
TURFGRASS MANAGEMENT

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Zoysiagrass Lawns

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Zoysiagrasses (*Zoysia* spp.) are perhaps the most beautiful lawngrasses. They are well adapted to the tropical climate. An established, well-managed zoysia lawn is beautiful, but zoysiagrasses require a high level of maintenance and are not as trouble-free as often advertised.

Zoysiagrasses grow well in a wide variety of soils, have good tolerance to shade and salt spray, have good to excellent wear resistance, and provide an extremely dense sod, which reduces weed invasion. Once established, the slow growth of zoysia is an advantage because mowing is needed infrequently. The density of a zoysia lawn is second to none and the uniformity is excellent.

When properly maintained, zoysiagrasses make excellent lawns. Zoysias also have disadvantages. They improved zoysias have to be propagated vegetatively and are extremely slow to establish. At least one year is usually required for coverage of the lawn when propagated by plugging or sprigging. All zoysias form a heavy thatch, which requires periodic renovation. Other disadvantages include slow recovery from damage, poor growth on compacted soils, high fertility requirement, need for frequent irrigation, possible severe damage by nematodes, hunting billbugs, and several diseases.

There are several species and varieties of zoysiagrasses, which are suitable for Guam however planting material is not easy to acquire.

ESTABLISHMENT

With one exception, zoysiagrasses must be planted vegetatively using sod, plugs, or sprigs. *Zoysia japonica* is the only species for which seeds are commercially available. Success with any propa-

gation method is highly dependent on proper soil preparation. All construction debris, large brush, and other undesired vegetation should be removed prior to grading the lawn site. If necessary, lower tree limbs should be removed to allow better sunlight penetration and make soil preparation and mowing easier. For drainage purposes, slope the lawn away from the house. Refer to the section entitled "Lawn Establishment" in the document "Lawns on Guam" for more detailed establishment procedures.

Sodding Planting of zoysiagrasses by sod is a common establishment method and produces an "instant lawn." For best results, good quality, weed-free sod should be used. At the moment sod is not commercially available to homeowners on Guam.

Plugging Plugging is the planting of small square or circular pieces of sod that spread over the lawn. The plugs are cut from sod and placed into holes of the same size. Because of slow growth, zoysiagrass plugs are usually planted 6 inches apart. This means that plugs are planted every 6 inches in a row and rows are spaced 6 inches from each other. Even with 6-inch spacing, at least one year will be required for complete coverage. Plugs should be tamped firmly into the soil. The soil should be kept moist until the grass is well rooted.

Sprigging Planting zoysiagrasses by sprigs is a laborious but good method to use to establish a lawn. Fresh, vigorous sprigs (runners) having at least two or four nodes (joints) should be planted in rows, which are 6 inches apart. Plant the sprigs end-to-end or not more than 6 inches apart in the row, and cover them with soil, leaving a portion of each sprig

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exposed to light. A roller can be used to press sprigs into the soil. Soil must be kept moist until the plants initiate new growth and the lawn is completely covered.

FERTILIZING

To look their best, zoysiagrasses require frequent fertilization. For minimum maintenance, fertilizer can be applied every 4-6 months. To produce a high-quality, deep green zoysia lawn, apply fertilizer every 2-3 months according to label recommendations.

MOWING

If fertilized every 2-3 months, zoysiagrasses will require frequent (weekly) mowing to look their best. *Zoysia japonica* (coarse leaves) should be mowed approximately every 2 weeks at a height of 2 to 3 inches using a rotary mower. Fine leaf zoysiagrasses look best when cut at 1 to 2 inches every 10 to 14 days using a reel mower.

WATERING

Zoysiagrasses require watering especially during prolonged droughts. Water should be applied when the lawn begins to show drought stress symptoms such as wilting and/or folding leaf blades. When using this approach, irrigate with 1 inch of water (465 gallons per 1000 square feet) at the first sign of wilting.

THATCH CONTROL

Zoysiagrasses typically develop a thick thatch layer several years after establishment. This thatch should be controlled or removed mechanically to maintain a uniform grass appearance. Refer to the brochure "Thatch and its Control in Guam's Lawns" for complete information.

PEST PROBLEMS

The most serious insect is the hunting billbug. Billbugs damage grass by feeding and destroying its root system, thereby resulting in a lawn with irregular brown patches. Billbugs may require periodic chemical control. Lawn caterpillars may also damage zoysias. Probably the most serious pests on zoysiagrasses are nematodes. These soil-borne, microscopic worms attack the grass roots, and if not controlled, can ultimately kill the entire lawn. Disease problems of zoysiagrasses include dollar spot, brown patch and rust. These are generally suppressed in properly fertilized and watered lawns.

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