

## **Agriculture and Natural Resources**

FSA6122

#### Lawn Care Calendar

# Zoysiagrass

John Boyd Professor -Weed Scientist These suggested maintenance practices will help you care for your lawn throughout the year. Because every site is different due to variations in location, terrain, soil type, condition of lawn, previous lawn care and other factors, adjust these practices and dates to suit your home lawn.

Zoysiagrass (Zoysia spp.) is a warm-season turfgrass that has been used in Arkansas since the 1950s and is still gaining popularity. Zoysiagrasses are low, slow-growing, sodforming grasses that make a dense, wear-resistant lawn. Zoysiagrass grows well in full sun or partial shade. It requires less mowing and fertilization but is tougher to mow and easier to keep out of flowerbeds than bermudagrass. However, once zovsiagrass invades a landscape bed, it is difficult to selectively control because it is relatively tolerant of the selective grass herbicides.

Zoysiagrass is well adapted to all of Arkansas and is usually planted as sod. Seeded zoysiagrasses are available but may lack some of the desirable characteristics of the sodded cultivars. For more information about choosing a cultivar, see *Choosing a Grass for Arkansas Lawns*, FSA2112.

Before you begin following the lawn maintenance calendar, obtain a soil test. A soil test provides key information including soil pH, potassium and phosphorous levels. Soil testing is free through county Cooperative Extension Service offices. Proper soil pH is necessary to produce a healthy,

high-quality, attractive lawn. Zoysiagrass prefers a soil with a pH from 5.8 to 6.5 but will tolerate a range of soil pH. For more information about soil pH in lawns, see *Liming Your Lawn*, FSA6134.

Once zoysiagrass is established, it can become thatchy (accumulation of dead, decaying plant residue at the soil surface), especially when mowed high and infrequently or when heavily fertilized and overirrigated. Thatch needs to be removed every two to three years through core aerification or dethatching, but care should be taken because the recovery rate of some zoysiagrass cultivars is slow. For more information about thatch, see *Thatch Prevention and Control*, FSA6139.

Zoysiagrasses perform best when mowed with reel mowers; however, good performance can be achieved using a rotary mower with sharp blades set as low as possible without scalping. Uneven terrain may prevent zoysiagrass from being mowed as short as desired. Zoysiagrass varieties available within Arkansas include Crowne, Palisades, Meyer, Emerald, Himeno, El Toro, Cavalier, Zorro and Empire. Meyer is the most widely available zoysiagrass in Arkansas, and other cultivars are also available.

Zoysiagrasses are subject to diseases such as rust, dollar spot and large patch, which is sometimes referred to as brown patch or zoysia patch.

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### Zoysiagrass maintenance calendar

This table shows the optimum time period to perform various maintenance practices to your tall fescue lawn. The optimum lawn maintenance period may be started earlier or extended based on variations in annual weather conditions and/or location in Arkansas.

A is displayed for an Acceptable month for the designated task.

**B** is displayed for the Best month for the designated task.

| Task                         | Jan | Feb | Mar | Apr | May | Jun | Jua | Aug | Sep | Oct | Nov | Dec |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Watering                     |     |     |     | Α   | Α   | В   | В   | В   | Α   | Α   |     |     |
| Mowing                       |     |     |     | Α   | В   | В   | В   | В   | В   | Α   |     |     |
| Fertilization                |     |     |     |     | Α   | В   | В   | В   | Α   |     |     |     |
| Liming                       |     | Α   | В   | В   | Α   |     |     |     | Α   | В   | В   | Α   |
| Aeration                     |     |     |     | Α   | В   | В   | В   | В   | Α   |     |     |     |
| Dethatching                  |     |     |     | Α   | В   | В   | В   | Α   |     |     |     |     |
| Seeding                      |     |     |     |     | Α   | В   | Α   |     |     |     |     |     |
| Sodding                      |     | Α   | Α   | В   | В   | В   | В   | В   | В   | Α   | Α   | Α   |
| Weed control                 |     |     |     |     |     |     |     |     |     |     |     |     |
| Preemergence-crabgrass       | Α   | В   | В   | Α   |     |     |     |     |     |     |     |     |
| Postemergence-broadleaf      |     |     | Α   | В   | В   | В   | Α   |     | Α   | В   | Α   |     |
| Postemergence-grasses/sedges |     |     |     | Α   | В   | В   | В   | Α   |     |     |     |     |
| Postemergence-winter annuals |     |     |     |     |     |     |     |     |     |     | В   | В   |

