



Zoysia Grass

Fertilization & Weed Prevention Program

www.wplawinc.com

Let's create something beautiful



INTRODUCTION

Since 1970, W. P. Law, Inc. has been the trusted source for irrigation components throughout South Carolina. We are proud to announce the newest line of products to help keep your property looking its best. Our contractor grade fertilizers and weed prevention products will ensure you get the professional results you desire.

The horticulture staff at W. P. Law, Inc. has assembled an easy-to-follow schedule with application rates to take the guess work out of proper fertilization and weed control.

Allow us to use our numerous years of experience to assist you in saving time while producing a healthier landscape.

BACKGROUND

Zoysia is a grass that originated in eastern Asia. It has seen an increase in popularity in recent years with the development of newer varieties. Appearance can vary as there are three different species of this grass. Older varieties are notorious for heavy thatch accumulation and difficulty to mow. Many of these problems have been addressed in the newer varieties.

Zoysia exhibits good shade and wear tolerance and is an excellent choice for a home lawn with varying levels of sunlight. Zoysia has better cold tolerance than most of the warm season grasses and is drought tolerant. Sodding is the primary method of establishment since sprigs or seeding is extremely slow. It is also slow to recover from injury. Zoysia spreads from above and underground runners. Zoysia is no different from most other warm season grasses in that it is also susceptible to patch diseases.

COMMON MANAGEMENT MISTAKES

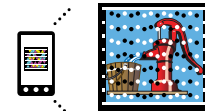
- Mowing height too low
- Over-watering
- Poor Drainage



Soil Testing Services Available

Over fertilization of Zoysia can lead to thatch problems on this grass. Lime applications can increase activity levels of soil micro-organisms that will help break down thatch. The shoots and roots that are shed during the growing process contribute to thatch build up. A common misconception is that grass clippings are the primary source of thatch. Grass clippings actually break down very quickly and will not create thatch problems. Aerating with a core aerator is another useful management tool on Zoysia. Many of the newer varieties can be cut with a rotary mower and show signs of being less prone to thatch build up.

Proper irrigation practices are essential on Zoysia to help prevent patch disease. Over watering creates conditions that are conducive for disease spores to propagate and cause infection.



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After downloading
the app, scan this
tag to visit our
website

Diseases are most active during the growing season. Spring and fall fungicide applications can help alleviate disease pressure. Most patch diseases are a result of over watering. We recommend using an irrigation controller with a weather station or soil moisture sensors to only apply water when needed.

Because of Zoysia's tendency to produce thatch, over fertilizing should be avoided. Slow release fertilizers offer a continual feed that will help reduce the amount of thatch in your lawn. Adding Sol-u-cal can also help reduce thatch by stimulating soil micro-organisms that help break it down.

Mowing too low and too infrequently can lead to scalping. Since Zoysia is slow to recover from injury, special attention should be paid when mowing. If there is unevenness in the lawn, consider topdressing with sand to help smooth out low areas.

SOILS

A practical understanding of your soil is essential in managing your lawn. Soil pH is perhaps the most crucial element. Most turf grasses perform best when the soil pH falls between 6.3 and 7.0. If your soil pH does not fall within this range, essential nutrients will not be available to the grass. W.P. Law Inc. offers a complete soil testing service. Soil samples can be dropped off at any of our locations around the state.

Sol-u-Cal - Used to adjust soil pH. When applied at a rate of 12 pounds per 1,000 sq. ft., Sol-u-Cal will raise the pH as much as one point in as little as 4-6 weeks.

ZOYSIA TRAITS

- Fertility** - Medium
- Drought Tolerance** - Medium
- Shade Tolerance** - Good
- Disease Problems** - Patch Diseases, Rusts
- Insect Problems** - Low
- Recovery Rate** - Poor
- Density** - Medium
- Texture** - Fine to Medium depending on cultivar
- Wear Tolerance** - Good

AERATION

Aeration has two purposes. The first is to simply loosen the soil. The second is to prune the roots. Core aeration is the recommended method and should be performed every 2 years on a typical home lawn during the growing season. If your lawn receives heavy foot traffic, it is advisable to aerate every year. Aeration should be performed during the growing season of the turf.

PRE-EMERGENT HERBICIDES

Pre-emergent herbicides are used to prevent annual weeds from germinating in your lawn by forming a protective chemical barrier on the soil surface. There are both cool season and warm season annual weeds that germinate at various times throughout the year. By applying a pre-emergent herbicide, an ounce of prevention is worth a pound of cure. **NEVER apply these products on a lawn that is not well established!**

MOWING

Zoysia performs best when mowed closely. We suggest that your lawn be mowed as close to 1 to 2 inches as possible. The height of cut should be easily obtained as long as the lawn is smooth. If there are severe irregularities in the grade, be careful not to scalp certain areas. Scalping a lawn could cause damage to the crown of the plant.

