Seashore Paspalum

Common seashore paspalum (*Paspalum vaginatum* Swartz.), indigenous to Georgia and South America, has become a popular turfgrass in Hawaii. Its stolons, rhizomes, and leaves are slightly coarser than common bermudagrass and finer textured than centipedegrass. The leaves are very soft to the touch and, when properly fertilized, are blue-green to dark green. Seashore paspalum has a two-pronged, V-shaped spike flower that produces few if any viable seeds in Hawaii. The stolons sometimes are purple.

Seashore paspalum has tremendous salt tolerance and adaptability, making it a good choice for coastal areas subjected to salt spray or periodic high-wave inundation and for soils having a shallow water table or receiving brackish irrigation water. It has been observed growing in soils with salt levels of 20 mmhos/cm and higher.

Turf-type seashore paspalum has a high shoot density, enabling it to withstand weed invasion, especially at mowing heights of 1 inch or less. Its shade tolerance (maximum 35% light reduction) and wear resistance are moderate, and it recovers rapidly from damage. Seashore paspalum appears slightly less drought tolerant than bermudagrass and zoysiagrass, but it is more drought tolerant than St. Augustinegrass and centipedegrass due to its fairly deep root system.

**Cultivars**

The turf-type seashore paspalum found in Hawaii is unnamed and most likely came from Sea Island, Georgia. No named turf-type cultivars are available in Hawaii. Seashore paspalum is widely used as a lawn turf in Australia. ‘Futurf’ (called ‘Excalibre’ in California) and ‘Adalayd’ were introduced to the U.S. mainland from Australia. The common turf-type seashore paspalum found in Hawaii is similar in texture to ‘Futurf’ and ‘Adalayd’. Propagation material for common seashore paspalum is available from several turf nurseries in the state.

A Hawaii selection, ‘Tropic Shore’, was collected along the shoreline of Kailua, Oahu, and cooperatively released by the Natural Resources Conservation Service and CTAHR’s Department of Agronomy and Soil Science as a conservation grass. It is coarse and not commonly used as a lawn or golf-course turf.

**Soil types**

Seashore paspalum does well in a wide range of soil types, including heavy and poorly drained soils. It has been observed growing well in Hawaii in sandy, calcareous soils with a pH of 8 and clayey, acidic soils with a pH of 5.

**Establishment**

Seashore paspalum is propagated by sprigs, stolons, plugs, or sod. Seed is not available. Stolons should be broadcast at 5–10 bushels per 1000 square feet (ft²) onto a well prepared seedbed. Starter fertilizer should be applied at the rate of 1 lb of nitrogen (N) per 1000 ft² of area, or as recommended from a soil analysis. After stolonizing, a ½-inch layer of mulch should be applied over the top to help retain moisture and hold the stolons in place. Alternatively, a very shallow tilling will also work. Both methods should be followed by rolling with a light roller to ensure good contact between soil and stolons.

Application of an approved preemergence herbicide may minimize weed seed germination. A properly fertilized and watered planting should cover the soil in 2½–3 months. Sprigs and plugs will take about the same time if planted at a maximum 12-inch spacing.

**Mowing**

Mow seashore paspalum with a reel mower at ½–1 inch for highest quality. If mown too high, the turf will scalp easily and develop a significant thatch problem. A rotary mower may be used, but thatch develops quicker because rotary mowers cannot cut at 1 inch or less. Seashore paspalum can be an aggressive grass under high fertilizer regimes. Mow once per week or often enough so as not to remove more than ⅓ of the leaf blade per mowing.

**Fertilizer**

Seashore paspalum responds well to fertilizer, but excessive growth and thatch occur with high rates of N, especially in the summer months. Apply ½ lb of N per 1000 ft².
per month as a complete fertilizer or as N alone, depending on soil test results. On coarse, sandy soils or highly maintained turfs, up to 1 lb of N per 1000 ft² per month may be necessary. Lower rates may be applied during the winter months (Nov.–Feb.), when growth is slowed. Seashore paspalum will respond to iron application when grown in alkaline soils.

