

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NOTICE OF RELEASE
PASPALUM VAGINATUM, SEASHORE PASPALUM
BRAZORIA GERmplasm

The USDA, Natural Resources Conservation Service (NRCS) announces the release and naming of a selected ecotype of *Paspalum vaginatum* (seashore paspalum).

The Brazoria Germplasm is assigned the NRCS accession number 9067665 and was selected to provide superior plant materials for use in coastal wetland restoration, specifically in areas of brackish shorelines, dunes, canal banks, mudflats, dredge materials, and other areas of ephemeral soil deposition.

NOMENCLATURE

Scientific Name — *Paspalum vaginatum* Swartz, Prodr. Veg. Ind. Occ. 21. 1788.

Common Name — seashore paspalum is the most widely accepted vernacular name; however, literature references also cite siltgrass, knotgrass, salt jointgrass, sheathed paspalum and seaside millet as other common names.

Germplasm — Brazoria is the selected germplasm name that will be used for the 9067665 release. There are three additional known cultivar, Adalayd (also known as Excaliber) released from California and Futurf released from Florida, are turfgrass cultivars used on saline soils. The third is Tropic Shores, released in 1991 from Hawaii as a bank-stabilizing plant and used by the saltwater aquaculture industry.

DESCRIPTION

Brazoria is a perennial, semi-aquatic, rapid-growing decumbent grass. Culms are erect 1.0 -7.9 dm tall from an extensive system of long slender rhizomes. Above-ground stolons are .75 m to 1.5 m long and root freely at the node to form a dense sod-like turf. Flowering culms are 8.0 to 60 cm tall; nodes and internodes are solid and glabrous. Sheaths are large, conspicuous, straw-colored, loose, generally overlapping, and more or less hairy at the mouth or glabrous. Leaf blades are slender, tapering to an acute point, 2.5 to 15 cm long, 3.0 to 8.0 mm wide at the base, inrolled or folded on drying, and slant upward or spreading at right angles; leaf color is bluegreen with a bloom on the surface and green beneath, margins are smooth. Racemes are spike-like, terminal, ascending to erect, 2.0 to 7.0 cm long, broad with triangular rachis. Generally there are 2 racemes, sometimes 3, rarely 1 or 4. Spikelets are 2 ranked, 3.0 to 4.5 mm long, less than half as wide, elliptic-lanceolate, and acute; first glume is generally absent, rarely present. The second glume and sterile lemma are 3-nerved, the fertile floret is white and comose, caryopsis is yellow and to 3 mm long. Chromosome numbers reported, $2n=20$ and 40.

Seashore paspalum is found in the tropical and subtropical regions of North and South America. It is native to the Australian seacoast, southern Spain, Argentina, and Chile. In the United States, seashore paspalum is found in the coastal plains from Texas to Florida and from North Carolina southward.

ORIGIN AND SITE DESCRIPTION

The Brazoria ecotype was selected from an original collection made in 1990. The parent material was a vegetative sample taken from a brackish marsh approximately five miles north of the intersection of the San Bernard River and the Intracoastal Waterway. This marsh is located between Hwy. 2918 and the San Bernard National Wildlife Refuge in Brazoria County, Texas.

Soil from the collection site is mapped Surfside Clay, and described as being a nearly level saline soils with an average slope of 0.2%. The surface layer is mildly alkaline, saline, dark gray clay to about 14 inches. Surfside Clays are poorly drained and have very slow surface runoff. The native vegetation would be characterized as a salty prairie, composed of about 95% grass species and 5% forbs. The plant community is typically 80% *Spartina spartinae* (gulf cordgrass).

METHOD OF SELECTION

Brazoria seashore paspalum is a pre-varietal release, selected from twenty-seven ecotypes collected from Louisiana, Texas, Florida, and Hawaii in 1990. Vegetative materials were maintained and tested between 1991 and 1995 both under control experimental design and as outfield plots.

The Brazoria selection demonstrated superior transplant survival, rate of growth, plot density, and persistence.

USE AND ADAPTATION

Brazoria seashore paspalum is an effective pioneering species that can be established on shorelines, dunes, canal banks, mudflats, dredge materials, and other bare and ephemeral soil deposits. Brazoria spreads rapidly and can form dense stands within two growing seasons from planting. It can be successfully established on fresh to brackish soils in areas up to approximately 10 ppt of salts. Brazoria is adapted to low-elevations at or slightly above normal water levels. Preferred sites are bare, saturated-to-moist soils, with little-or-no other vegetative competition. Brazoria will grow out into water. Culms and stolons will float or persist slightly submerged. However, Brazoria is not considered an emergent aquatic and will not persist under prolonged flooded conditions.

Seashore paspalum grows well at pH values ranging from 6 to 8 and responds well to fertilization. Seashore paspalum needs abundant moisture and establishes easily on a range of soil textures from heavy clays to sand-silt mixes. It likes full sun and does not compete well with trees or thrive under shady conditions.

Seashore paspalums are used by grazing animals. Cattle, geese, rabbits, and nutria readily take the vegetative parts; waterfowl and other avian species utilize the seed.

Seashore paspalum is considered an excellent wildlife food and habitat and is commonly used for ranging livestock on brackish to saline soils. Seashore paspalum is described as a useful though not a superior cattle fodder.

RELEASE JUSTIFICATION

Brazoria has application as a vegetative component in Louisiana's coastal restoration program and represents a superior ecotype of seashore paspalum. Seashore paspalum is a Louisiana native grass species. Seashore paspalum is salt tolerant and is considered a pioneering species that can provide early vegetative protection to loose, unconsolidated, and generally ephemeral soils. Seashore paspalum has the capability of rapidly colonizing and protecting large areas of bare soils, specifically in areas of accreting mud flats, dredge/fill cells, and other artificially created marsh sites. Seashore paspalum is easily propagated from container stock and from fresh sprigs. Because it is a native species and has been used extensively in Louisiana field trials, demonstrations, and in small scale restoration projects, Brazoria seashore paspalum will adapt easily into Louisiana's existing commercial wetland plant industry.

AVAILABILITY OF PLANT MATERIAL

Brazoria seashore paspalum must be established vegetatively; seeds are not available. Mature stolons with or without roots, can be established as sprigged material. Rooted container stock of any size provides the highest probability of survival. Both fresh sprigs and container material will be available through coastal wetland plant growers in Louisiana.

Foundation material for commercial nursery production is available from the USDA, Natural Resources Conservation Service, Golden Meadow Plant Materials Center. The Golden Meadow Plant Materials Center is located at 438 Airport Road, Galliano, Louisiana. The Center can be reached by phone at 504-475-5280 or by FAX at 504-475-6545.

References

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