation Uses

Sweetgrass leaves or “threads” are the main component used for African-coiled basketry made by the Gullah/Geechee community around Mount Pleasant and Charleston, SC. The common name “sweetgrass” comes from the fresh, corn-silk fragrance of the threads. Sea Islands Germplasm is being used by the Corps of Engineers in coastal restoration plantings in South Carolina to reduce soil erosion and to reestablish populations that have been displaced by development and damaged by hurricanes and tropical storms. These reintroductions are being made in areas that are accessible for harvesting by area basketmakers. Sea Islands Germplasm can also be planted in landscapes as an ornamental.

Area of Adaptation and Use

Sweetgrass is found growing along the coast and in coastal woodlands. It naturally occurs in interdune and on back dune sites. Sea Islands Germplasm was collected in MLRA 153B, the Tidewater Area. It is well adapted for use in South Carolina, Georgia, and Florida.



Figure 2. Typical stand of sweetgrass in a coastal interdune area

Establishment and Management for Conservation Plantings

Restoration planting sites should be similar to those in which sweetgrass would be found in nature. These sites should be located on back dune areas, not on the fore dunes, where plants will be exposed to more sand movement and salt spray. Any required reshaping or other mechanical operations to the site should be completed prior to planting. Plug planting stock will be used for coastal restoration plantings (photo right). Plant plugs in a 3- by 3-foot or 4- by 4-foot spacing. Crowns should be set about 2 inches below the surface. A slow-release fertilizer and/or a hydrophilic polymer gel may be placed in the planting hole. For additional information on planting techniques, refer to the publication “Native Plants for Coastal Dune Restoration: What, When and How for Florida”, located at <http://www.plant-materials.nrcs.usda.gov/pubs/flpmspu7474.pdf>. Plants for landscape use will generally be larger, containerized stock. Plant these with the top of the container media level with the soil surface and irrigate the plants weekly until established.



Figure 3. Plugs of Sea Islands Germplasm ready for planting

Ecological Considerations

Sea Islands Germplasm poses little risk of harming native communities in the area of intended use. No insect or disease pests have been noted.

Seed and Plant Production

Sweetgrass flowers from mid-September to late October and seeds can be collected between Thanksgiving and Christmas. Seeds must be totally mature before harvesting; test to see if they release easily from the seedhead before attempting collection. Seeds germinate readily without treatment. They should be sown on the surface or only lightly covered with potting soil. A faster propagation method is to divide the clumps. It is important to not divide them into sections that are less than ½ inch in diameter, because survival of smaller sections will be poor. Leaves should be trimmed before dividing so that the clumps are easier to handle. Regardless of the propagation method, a tray with large, cone-like deep plugs should be used (i.e., a 1-inch diameter by 6-inch deep configuration). The growing medium should allow for ample drainage and should be kept moist, but not wet, to aid root growth of this coastal species. Seedlings/divisions will require fertilization throughout the nursery production period and can be fertilized with a low to medium rate of either slow release fertilizer or a liquid fertilizer solution.

Availability

For conservation use: Planting stock of Sea Islands Germplasm was distributed to several coastal restoration nurseries in the Southeast in 2014 and 2015.

For seed or plant increase: Breeder planting stock is being maintained at the Brooksville Plant Materials Center and is available for distribution to interested commercial producers. Plants may be obtained by contacting the Plant Materials Center.

Citation

Release Brochure for Sea Islands Germplasm sweetgrass (*Muhlenbergia filipes*). USDA-Natural Resources Conservation Service, Brooksville Plant Materials Center, Brooksville, Florida 34601. Published July 2018.

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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