

**Conservation Plants Released by The Natural Resources Conservation Service
Brooksville Plant Materials Center, Brooksville, Florida**

'NORTHPA' and 'SOUTHPA' Bitter Panicum

Panicum amarum Elliott var. *amarum*

'Northpa' and 'Southpa' (pronounced "northpay" and "southpay") are two cultivars of bitter panicum (*Panicum amarum* Elliott var. *amarum*) released by the USDA NRCS Brooksville Plant Materials Center in 1992. Both are vegetatively propagated and spread by rhizomes or buried stem sections that root at the nodes.



Figure 1: Natural bitter panicum stand on Florida coastline.

Description

Northpa and Southpa bitter panicum (*Panicum amarum*) are native warm season coarse perennial grasses, with hairless glaucous culms (stems) that arise in clumps or solitary from stout, creeping rhizomes. Erect culms are 10 to 70 inches or more tall. Northpa has a sub-erect to slightly decumbent growth habit when compared to Southpa. Both selections have flat thick leaf blades that are 4 to 20 inches long, 0.2 to 0.5 inches wide with smooth margins. Small quantities of poor-quality seed are produced on compact panicles.

Source

The original collection material of Northpa and Southpa was vegetative. Northpa was collected in Dare County, North Carolina, and Southpa was collected in Palm Beach County, Florida.

Conservation Uses

Bitter panicum tolerates salt and is an excellent choice for use in combination with crosswalks and snow fence for beach/dune projects. Plants trap sand and are stimulated either mechanically or nutritionally by the accumulation of fresh sand blown inland from the shore. Its aerial stems, when covered, will take root, and strengthen the existing plant and give rise to new ones at a pace that matches the sand accumulation. The primary conservation use of either cultivar is sand dune and beach stabilization and wildlife cover for shore birds.

Area of Adaptation and Use

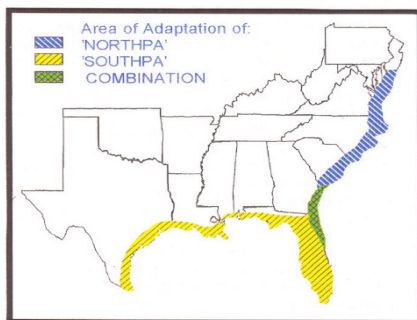


Figure 2: Area of adaptation of Northpa and Southpa bitter panicum along the East Coast and Gulf of Mexico.

These cultivars differ primarily in their range of adaptation with Northpa adapted on the east coast of the United States from St. Augustine, Florida, northward into New Jersey. Southpa is adapted from coastal Georgia southward to Florida and westward along the Gulf Coast to South Texas (Fig. 2).

Establishment and Management for Conservation Plantings

Freshly dug rooted tillers or potted or bare-rooted stem divisions is the most common material used in conservation plantings. If rooted stem division are used, they should be started in the fall at least 6 months before the anticipated planting date. Fertigation or slow-release fertilizer will increase plant size and improve transplant survival. This type of planting material can be planted in the late winter or early spring or at the beginning of the rainy season. Transplant material in staggered rows, 2-3 feet apart with plants 2 feet apart in each row. Closer spacings

will produce quicker cover. Plants should be planted 8-10 inches or deeper into moist soil as long as 2 to 3 inches of leaf remains above soil surface. Include one ounce of slow-release fertilizer in each planting hole or place fertilizer in a hole adjacent to the planting hole. Irrigation and or/mulch accelerates establishment of transplants. Restrict foot and other traffic from the planted area during the establishment year.

Freshly dug bare root tillers, rooted stem cuttings, or unrooted stem cutting may be used as planting material for production fields. Optimal time to plant unrooted stem cuttings is late fall prior to frost, but late enough that stem nodes are hard. The best time to plant young, bare-rooted tillers, when irrigation is not an option, is late spring or the beginning of the rainy season. Late winter or early spring is the best time to establish potted plants without irrigation. With irrigation, plants can be established anytime rooted planting material is available and freezing temperatures are not expected for at least 6 months. Unrooted stems cuttings can be buried end to end in trenches 4-6 inches deep and 2-3 feet apart leaving 6-10 inches of the stem top exposed. Additionally, unrooted stem cuttings can be planted three to a hole to a depth where at least ½ the stem is buried in staggered rows and 2-3 feet apart with holes 2 feet apart in each row. Transplant potted and bare root plants in staggered rows 2-3 feet apart with plants 2 feet apart in each row. Transplant these types of plants at a depth of 8-10 inches or deeper into moist soil, leaving 2-3 inches of leaf tissue above the soil surface. Production fields should be fertilized 3 to 4 weeks after planting based on soil test recommendations for low input warm season perennial grass. In lieu of a soil test, apply 200-300 pounds of 10-10-10 fertilizer. Applying fertilizer annually in early June and August encourages plant growth and fills gaps in the production field. Irrigation is beneficial until plants become well established. Restrict traffic of the production field during the establishment year.



Figure 3: To mass produce rooted stem cuttings, mature stems can be cut into single node sections and about half the length of the stem section inserted, node down into plug trays.

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Ecological Considerations

Northpa and Southpa are naturally occurring selections that have not been genetically manipulated, are exclusively vegetatively propagated and exhibited low disease or insect issues. Bitter panicum is native throughout the anticipated range of use for Northpa and Southpa. Although bitter panicum is known to occasionally produce viable seed, pollen contamination of regional ecotypes is not expected.

Seed and Plant Production

Estimated production is about five, 3-ft stems with 5 nodes per stem, or 25 cuttings per plant, which equates to approximately 90,000 to 120,000 rooted cuttings/acre annually depending on the row spacing and a 75% rooting rate.

Availability

For conservation use: Available from wetland restoration nurseries.

For seed or plant increase: Foundation rootstock is available from the USDA, NRCS Brooksville Plant Materials Center.

For More Information

USDA NRCS Brooksville Plant Materials Center, 14119 Broad Street, Brooksville, FL 34610
Phone: 352-796-9600 (www.plant-materials.nrcs.usda.gov/flpmc).



Citation

Release Brochure for 'Northpa' and 'Southpa' Bitter Panicum (*Panicum amarum* var. *amarum*). 2023. USDA-Natural Resources Conservation Service, Brooksville PMC, Brooksville, Florida.

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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