| Task        | March Through May   |
|-------------|---|
| Mowing      | Before zoysiagrass begins to grow in the spring, you may mow the turf slightly shorter than normal to remove dead leaf blades and other debris. This practice will reduce shading of the emerging plants and also serve to warm soil temperatures more quickly in the spring. Carefully inspect the turf before removing dead leaf tissue and debris to ensure there are no green shoots emerging. Zoysiagrass lawns often do not go fully dormant like bermudagrass during winter. Therefore, this practice is likely to be more damaging on a zoysiagrass lawn than a bermudagrass lawn. Begin mowing when the grass turns green in the spring. Zoysiagrass should be mown at 0.75 to 2.5 inches. Cultivars such as Emerald, Cavalier and Zorro can be mown at heights from 0.75 to 1.5 inches. Other cultivars should be mown at 1.5 to 2.5 inches. Higher mowing heights may be needed on uneven lawns to avoid scalping. Mow often to avoid removing more than one-third of the leaf blade. It isn't necessary to collect clippings unless they remain as clumps on the lawn surface. Mowing more frequently to avoid clipping buildup is more efficient than emptying the collection bag. For more information about mowing, see <i>Mowing Your Lawn</i> , FSA6023. |
| Fertilizing | Apply 0.5 pound of nitrogen per thousand square feet approximately 3 weeks after the grass turns green in late May. Submit a soil sample to determine phosphorus and potassium requirements, if you haven't already (contact your county Extension office). Apply lime if suggested. Do not apply more than 2 pounds of nitrogen per 1,000 square feet per year. For more information about fertilization, see <i>Fertilizing Your Lawn</i> , FSA2114. For more information about soil pH in lawns, see <i>Liming Your Lawn</i> , FSA6134.  |
|             | To determine the amount of fertilizer product required to apply 0.5 pound of nitrogen per thousand square feet, divide 0.5 by the first number (%) in the fertilizer ratio. For example, for a 20-5-5 fertilizer (containing 20% nitrogen), divide 0.5 by 0.20 (NOTE: 20% = 0.20). The result is 2.5 pounds of product per thousand square feet. For more information on calculating the amount of fertilizer you need to apply, see <i>Fertilizing Your Lawn</i> , FSA2114.  |

| Task            | March Through May  |
|-----------------|--|
| Watering        | Irrigation is seldom needed on zoysiagrass during the spring except for newly sodded areas or if dry, hot, windy conditions occur for an extended period. A dark, bluish gray color, foot-printing, and wilted, folded or curled leaves indicate that it is time to water. Proper irrigation may prevent or reduce pest problems and environmental stress later in the summer.   |
| Disease Control | If you find brown, circular patches of grass up to several feet in diameter, you may have large patch. Achieving control of large patch with fungicides is difficult. A better approach is to improve drainage and air movement and reduce nitrogen fertilization and irrigation. Reduce nitrogen fertilization to a minimum and avoid overwatering if large patch is a problem in your lawn. See FSA7527, <i>Rhizoctonia Large Patch Disease of Zoysiagrass and Bermudagrass</i> , for more disease control information.  |
| Weed Control    | Apply preemergence herbicides to control crabgrass in late February or early March. Control broadleaf weeds with a postemergence application of a two- or three-way herbicide containing 2,4-D + dicamba and/or MCPP (Ortho® Weed-B-Gon®). Do not exceed two applications per year of a two- or three-way herbicide containing 2,4-D + dicamba and/or MCPP with a minimum of 30 days between applications. For difficult to control weeds like ground ivy or lespedeza, products containing triclopyr (Ortho® Chickweed and Oxalis Killer®) are more effective. Use a product containing quinclorac for postemergence crabgrass control. Use SedgeHammer® (halosulfuron) for postemergence control of sedges. For weed pictures and more control information, find <i>Turfgrass Weed Control</i> at <a href="https://www.uaex.uada.edu/publications/pdf/mp521.pdf">www.uaex.uada.edu/publications/pdf/mp521.pdf</a> . See page 8 for crabgrass control, page 16 for sedge control and pages 11, 13 and 17 for broadleaf control. |
| Insect Control  | Check for insect pests and treat if necessary.   |
| Renovation      | Replant large bare areas using sod or plugs planted on 6- or 12-inch centers. Applying a preemergence herbicide that does not interfere with root growth after plugging helps prevent weed encroachment.   |
| Task            | June Through August  |
| Mowing          | Zoysiagrass should be mowed every 5 to 7 days and less often when the lawn is drought stressed.  |
| Fertilizing     | Apply 0.5 to 0.75 pounds of nitrogen per thousand square feet in late June or early July and repeat in mid-August. Do not apply more than 2 pounds of nitrogen per 1,000 square feet per year.   |
| Watering        | Water early in the morning to wet the soil to a depth of 4 to 6 inches. Probe with a screwdriver to determine moisture depth. Zoysiagrass needs a weekly application of 1 to 1.25 inches of water to retain its color during summer. It needs even less to survive and can go several weeks without supplemental irrigation. On sandy soils, it requires more frequent watering, for example, 0.5 inch of water every third day. It is often necessary to irrigate an area for three to five hours to apply 1 inch of water with most homeowner irrigation systems. (It takes 620 gallons of water to apply 1 inch of water per thousand square feet.) Because clay soils accept water slowly, irrigate these areas until runoff occurs; wait one-half hour until the water has been absorbed, and then continue irrigating until the desired depth or amount is obtained. A dark, bluish gray color, foot-printing, and wilted, folded or curled leaves indicate that it is time to water.                                      |
| Cultivation     | Thatch needs to be removed every two to three years through core aerification or dethatching. Cultivation during the early summer is preferred because moisture is usually not limiting and growth is optimum for recovery. For more information about thatch, see <i>Thatch Prevention and Control</i> , FSA6139.   |
| Disease Control | Rust may occur on zoysiagrass during the summer. This disease will cause minor turf injury and a fungicide application is usually not recommended. Increase N fertility during these months to reduce rust.  |
| Weed Control    | Apply postemergence herbicides as needed to control summer broadleaf weeds such as spurge, knotweed and lespedeza. Do not exceed two applications per year of a two- or three-way herbicide containing 2,4-D + dicamba and/or MCPP with a minimum of 30 days between applications. For post-emergence crabgrass control, apply a product containing quinclorac. Make two applications 14 days apart. Use SedgeHammer® (halosulfuron) for sedge control. Apply postemergence herbicides only when weeds are present, the lawn is actively growing and not suffering from drought. To improve annual bluegrass control, apply a preemergence herbicide on August 15 and water in immediately.  |
| Insect Control  | Check for insect pests such as billbugs and treat if necessary.  |
| Renovation      | Replant large bare areas using sod or plugs planted on 6- or 12-inch centers. Sod will establish more quickly in the summer months compared to the spring. Keep newly planted sod well watered the first two weeks after establishment. If using seed to establish areas, seed in June or early July for best results.   |

