

Brazoria Germplasm seashore paspalum *Paspalum vaginatum* Sw.



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Brazoria Germplasm seashore paspalum (*Paspalum vaginatum* Sw.) is a selected class release from the USDA, Natural Resources Conservation Service (NRCS) in 1999.

Description

Brazoria Germplasm is a perennial, semi-aquatic, rapid-growing decumbent grass. Culms are erect 1.0 -7.9 cm 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, in rolled 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. Spikelet's 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 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.

Source

Brazoria germplasm seashore paspalum was selected from twenty-seven ecotypes collected from Louisiana, Texas, Florida, and Hawaii in 1990. Vegetative materials were evaluated from 1991 to 1995, using a randomized experimental plot design and conducting field plantings. Brazoria Germplasm demonstrated superior transplant survival, rate of growth, plot density and persistence.

Conservation Uses

Forage:

Seashore paspalum is used as forage in some areas. It resists over grazing due to its low growth habit, but as with most forage grasses, proper management is essential to maintain vigorous, healthy stands. It is recommended that no more than 50% of the annual biomass be removed by livestock grazing or cutting for hay. It is typically grazed in the summer and early fall, and has moderate palatability.

Wildlife:

Due to its low growth form, turf formation, and low palatability among browse animals, Brazoria Germplasm seashore paspalum is not a highly significant wildlife plant. Geese and other herbivores will graze tender shoots, and it provides some cover for small vertebrates and invertebrates.

Landscaping:

Seashore paspalum forms dense sod if mowed to a 1" height and makes an attractive turf grass. It will tolerate traffic, and has been successfully used on golf course fairways. Some botanical varieties have a two toned appearance to their leaf surfaces which create an attractive striped effect when mowed. Because of its salt tolerance, seashore paspalum can be used successfully in areas with saline soils or groundwater.

Conservation:

Brazoria Germplasm makes an excellent shoreline protector. It spreads rapidly, forming dense stands that anchor soil particles and dissipate wave energy. It is easy to establish, and can withstand moderately high salinity and brief inundation. It can also uptake heavy metals, and is a candidate as a buffer or filter strip plant for phytoremediation of such substances.

Area of Adaptation and Use

Brazoria Germplasm favors medium to fine textured soils with a pH between 6 and 8. It will not tolerate shade, drought, or freezing. It prefers moist to saturated sites and can withstand brief inundations. Prolonged flooding is detrimental. It is salt tolerant, with some varieties able to tolerate irrigation from sea water.

Seashore paspalum is distributed across the southeastern seaboard from Texas to North Carolina. It is commonly associated with brackish and freshwater wetlands along the Gulf and Atlantic coasts.

Establishment and Management for Conservation Plantings

Brazoria Germplasm produces seed, but they are rarely viable. It is established vegetatively using sod, containerized material, stolons, and rhizomes. Planting material may be harvested and planted in the same manner as bermudagrass. Rhizomes and sprigs root grow easily within 7-14 days. When using sprigs, use at least two nodes per sprig to ensure establishment, and keep moist until a strong root system develops.

The best time to transplant container grown plants is late winter through spring, though they can be transplanted any time during the year. Plugs should be dug and transplanted late winter to early spring. Planting density is dependent on the critical erosion potential and coverage desired.

Seashore paspalum is a pioneer plant in coastal restoration and conservation programs. Brazoria Germplasm spreads rapidly and can be established on fresh to brackish soils with salinity to 10 parts per thousand (ppt). It is adapted to a range of soil textures from clay to sand. Preferred sites are bare, saturated-to-moist soils, with little or no other vegetation. Seashore paspalum is not considered an emergent aquatic and will not persist under prolonged flooding; however, Brazoria Germplasm has performed formed dense stands in study plots that were periodically flooded to depths of 1 foot.

Brazoria Germplasm responds well to nitrogen fertilization up to 8 lbs. /1000 ft² per year. However, nitrogen levels greater than 4 lbs. /1000 ft² per year promotes succulent growth, which encourages scalping when closely mowed as a turf grass. Nitrogen rates greater than 4 lbs./1000 ft² should only be used if cutting is done high, such as for hay production. Scalping promotes disease, creates plant stress, and lowers productivity. Excellent results are obtained with split applications of ½ - 1 lb. of nitrogen per 1000 ft² throughout the growing season. This is much lower than the fertility requirements for productive growth of bermudagrass. Seashore paspalum can out compete

bermudagrass under low fertility conditions. Consult your local extension weed specialist for approved herbicides, method of application, rates and dates.

Ecological Considerations

None, though seashore paspalum is sometimes an invader on golf courses in some areas of the world.

Seed and Plant Production

Brazoria Germplasm seashore paspalum must be established vegetatively; seed is 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.

Availability

For conservation use: Stolons, rhizomes and containerized material are available through commercial wetland plant growers.

For seed or plant increase: Generation 0 planting stock is available for commercial nursery production from the USDA, Natural Resources Conservation Service, Golden Meadow Plant Materials Center.

For more information, contact:

Golden Meadow Plant Materials Center

438 Airport Rd., Galliano, LA

Phone: 985-475-5280

Fax: 1-844-325-6941

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/plantmaterials/pmc/southeast/lapmc/>

Citation

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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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