



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

Citrus Germplasm

maidencane

Panicum hemitomon Schult.



Figure 1. Production field of Citrus Germplasm maidencane growing at the Brooksville Plant Materials Center

Citrus Germplasm is a selection of maidencane (*Panicum hemitomon*) that was released in 1998 by the USDA, Natural Resources Conservation Service (NRCS), Brooksville Plant Materials Center in Florida.

Description

Maidencane also known as paille fine, is a native, warm-season, perennial, semi-erect grass, with stems that range from true vertical to diverging by 30 to 35 degrees. It is an aquatic to semi-aquatic grass that spreads from the shoreline both into and away from the fresh water and can form dense stands. Stems often produce roots at the lower nodes. Citrus Germplasm maidencane grows 36-40 inches tall and spreads by creeping rhizomes. Leaf blades are characteristically lush green, 8-12 inches long, and ½ inch wide. Growth generally begins in June and continues to mid-autumn. The shoots die back after frost and will turn a distinctive gray color.

Maidencane rhizomes produce both sterile and fertile shoots.

Sterile stems, which produce no seed heads, have hairs at the base of the leaf sheath; fertile stems are hairless. The inflorescence is a compact, elongated panicle, 6- to 8-inches long. Seed production is generally poor but seeds will form more abundantly in wet years that follow a period of drought.

Source

Plants were collected by NRCS employees in 1970 on Stage Pond Road off County Road 480 in Citrus County, Florida. This collection location is in Major Land Resource Area 154. These plants were evaluated under the plant introduction (PI) number 421993 prior to being released as Citrus Germplasm maidencane.

Conservation Uses

Citrus Germplasm is recommended for planting along ponds, stream banks, shorelines, and channels to help control erosion. Its extensive network of roots and rhizomes, moderate height, and fast rate of spread make it one of the best native plants for stabilizing soil. It has been used successfully to revegetate mine spoils and it has excellent potential for use in constructed wetlands for wastewater treatment.

Maidencane produces high-quality forage, that is especially high in crude protein. Citrus Germplasm can be planted in moist areas of improved pastures and rangelands. Plants can be grazed or cut for hay and annual forage production potential is 4-5 tons per acre. Maidencane also provides food, cover and nesting materials for wildlife.

Area of Adaptation and Use

Citrus Germplasm maidencane prefers wet or moist areas, although it will tolerate periods of drought. It is recommended for use throughout the state of Florida. It is better adapted to central and south Florida growing conditions than 'Halifax' maidencane that was released by the Jamie L. Whitten Plant Materials Center in Coffeeville, Mississippi. Maidencane is intolerant of saline, brackish, or marine environments. Citrus Germplasm maidencane will grow in a wide variety of soils ranging from mineral clays to floating organic soils. It can grow in standing water but prefers sites where the water level fluctuates from two inches above the soil surface to four inches below the soil surface.

Establishment and Management for Conservation Plantings

Citrus Germplasm maidencane is best established from rhizomes planted in the spring (April to June). Rhizomes should be placed in shallow furrows no more than two inches deep with rows spaced one foot apart. A planting rate of 25-30 bushels of rhizome pieces per acre is recommended.

During the mid-summer rainy season, Citrus Germplasm can also be established using freshly cut leaf and stem material. Planting using this method should only be attempted when rainfall can be expected daily or almost daily. The planting site should have moderately well-drained to poorly drained soils and the planting bed should be well prepared and free of other plants and residue. One to one and a half tons of shoot material should be used per acre. It should be spread over the soil surface and embedded by disking and rolling or using a roller chopper. About a quarter to a third of the stem should be left exposed following incorporation.



Figure 2. Rhizomes of Citrus Germplasm maidencane

Periodic burning can increase productivity and prevent encroachment of woody species. Stands will decrease as the canopy cover of woody plants increases. Do not burn during periods of drought because rhizomes can be damaged or killed.

Ecological Considerations

Citrus Germplasm maidencane is a native species that is unlikely to invade natural areas that are not near where it is planted due to its low seed production. However, the dense stands that it forms can exclude growth of other native plant species. Citrus Germplasm has shown little susceptibility to damage by disease or insects.

Seed and Plant Production

Although classified as an obligate wetland plant, production fields of Citrus Germplasm maidencane will typically be established on irrigated upland sites to facilitate harvesting of rhizomes. Planting production fields on sites without irrigation is not recommended. Site preparation and planting methods will be the same as for conservation plantings. Digging or harvesting of plant material should not occur until the end of the second growing season or until the plants are well established. Rhizomes can be dug by hand or mechanically using a bermudagrass sprig digger. Production stands that are dug on a regular basis should be fertilized with 100 pounds per acre of nitrogen per year. Amounts of phosphorus, potassium, and micro element fertilizer to be applied should be based on soil testing results.

Availability

For conservation use: Planting stock of Citrus Germplasm was distributed to Florida native plant nurseries and restoration specialty companies.

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 Citrus Germplasm maidencane (*Panicum hemitomom*). USDA-Natural Resources Conservation Service, Brooksville Plant Materials Center, Brooksville, Florida 34601. Published September 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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