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

'Tropic Shore' Seashore Paspalum

Paspalum vaginatum SW.

A Conservation Plant Release by USDA NRCS Hoolehua Plant Materials Center, Hoolehua, Hawaii

Forest and Kim Starr, August 2009.

'Tropic Shore' Seashore Paspalum (*Paspalum vaginatum* SW.) is a cultivar released in 1991 in cooperation with the University Of Hawaii, Hawaii Institute of Tropical Agriculture and Human Resources, Department of Agronomy and Soil Sciences.

Description

'Tropic Shore' Seashore Paspalum is a perennial, creeping grass that is stoloniferous and rhizomatous. It normally grows to a height of about 15 inches, but under conditions of high fertility it will reach a height of 20 inches. Its stems are abundant and prostrate. The stolons, or runners, root at the nodes to form a dense sod-like cover. Newly emerging leaves are folded in the leaf sheaths. The abundant, well-distributed, mature leaves have stiffly ascending blades that are rolled toward the tips. The leaf blades are slender, gradually tapering to an acute point, and approximately 3-8 inches long by 0.25 inch wide at the base. Inflorescences are sparse and develop within the foliage, below the tips of the ascending leaves. Inflorescences consist of two, one-sided, racemes 1.3 to 1.5 inches long, that are together at first and spreading as they mature. Spikelets are 0.1 to 0.14 inch long. The flowering culms are usually semi-erect and about 10 to 15 inches high.

Source

'Tropic Shore' Seashore Paspalum was collected along the ocean high-tide mark at Kailua, on the island of Oahu in Hawaii. *Paspalum vaginatum* (also known as saltgrass, siltgrass, and knotgrass) was first described as being native to the West Indies. The natural range of *Paspalum vaginatum* extends to both hemispheres, however, and it is found growing along the coastline from Australia to southern Spain and from Argentina and Chile to Baja California and North Carolina. Its distribution is pan-tropical and it is naturalized throughout the Pacific, where it is found growing in coastal marshes, mud flats and sand flats (National Academy of Sciences, 1975).

Conservation Uses

'Tropic Shore' is intended primarily for stabilizing shorelines and banks of aquaculture ponds, canals, and streams with brackish or salty water. Once established, this grass provides good protection from strong waves. It is less aggressive when growing out into the water as compared to other grass species, which is very important to aquaculture operations. It may be planted for pasture, lawns, and other uses where only salty or brackish water is available. It may also be used for erosion control where the water is non-saline.

Area of Adaptation and Use

'Tropic Shore' is adapted to low-elevation sites along the edges of canals, ponds, streams, and just below the high-tide mark of ocean beaches. *Paspalum vaginatum* is one of the most salt-tolerant grasses known and has been reported to grow with water containing total soluble salts of more than 10,000 ppm (National Academy of Sciences, 1975). In Hawaii, it has adapted to brackish coastline sites on soils ranging from sand to clay, and grows well at pH values ranging from 6.7 to 8. Under saline conditions, little or no fertilization is needed, on the other hand, it responds favorably to fertilizer when grown with fresh water.

Establishment and Management for Conservation Plantings

'Tropic Shore' Seashore Paspalum is established using vegetative material. Mature stolons, with or without roots, make good planting material for pond and stream banks. The best results are obtained by planting at or just below the normal water level. Planting is easily accomplished by pushing the stolons into the soil where it is soft and muddy. Stolons thrown onto very wet, boggy areas will generally grow, especially where they are covered with water. The drier the situation, the greater the care must be for a successful planting. Large dry-area

plantings can be established by providing irrigation and planting in tractor-made furrows.

'Tropic Shore' Seashore Paspalum is low growing and requires infrequent or no mowing. Very little maintenance is necessary once 'Tropic Shore' becomes established on stream or pond banks. Mowing or using approved herbicides along bank edges to control weedy plants during establishment will promote the formation of a solid uniform stand. In non-saline areas, 'Tropic Shore' responds to nitrogen fertilizer.

'Tropic Shore' Seashore Paspalum will respond to fertilizers only in fresh water conditions; i.e. in areas of fresh-water seepage, or when irrigated with fresh water. It usually does not respond well to fertilizers under saline conditions. When using brackish water to irrigate 'Tropic Shore' Seashore Paspalum, apply ample amounts to assure good leaching and to prevent excessive salt accumulation. Care must be taken when irrigating with excessive amounts of brackish water to avoid damage to relatively salt-sensitive plants that may be growing nearby.

Ecological Considerations
No significant problems have been reported.

Seed and Plant Production
'Tropic Shore' Seashore Paspalum produces very little viable seed making it non-profitable to harvest seed.

Availability
For conservation use: Currently, there are no commercial producers of 'Tropic Shore' Seashore Paspalum.

For plant increase: Foundation-quality plant material of 'Tropic Shore' Seashore Paspalum will be maintained by the USDA NRCS Hoolehua Plant Materials Center and is available to commercial producers and others for establishing their production fields.

For more information, contact:
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<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/plants/centers/>

Citation
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