

**Cooperative Extension Service** 

FSA6122

#### Lawn Care Calendar

# Zoysiagrass

Aaron Patton Assistant Professor -Turfgrass Specialist

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 zoysiagrass 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 zovsiagrass 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 available at specific locations. For more information on locating zoysiagrass cultivars, see the Arkansas Sod Source Directory, FSA6136.

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

## Arkansas Is Our Campus

Visit our web site at: http://www.uaex.edu

## Zoysiagrass maintenance calendar.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Watering <sup>†</sup>				•	•	•	•	•	•	•		
Mowing				•	•	•	•	•	•	•		
Fertilization					•	•	•	•	•			
Liming		•	•	•	•				•	•	•	•
Aeration				•	•	•	•	•	•			
Dethatching				•	•	•	•	•				
Seeding					•	•	•					
Sodding		•	•	•	•	•	•	•	•	•	•	•
Weed control												
Preemergence-crabgrass		•	•	•								
Postemergence-broadleaf			•	•	•	•	•		•	•	•	
Postemergence-grasses/sedges				•	•	•	•	•				
Postemergence-winter annuals											•	•

<sup>†</sup> Bullets represent the optimum time period to perform various maintenance practices to your zoysiagrass lawn. The optimum lawn maintenance period may be started earlier or extended based on variations in annual weather conditions and/or location in Arkansas. Dark bullets represent the best months for each practice, and lightly shaded bullets represent possible months.

	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 three 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.

	March Through May (cont.)
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 and other summer annual grasses in late February or early March. In May, crabgrass, annual sedges and sandbur can be controlled with MSMA if problematic. Two applications 5 to 7 days apart are required for effective control.
	Apply postemergence herbicides in May as needed to control summer annual and perennial broadleaf weeds such as knotweed, spurge and lespedeza. Products containing two or three broadleaf herbicides are usually more effective in controlling several different broadleaf weeds in a lawn. Be sure the product is labeled for use on zoysiagrass. Apply only if weeds are present and wait until three weeks after the grass turns green. See FSA2109, <i>Home Lawn Weed Control</i> , for more weed control information.
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.
	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 lbs 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 since 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 is a disease that 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 annual and perennial broadleaf weeds such as knotweed, spurge and lespedeza. Do not apply postemergence herbicides unless weeds are present, grass is actively growing and the lawn is not suffering from drought stress.
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.

	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 preemergence or postemergence herbicides as needed to control winter annual and perennial broadleaf weeds such as chickweed and henbit. Preemergence herbicides will not control existing perennial weeds. Apply postemergence herbicides only when weeds are present.
	December Through February
Fertilizing	Do not fertilize. Submit soil samples for analysis every 2 to 3 years to determine your lawns 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	Apply broadleaf herbicides as necessary to control chickweed, henbit and hop clover. Apply postemergence herbicides only when weeds are present. Selective herbicides like simazine can be applied in November or December to control annual bluegrass and several winter annual broadleaf weeds such as henbit.

### **Additional Information**

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

 $\label{thm:condition} \mbox{Printed by University of Arkansas Cooperative Extension Service Printing Services}.$ 

**DR. AARON PATTON** is assistant professor - turfgrass specialist with the University of Arkansas Division of Agriculture, Cooperative Extension Service, in Fayetteville. **DR. JOHN BOYD** is professor - weed scientist with the University of Arkansas Division of Agriculture, Cooperative Extension Service, in Little Rock.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.