Irrigation
The moisture requirement of seashore paspalum has not been thoroughly studied. The grass thrives in moist sites and tolerates wet conditions much better than bermudagrass. It has been observed growing into shallow water around the edges of ponds, making it a good choice for stabilizing banks of aquaculture ponds and other water features.

Light, frequent watering is necessary during establishment. As the lawn becomes established, less frequent but longer watering encourages deeper rooting. Brackish or recycled water can be used.

Irrigate established seashore paspalum to a soil depth of 4–6 inches at each watering. The duration and frequency of irrigation will vary with soil type. For example, sand requires a shorter period to wet to a 6-inch soil depth, but watering must be more frequent because sand does not hold moisture well. Avoid light, shallow watering, as this will promote shallow rooting.

Thatch control and aeration
Seashore paspalum can build thatch (decomposing and undecomposed stolons) and benefits from verticutting with a power rake. Verticutting, sometimes referred to as dethatching, should be done in the spring or summer and followed by application of a preemergence herbicide. Seashore paspalum may require verticutting twice a year (spring and fall) if heavily fertilized and irrigated and cut higher than 1 inch. Mechanically verticut the turf when the thatch layer is greater than ¼ inch. Verticuting can be done as an annual maintenance event.

In heavy soils, consider mechanical aeration using a core or spoon aerator when seashore paspalum receives significant traffic or intense use. Depending on these factors, aeration may be required once or twice annually.

Top-dressing following core or spoon aeriation will benefit soils with poor structure. Top-dressing following core aeration is optional in high-maintenance situations. Top-dress material should be a finely screened (¼–⅜ inch mesh), composted organic material. Top-dressing without core aeration will not benefit soil structure in the root zone.

Pests
Seashore paspalum is susceptible to occasional grass webworm, armyworm, and fiery skipper attack. Birds and other natural enemies are often able to keep these insects under control. If treatment is necessary, one application of an approved insecticide should be sufficient. Bacillus thuringiensis, a bacteria available under several trade names, can be used to control grass webworm and armyworm.

A fungus disease has been observed on seashore paspalum in Hawaii but is usually only a problem when the grass is under stress. Proper fertilization, watering, and cultural practice minimize the effects of this disease.

Seashore paspalum is sensitive to many herbicides commonly used on other turfgrasses in Hawaii. Few herbicides are currently registered for use on it. It is therefore important to keep the lawn free of weeds from the time of establishment. This can be accomplished by hand-pulling or by using a preemergence herbicide. Once the grass has completely covered the area, weed invasion is minimal if the lawn is maintained properly.

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Herbicides with labels allowing use on seashore paspalum.¹

<table>
<thead>
<tr>
<th>Weeds controlled</th>
<th>Herbicide type</th>
<th>Herbicide common name (examples of trade names in parentheses)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>crabgrass, goosegrass, and annual grasses</td>
<td>preemergence</td>
<td>prodiamine (Barricade) oxadiazon (Ronstar 2G)</td>
</tr>
<tr>
<td>many broadleaf weeds</td>
<td>postemergence</td>
<td>2,4-D amine + MCPA + dicamba (Trimec, Encore)²</td>
</tr>
<tr>
<td>many broadleaf weeds</td>
<td>postemergence</td>
<td>triclopyr + clopyralid (Confront)³</td>
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</tbody>
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¹Mention of a trademark or proprietary name does not constitute an endorsement, guarantee, or warranty by the University of Hawaii Cooperative Extension Service or its employees and does not imply recommendation to the exclusion of other suitable products. Caution: Pesticide use is governed by state and federal regulations. Read the pesticide label to ensure that the intended use is included on it, and follow all label directions.

²The herbicide labels allow use of these on “ornamental lawns and turf”; this language does not exclude seashore paspalum.

³According to the product label, “Users who wish to use Confront™ may determine the suitability for such uses by treating a small area at a recommended rate.”