

# Zoysiagrass

## Lawn Maintenance Calendar

The following management practices will help you care for your lawn throughout the year. Location, terrain, soil type and condition, age of the lawn, previous lawn care, and other factors affect turf performance, so adjust these management practices and dates to suit your particular lawn.

### March through May

**Mowing** Mow the lawn when it first turns green in the spring using a reel mower set at ½ inch or a rotary mower set as low as possible without scalping the lawn. Mow the grass before it grows taller than 1 ½ to 2 ½ inches. Leave nutrient-rich grass clippings on the lawn unless they are unsightly or in clumps.

**Fertilization** Apply nutrients based on soil testing. In absence of a soil test, apply ½ pound of nitrogen per 1,000 square feet 3 weeks after greenup. Use a complete nitrogen-phosphorus, potassium (N-P-K) turf fertilizer with a 3-1-2 or 4-1-2 ratio (for example, 12-4-8 or 16-4-8). Do not apply more than 2 pounds of nitrogen a year.

*You need to apply ½ pound of nitrogen per 1,000 square feet, but how much fertilizer do you need to buy? Divide 50 by the first number on the fertilizer bag. For example, if you've got a 5-5-15 fertilizer, you divide 50 by 5 and you get 10. That means you need to buy 10 pounds of fertilizer for every 1,000 square feet of lawn.*

**Watering** Zoysiagrass needs 1 to 1 ¼ inches of water a week. If you don't get enough rain, water your lawn. A dark bluish-gray appearance, footprinting, or wilted, folded, or curled leaves indicate that it is time to water. Irrigate the soil to a depth of 4 to 6 inches; this can be determined by probing the soil with a screwdriver or similar tool. On sandy soils, zoysiagrass may require ½ inch of water every third day. It is often necessary to water an area for 3 to 5 hours to apply 1 inch of water.

Proper irrigation now will help reduce problems later in the summer.

**Weed Control** Apply preemergence herbicides late February to mid-March. Apply postemergence herbicides in May as needed to control summer annual and perennial broadleaf weeds like white clover, knotweed, spurge, and lespedeza. Products containing two or three different broadleaf herbicides are more effective in controlling broadleaf weeds in a lawn. Be sure the product you choose is labeled for use on zoysiagrass. Wait 3 weeks after the grass has turned green, and then use it only if weeds are present. (See *Pest Control Recommendations for Turfgrass Managers*, AG-408).

**Insect Control** Check for and control any white grubs.

**Disease Control** Circular patches of tan or brown sunken turf 2 to 10 feet in diameter may appear as zoysia greens up, especially if there is extended rainy or overcast weather. Turf within the affected area thins, and most of the shoots die. As temperatures increase, recovery begins but is slow. DO NOT apply nitrogen until you see that the lawn has started to improve. Control Brown (Large) Patch Disease by mowing to the proper height, mowing when the lawn is dry, and controlling thatch. Applying a fungicide in the spring is not recommended.

**Thatch Removal** After the grass has turned green, use a vertical mower (power rake) to remove thatch (a layer of undecomposed grass stems) if it is more than ½ inch thick. Do not attempt to remove too much thatch at one time because zoysiagrass recovers slowly. Several thatch removals over several seasons may be needed.

**Renovation** Replant large areas using zoysiagrass sod or plugs. Plugs should be planted on 6- or 12-inch centers (see *Carolina Lawns*, AG-69). After plugging, apply a preemergence herbicide that does not interfere with zoysiagrass root growth to help prevent weeds.

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## June through August

**Mowing** Follow March through May guidelines.

**Fertilization** Apply ½ pound of nitrogen per 1,000 square feet in late June or early July. Repeat in mid-August.

**Watering** Follow March through May guidelines.

**Weed Control** Apply postemergence herbicides as needed to control summer annual and perennial broadleaf weeds. Do not apply postemergence herbicides unless weeds are present, grass is actively growing, and the lawn is not suffering >from drought. Crabgrass species, goosegrass, dallisgrass, purple and yellow nutsedge, annual sedges, and sandbur can be controlled with postemergence herbicides. However, two or three applications will be necessary for satisfactory control. Zoysiagrass is sensitive to these compounds, so select the herbicide carefully.

**Insect Control** Follow the March through May guidelines. August is the best time to control grubs because they are small and feeding near the soil surface. (See *White Grub Control in Turf*, AG-366.)

**Thatch Removal** Vertically mow in June or July as needed using the March through May guidelines.

## September through November

**Mowing** Follow March through May guidelines.

**Fertilization** DO NOT apply nitrogen at this time. DO apply 1 pound of potassium (potash K<sub>2</sub>O) using 1.6 pounds of muriate of potash (0-0-60), 2 pounds of potassium sulfate (0-0-50), or 5 pounds of sul-po-mag (0-0-22) per 1,000 square feet.

*To determine the amount of product needed to apply 1 pound of potash per 1,000 square feet, Divide 100 by the THIRD number on the fertilizer bag. For example, if you've got a 6-6-12 fertilizer, divide 100 by 12 and you get 8.3. That means you need to apply 8.3 pounds of product for every 1,000 square feet of lawn.*

**Watering** You won't have to water much once the lawn is dormant (has turned brown), but do water if the soil is powder dry.

**Weed Control** Apply preemergence herbicides to control winter annual and perennial broadleaf weeds like chickweed and henbit. Apply postemergence herbicides only when weeds are present.

**Insect Control** Check for and control any white grubs.

**Disease Control** If Brown (Large) Patch Disease is a chronic problem, apply a fungicide as a preventive. (See *Pest Control Recommendations for Turfgrass Managers*, AG-408.)

## December through February

**Mowing** It is not necessary to mow, but do remove rocks, sticks, and leaves.

**Fertilization** DO NOT fertilize zoysiagrass at this time. Soil should be tested every 3 years; contact your county Cooperative Extension agent for details. Apply lime or sulfur as suggested to modify soil pH.

**Watering** Water occasionally if a drought occurs.

**Weed Control** Apply broadleaf herbicides as necessary to control winter annual weeds like chickweed. Apply a nonselective herbicide in December or January to control annual bluegrass and various broadleaf weeds.

## More About Zoysiagrass

Zoysiagrasses are low-growing, very slow-growing, sod-forming grasses that make a very dense, wear-resistant lawn, but it is slow to recover from injury. Zoysia grows best in full sun or partial shade and is well adapted to the piedmont and coastal plain. It requires less mowing but is tougher to mow than bermudagrass. It is easier to keep out of ornamental beds than bermudagrass.

Zoysiagrass is normally vegetatively planted (sod or plugs), but seeded varieties like "Zenith" are available. Establishment from plugs is very slow (typically 2 to 4 years). Once established, zoysiagrass may become "thatchy" (puffy due to an accumulation of decomposing plant residue at the soil surface). This most frequently occurs when it is mowed too high or too infrequently or is excessively fertilized. Thatch may need to be carefully removed every 2 to 3 years; recovery is slow.

**Vegetative Types.** "Emerald" zoysiagrass has very fine leaves, good winter hardiness, shade tolerance, and wear resistance, a moderate spreading rate, and a dark green color. "Meyer" zoysiagrass has a medium leaf texture, is less shade tolerant, and is a lighter green color than "Emerald". Little research information is available for newer varieties like "Empress" or "Empire".

Zoysiagrasses are subject to diseases, such as Rust, Brown (Large) Patch, and Dollar Spot. (See *Diseases of Warm-Season Grasses*, AG-360). They are also susceptible to damage by nematodes, particularly in the coastal plain.

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