



‘Sunturf’ Bermudagrass

‘Sunturf’ bermudagrass (*Cynodon magennisii*) is a naturally occurring hybrid of *Cynodon dactylon* and *C. transvaalensis*. It originated in southern Africa, was introduced into the United States in 1949, and was cooperatively released by agricultural experiment stations in Alabama, Arkansas, Oklahoma, and South Carolina in 1956.

This species was one of the first “improved” bermudagrass types for home and commercial lawns. It produces a dark-green, fine-textured, low-growing, dense turf that makes and an exceptionally attractive lawn. It is widely used for lawns in the southwestern United States.

‘Sunturf’ was introduced into Hawaii in 1962 by Narahara Brothers Nursery. It is available from various turf nurseries and retail outlets. Although ‘Sunturf’ has become popular for home lawns, it has not gained the commercial popularity or notoriety of some other bermudagrass selections.

‘Sunturf’ was found to be well adapted when grown at the CTAHR Waimanalo Research Station. Seed-head production is minimal with good fertilizer and irrigation practices. The turf recovers rapidly from mower injury. Although its establishment from plugs or stolons is somewhat slower than the Tifton bermudagrasses, it is still fairly rapid. No disease incidence was noted during three years of testing.

‘Sunturf’ is now one of the older bermudagrass selections, but it remains one of the best choices for lawns in Hawaii. It is an especially attractive grass for high-quality turf areas, home lawns, golf tees, golf putting greens, and bowling greens. It should be planted in full sun, because like all bermudagrasses it does not tolerate shade. It prefers slightly acid soil (pH 6.0–6.5) although it tolerates alkaline sites and a wide range of Hawaii’s soil conditions. It is highly tolerant of salinity and exposure to salt spray, making it suitable for locations near

the beach. It is best suited to middle and low elevations in Hawaii, because it becomes dormant at the low temperatures found at higher elevations.

Establishment

‘Sunturf’ does not produce seed and must be propagated vegetatively. Use 5–10 bushels of stolons per 1000 square feet (ft²), or sprig on 12-inch centers. Plugs can be used on 6-inch or 12-inch centers. Complete coverage will be obtained in about 60 days. Closer planting speeds establishment. Fertilize with 1 lb of nitrogen per month during establishment, and irrigate to maintain moist but not wet conditions.

Mowing

Mowing at a height of ½ to ¾ inch with a reel mower produces a dense, high-quality turf. ‘Sunturf’ can be mown with a rotary mower at 1½ to 2 inches to produce a good residential or park turf. Mow often enough so that no more than ⅓ of the total leaf surface is removed at one time. Mowing frequency, therefore, will depend upon how rapidly the grass is growing.

Fertilizer

Before planting, apply phosphorus, potassium, and lime according to soil test recommendations. Also apply 2 lb of nitrogen per 1000 ft². If a soil analysis has not been done, a generalized recommendation is to use 20 lb of 10-20-10 or similar analysis fertilizer per 1000 ft² of planting area. Mix the fertilizers thoroughly with the soil in the planting bed to a depth of 6 inches. Incorporating organic matter, such as compost, improves the water-holding capacity of rapidly draining soils (coarse or sandy soils) and may improve the condition of poorly drained soils (heavy, clayey soils). Apply 1–2 inches of compost and till it into the surface 6 inches of soil before planting.

To maintain established turf, use 6–12 lb of nitrogen (N), 6 lb of phosphorus as phosphate (P_2O_5), and 9 lb of potassium potash (K_2O) per 1000 ft² per year. Phosphorus and potassium can be applied in three or four equal applications during the year. Nitrogen should be applied once a month at $\frac{1}{2}$ –1 lb per 1000 ft² if soluble nitrogen sources are being used. Controlled-release fertilizer can be applied at higher rates and less frequently, but do not apply more than 2 lb of N in a single application.

Watering

Frequency of watering will be influenced by the soil and amount of rainfall in a particular location. During establishment, keep the soil surface moist but not puddled. After establishment, water deeply enough so that the top 6–8 inches of soil is wet. One watering per week should be sufficient (two in dry locations or in excessively drained soils).

Vertical mowing

'Sunturf', like most vigorous turfgrasses, produces a thatch after a few years. This thatch can weaken the turf and reduce its quality and appearance if not periodically removed. Thatch build-up is most likely in intensely managed sites. Check the depth of thatch by cutting a plug of grass. If the thatch is $\frac{3}{4}$ inch or more in depth, it should be removed. Removal is accomplished by vertical mowing, "verti-cutting," or de-thatching with a power rake to thin the grass and remove the thatch. Vertical mowers can be rented at some equipment rental agencies.

Insects and Diseases

'Sunturf', like all bermudagrasses, is susceptible to grass webworm and lawn armyworm. These can be controlled by application of appropriate insecticides. Consult the pesticide label for directions on use. No diseases were observed during evaluations at the University of Hawaii.

*Revised by David Hensley from a 1973 publication by Charles Murdoch and Fred Rauch
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