

PASPALUM GRASS MAINTENANCE TIPS

Paspalum uses 66% less nitrogen than bermudagrass, and should be treated with 2-3 lbs./1000 sq. ft. of total nitrogen per growing season. Do not exceed 4 lbs. of nitrogen/1000 sq. ft. per growing season.

Paspalum does very well with slow release fertilizers. These are ideally applied during early spring and fall, but an application can also be made in summer as needed. Additional products that can provide a quick green up are foliar applications of seaweed extracts. Seaweed extracts can be found in products such as Panasea plus, Promax, and Kelplex. These are available online or at most nurseries. The fertilizer and water requirements have made it a very popular grass since it uses 2/3rd's the nitrogen of bermudagrass. The watering schedule is slightly different than a bermudagrass in that it can tolerate heat stress better on a 2-3-day watering schedule. (10 minutes per every day not watered). Slow release fertilizers may be used to help keep water bills down by limiting growth.

WATERING

For established paspalum watering deep and infrequent is best. Water every 2-3 days during the growing season and apply an inch of water per week. The general rule of thumb is to apply 10 minutes of water for everyday your lawn is not watered. For extreme slopes or areas where water cannot penetrate the soil, it's best to apply in a cycle soak pattern so water can infiltrate the soil without runoff. Paspalum should be watered early in the morning to eliminate any environmental competition.

MOWING

Paspalum has a wide range of mowing heights depending on its use. Paspalum can be maintained as a putting green or as long as 2 inches for a backyard. Decide on a desired length for the turf. Continue to mow maintaining this height so that no more than 1/3 the height is being mowed off at one time. Grass should be mowed 1-2 times per week to maintain desired height.

HERBICIDES

Pre-emergent herbicides can be applied in February and post-emergent grasses can be applied during the growing season. Rock salt and water solution has been known to treat select broadleaves.

OVERSEEDING PASPALUM

During the cooler months of the year paspalum can be overseeded to maintain winter color. When nighttime temperatures are in the low 60's it is ideal to begin the overseed process. Raise the height by 1/2 "inch prior to scalping for the fall. Maintain lawn at this height for two weeks prior to scalping. Next scalp the lawn down a little lower than the normal mowing height to 1/2" to 3/4". A light verticut can be performed at this time to open up the turf canopy followed by mowing to clean up any additional debris left on the turf. Apply a starter fertilizer to the mowed down turf such as 6-20-20, 16-20-0, 11-52-0, or 18-24-12. Seed lawn with perennial ryegrass at a rate of 10-12 lbs./1000 sq. ft. Use a high-end seed blend that will provide a deep green color throughout the winter months. Apply water 3-4 times throughout the day for 5-7-minute cycles to keep the seedbed moist during germination and grow in of the ryegrass. After the seed has been down 10 days apply a second fertilizer to stimulate the ryegrass growth such as 15-15-15. Apply one last fertilizer application after the turf has been mowed, and is growing well just before the first frost. The best time for this application is early November and some good fertilizers to use are 15-15-15, 21-7-14, or 15.5-0-0 (calcium nitrate). These fertilizers applications are very important as ryegrass does start to get a yellow tint after a heavy frost, but with proper timing this will not be an issue. During the cooler months of the year apply foliar fertilizers as needed to maintain color.

SPRING TRANSITION

Paspalum will begin to grow when the soil temperature reaches 64 degrees for three consecutive days. At this time begin to gradually lower the height of the ryegrass and stop any fertilization. Paspalum will emerge and take over the ryegrass as temperatures become favorable for growing. Once the paspalum begins to emerge you can switch to a slow release

fertilizer to reduce excessive top growth. A good seasonal starter fertilizer is 11-52-0, 6-20-20, 18-24-12, or Soil Burst 4-4-2.

AERIFICATION AND/OR VERTICUTTING

(COMPACTION IS THE NUMBER ONE PROBLEM FOR HEAVY USE FIELDS/LAWNS)

For a warm season turf like seashore paspalum you can aerify and verticut during the growing season.

The amount of aerification and verticutting depends upon your individual turf and how much traffic it's receiving.

Light verticutting is best on paspalum during growing season (April-September)

SECTION 32 92 00 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Sodding.
- B. Related Sections:
 - 1. Section 32 91 13 "Soil Preparation."
 - 2. Section 32 93 00 "Plants."

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- D. Planting Soil: See Section 32 91 13 "Soil Preparation."
- E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For landscape Installer.

- B. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 - 2. Pesticide Applicator: State licensed, commercial.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Sod: Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.

1.8 FIELD CONDITIONS

- A. Planting Restrictions: Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 TURFGRASS SOD

- A. Turfgrass Sod: Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.
- B. Species: See species designations in the plans.

2.2 FERTILIZERS

- A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

2.3 PESTICIDES

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect grade stakes set by others until directed to remove them.

3.3 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 32 91 13 "Soil Preparation."
- B. Placing Planting Soil: Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

- D. Before planting, restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 SODDING

- A. Lay sod within 24 hours of harvesting unless a suitable preservation method is used. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to soil or sod during installation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
 - 1. Lay sod across slopes exceeding 1:3.
 - 2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below sod.