| Task            | September Through November   |
|-----------------|--|
| Mowing          | Zoysiagrass should be mowed every 5 to 7 days. Less frequent mowing will result in reduced turfgrass quality. Zoysiagrass on shaded sites may be mowed slightly higher than a lawn in full sun. It isn't necessary to collect clippings unless they are thick enough to block sunlight. Mowing more frequently to avoid clipping buildup is more efficient than emptying the collection bag.   |
| Fertilizing     | Do not fertilize with nitrogen. Apply lime if suggested. Potassium can be applied if soil tests indicate a need.   |
|                 | To determine amount of product required to apply 1 pound of potash per thousand square feet, divide 1.0 by the third number in the fertilizer ratio. For example, for a 0-0-60 fertilizer, divide 1.0 by 0.60. The result is 1.6 pounds of product per thousand square feet.   |
| Watering        | Follow the March through May irrigation guidelines. Dormant zoysiagrass may still need to be watered periodically when dry, windy weather prevails. Additionally, newly planted sod should be watered during this period to prevent desiccation.   |
| Disease Control | If you find brown, circular patches of grass up to several feet in diameter, you may have large patch. Achieving control of large patch with fungicides is difficult. A better approach is to improve drainage and air movement and reduce nitrogen fertilization and irrigation. Reduce nitrogen fertilization to a minimum and avoid overwatering if large patch is a problem in your zoysiagrass. If brown patch is severe, an application of fungicide may be required, preferably about 2 to 4 weeks before the grass goes dormant. |
| Weed Control    | Apply postemergence herbicides as needed to control broadleaf weeds such as henbit and chickweed. Do not exceed two applications per year of a two- or three-way herbicide containing 2, 4-D + dicamba and/or MCPP with a minimum of 30 days between applications.   |
| Task            | December Through February  |
| Fertilizing     | Do not fertilize. Submit soil samples for analysis every 2 to 3 years to determine your lawn's nutrient requirements. Be sure to specify your lawn species.  |
| Watering        | Newly planted sod may need to be irrigated periodically to prevent desiccation especially when dry, windy conditions occur for an extended period.   |
| Weed Control    | Do not use glyphosate for winter weed control in zosyiagrass. Unlike bermudagrass, it never goes completely dormant. Apply postemergence herbicides as needed to control broadleaf weeds such as henbit, chickweed, spurweed and hop clover. Apply postemergence herbicides only when weeds are present. Do not exceed two applications per year of a two- or three-way herbicide containing 2,4-D + dicamba and/or MCPP with a minimum of 30 days between applications.   |

#### **Additional Information**

Additional fact sheets available at <a href="http://www.uaex.uada.edu">http://www.uaex.uada.edu</a>
Additional information about turfgrass management available at <a href="http://turf.uark.edu">http://turf.uark.edu</a>

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