



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

Purple Haze Germplasm Hairawn Muhly

Muhlenbergia capillaris (Lam.) Trin.

A Conservation Plant Release by USDA NRCS Brooksville Plant Materials Center, Brooksville, Florida



Purple Haze Germplasm hairawn muhly (foreground) in evaluation plots at the North Florida Research and Education Center (NFREC) in Quincy, Florida. Photo by Jim Aldrich, NFREC.

Purple Haze Germplasm hairawn muhly (accession number 9059929) was selected as an improved type of this native grass for use in the landscape. It was released in 2012 in cooperation with the University of Florida Institute of Food and Agricultural Sciences.

Description

Purple Haze is an upright to vase-shaped clump grass that reaches 3- to 5-feet when in flower. The basal leaves are 25- to 45-inches long and the leaf blades are usually rolled inwards and end in a sharp, pointed tip. Purple Haze differed from the other muhly accessions tested at the Brooksville Plant Materials Center (PMC) in that the leaves remained green late in growing season when the other types developed brown spots or tips. The tiny purplish flowers (spikelets) and seeds are produced in densely branched inflorescences held above the foliage. In Florida, plants generally flower from September to October.

Conservation Uses

Purple Haze is recommended for use as an ornamental. It is especially well adapted for plantings that are designed for low or reduced water usage, such as industrial, municipal, and roadside plantings. Purple Haze can also be a useful plant for restoration of wildlife habitat and native grasslands in portions of the Southeast where commercial sources of native seed are limited. It is not a palatable species and therefore is not recommended for forage production.

Area of Adaptation and Use

Purple Haze is a vegetative increase of plants collected in southern Jefferson County, Florida. It was one of eleven

accessions selected by PMC personnel for superior ornamental appearance from an initial assembly of 94 hairawn muhly accessions collected in Florida and Georgia. Additional evaluations comparing the eleven accessions to hairawn muhly plants from commercial sources were conducted at the PMC and the North Florida Research and Education Center (NFREC) in Quincy, Florida. Purple Haze was the top performer at both sites. Purple Haze Germplasm should be well adapted for use throughout Florida. Although not tested outside of Florida, it is likely to also be suitable for use along the Atlantic coast, as far north as South Carolina, and in the coastal plain of Georgia, Alabama, and Mississippi.

Establishment and Management for Conservation Plantings

Purple Haze plants can be planted almost year round in the Southeast. However, if irrigation is not available, it is recommended that transplanting be done during times of the year when ample rainfall is expected. The planting site should be free of weeds, especially perennial ones, that may negatively affect the appearance of the planting. Plants should be spaced 2-3 feet apart. A mass planting of numerous plants will create a greater visual effect than single plants. The planting hole should be dug no deeper than the top of the root ball in the container. Since Purple Haze is a clump grass, it is well adapted to use in landscape beds with fabric weed barriers installed. If weed barriers are not used, it is recommended that an organic mulch be used around the plants to limit weed growth and improve retention of soil moisture. Fertilizer is generally not needed, however, if growth of the plants is poor, they can be fertilized with a low rate of a slow release fertilizer (i.e., Osmocote 14-14-14 at 7 lbs per square foot). The spent flower heads turn tan and provide visual interest in the winter. Most individuals prefer to cut the plants back in the spring to remove the old growth. Plants should be cut no shorter than 6 inches in height to prevent damage to the growing points.

Ecological Considerations

Hairawn muhly is classified as a native species in the anticipated areas where this release will be used. There is limited potential for Purple Haze Germplasm to become weedy. These plants lack rhizomes and stolons and will therefore have limited vegetative spread. Although viable seed is produced, a decade or more of widespread use in landscape plantings has shown little tendency to spread by this means. This species is a minor component of Florida rangelands and no negative impacts to livestock or wildlife have been documented.

Seed and Plant Production

Seed of Purple Haze will not breed true, so it is propagated vegetatively, by division of the clumps. The clump should not be divided into sections that are less than ½ inch in diameter, because survival of smaller propagules will be poor. Leaves should be trimmed to 4 to 8 inches in length prior to dividing so that the clumps are easier to handle. A tray with large, cone-like deep plugs (i.e., 1-inch diameter by 6-inch-deep cell) can be used for initial propagation. Plants will then generally be transplanted into commercial gallon-size nursery or 6-inch diameter greenhouse pots prior to sale. The growing medium should allow for ample drainage and should be kept moist, but not wet, to aid root growth. Plants will require fertilization periodically during the nursery production period and can be fertilized with a low to medium rate of either slow release fertilizer (i.e., Osmocote 14-14-14 at 3-8 grams per pot) or a liquid fertilizer as indicated on the product label.



Seedheads of Purple Haze Germplasm showing purple spikelets
Photo by Janet Grabowski, Brooksville PMC.

Availability

For plant increase:

First Generation (G0) breeder stock is being maintained at both the Brooksville PMC and the NFREC in Marianna. Purple Haze Germplasm is not being released as a proprietary material and planting stock will be available to all interested growers. However, only a limited quantity of plantlets will be supplied to each grower and it is their responsibility to increase plants for commercial sale.

To request planting material, contact either:

USDA, NRCS Florida State Office
Attn: Plant Materials Specialist
2614 NW 43rd Street
Gainesville, FL 32606-6611

or

North Florida Research and Education Center
Attn: Forage Breeder
3925 Highway 71
Marianna, FL 32446-7906

For conservation use: Plants will be marketed to the public by commercial nurseries. Contact the Florida Plant Materials Specialist for a list of growers. As stated in the Seed and Plant Production section, most stock will be sold in individual pots (gallon or 6-inch). However, if plants are to be utilized on restoration sites, nurseries may offer plugs, which will allow larger areas to be planted more economically.

For more information, contact:
Brooksville Plant Materials Center
14119 Broad Street
Brooksville, Florida 34601
Phone (352) 796-9600
Fax (352) 799-7305

Citation

Release Brochure for Purple Haze Germplasm hairawn muhly (*Muhlenbergia capillaris*). USDA-Natural Resources Conservation Service, Brooksville Plant Materials Center, Brooksville, Florida 34601. Published July 2012

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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