3.5 TURF MAINTENANCE

- A. **General:** Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
 - 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
 - 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
 - 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. **Watering:** Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches (100 mm).
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water turf with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. **Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:**

1. Mow Bahia to a height of 2 to 3 inches.
2. Mow Seashore Paspalum to a height of 1 to 2 inches.

D. Turf Postfertilization: Comply with applicable fertilizer ordinances. Apply slow-release fertilizer after initial mowing and when grass is dry.

1. Use fertilizer that provides actual nitrogen of at least 1/2 lb/1000 sq. ft. (0.23 kg/92.9 sq. m) to turf area.

3.6 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Landscape Architect:

1. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.

B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

3.7 PESTICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.8 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

3.9 MAINTENANCE SERVICE

A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:

1. Sodded Turf: 90 days from date of Substantial Completion.

SEASHORE PASPALUM

Paspalum vaginatum Sw.
Plant Symbol = PAVA

Contributed by: USDA NRCS National Plant Data Center



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Alternate Names
None

Uses
Seashore paspalum is used as a forage food for cattle and horses. It is grazed from March to November and the green stolons are eaten during the winter months. It is also used by wild geese for feed.

Paspalum vaginatum is used in commercial and residential landscaping. This plant has been very successful for golf courses all around the world, especially in the coastal states and in other areas near brackish or high saline waters. It is considerably more salt tolerant than other standard golf course turf so it can be irrigated with salt water, which saves an enormous amount of money used in the

desalinization of the water used for irrigation. Because seashore paspalum grows low to the ground,

it has a high tolerance for traffic and wear. It grows rapidly which provides a thick turf and competes against weeds when maintained properly.

Paspalum vaginatum has other important uses such as erosion control, wetland restorations, and site reclamation on oil and gas well sites.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description

General: Grass Family (Poaceae). Seashore paspalum is a native, warm season, creeping perennial. Culms are erect, smooth at the nodes and range in heights of 1-7.9 dm. Sheaths are glabrous, overlapping and scantily pubescent apically. Blades range in lengths of 2.5-15 cm and in widths of 3-8 mm, which may be flat or folded inward length wise. Blades are mostly glabrous having a sparse amount of long hairs located on the top surface close to the base. Ligules are 1-2 mm in length. Racemes are usually in numbers of 2-3 and range in lengths of 1.1-7.9 cm. They are erect and spreading at maturity. Axes are winged, smooth, 1-2 mm wide and have scabrous margins. Spikelets are solitary, glabrous, elliptic to ovate-lanceolate, faint-stramineous in color, 3-4.5 mm long and 1.1-2 mm wide. First glume seldom developed, usually absent. The second glume and sterile lemma are 3-nerved with the nerves suppressed. The fertile floret is comose and white in color. The caryopsis is yellow and is approximately 3 mm long.

Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Adaptation

Seashore paspalum inhabits brackish sand areas and saline areas along the coasts that stretch from North Carolina down to Florida and over to Texas. It is found as far south as Argentina and in the warm regions of the Eastern Hemisphere. It is suited for compacted inorganic marsh soils of average salinity

and flourishes when water levels are fluctuated between 2 inches above the surface to 6 inches below the soil surface. However, it can withstand more than 2 inches of water above the soil surface during the winter season.

Establishment

It is propagated asexually using stolons and rhizomes. Since seeds are seldom available, seashore paspalum is available in sprigs, plugs and sod.

For optimum results, plant 3 bushels of sprigs per 1000 square feet during late spring or summer. It prefers a pH above 6.0 and should be mowed after the first 60-90 days after planting.

Management

In managing Seashore paspalum for forage, it is recommended that less than 50% of the present year's production by weight be grazed. In addition, a 90-day suspension of grazing is implemented to improve the strength of the crop and to obtain a forage reserve. Overgrazing is usually not a problem because this forage grows flat on the ground.

In managing Seashore paspalum for landscape or golf courses, a low level of Nitrogen, about 3 to 4 pounds per 1000 square feet per year, is recommended. Fertilizer should be applied during the fall to prevent scalping. Studies have proven that it produces higher shoot densities when mowed at lower heights. This in turn provides a better playing surface and an attractive appearance.

Seashore paspalum is considered invasive to the Hapuna Golf Course in Hawaii where they are using Bermuda grasses. Seashore paspalum is out-competing their established Bermuda turf. They will be conducting a three-year study on how to get seashore paspalum off their course.

Seashore paspalum is vulnerable to insects, such as armyworms and webworms eating and damaging the foliage.

Cultivars, Improved and Selected Materials (and area of origin)

Although seeds are produced several times during the year, they are rarely viable. SALAM and ADALYD (also known as EXCALIBRE) are varieties of seashore paspalum, which are used on golf courses located around the world. SALAM is glossy on the bottom side of the leaf, which allows the courses to be mowed and have a striped appearance.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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