In order for Zoysia to look its best, it is recommended that your lawn be mowed every 7-10 days. This ensures that you avoid that "white" color of the lawn just after mowing. A good rule of thumb is to NEVER remove more than 1/3 of the leaf blade during mowing.



Zoysia should be mowed at a height of 1 to 2 inches.

For a complete list of labels and MSDS for the products listed in this program, visit our website at

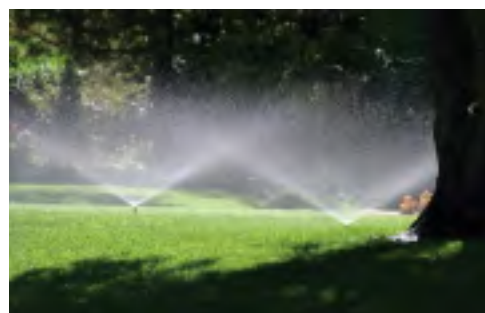
www.wplawinc.com/labels_msds

WATERING

The watering requirement for your Zoysia lawn will vary greatly due to constantly changing weather conditions. During the growing season, it may need anywhere from 0-1.5" of water per week. The professionals at W. P. Law, Inc. suggest using an irrigation controller with a weather station or soil moisture sensors to compensate for these changing conditions.

Studies have shown these types of controllers can save 20-50% on your water bill over traditional time based controllers. Existing controllers can also be fitted with this water saving technology.

In addition to saving water and money, there is no need for continual adjustment. The result is a better looking lawn with less effort. Because these "smart controllers" only apply water when needed, they will usually pay for themselves in water savings within the first year.



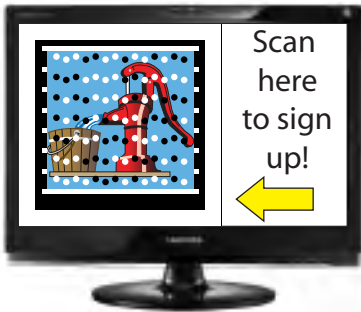
Irrigation controller and weather station.

Disclaimer:

This fertilizer and weed prevention program is an informal reference for herbicides and fertilizers available for turfgrass management. It is not meant to supplement any product labels. Herbicide and fertilizer labels should always be consulted before being applied. Labels are subject to change without notice. Due to differences in grass varieties, environmental conditions, temperature, stress, moisture conditions, plant health, and other factors, herbicide and fertilizer applications may cause undesirable injury to grasses. W.P. Law Inc. does not guarantee or warranty the use of products listed in this program. Please remember that the label is the law.

ZOYSIA FERTILIZER AND WEED PREVENTION PROGRAM

January	Soil Test and Sol-u-cal (if necessary) - Soil Testing available through W. P. Law, Inc. Sol-u-cal adds calcium to the soil and raises the pH to ensure necessary nutrients are available to your grass.
Feb. 15th- Mar. 15	0-0-7 Barricade 0.38% or 0-0-7 Dimension 0.13% (3# per 1000 sq. ft.) (3.3# per 1000 sq. ft.) Prevents summer annual weeds such as crabgrass.
April 15th	18-24-12 Starter Fertilizer (4# per 1000 sq. ft.) Provides phosphorus to promote root growth.
May 15th- June 1st	19-0-6 Barricade 0.38% or 19-0-6 Confront3 + Dimension 0.145% (3# per 1000 sq. ft.) (4# per 1000 sq. ft.) 16-0-8 Barricade provides extended preventative weed control Or use 19-0-6 Confront3 + Dimension to control existing broadleaf weeds with the addition of Dimension for extended preventative weed control.
July	25-0-10 Fertilizer (5# per 1000 sq. ft.) Maintains steady even growth with balanced slow release nutrients.
August	6-1-11 with 7% Iron (5# per 1000 sq. ft.) Produces green color without flushing top growth in late season.
Sept. 15th- Oct. 15th	0-0-7 Barricade 0.38% or 0-0-7 Dimension 0.13% (3# per 1000 sq. ft.) (6.6# per 1000 sq. ft.) Prevents winter annual weeds such as annual bluegrass (<i>Poa annua</i>).



Need a reminder of when to apply? . . . Go to
www.wplawinc.com/grass-fertilizer-program
and sign up to receive e-mail
notifications and important information

In addition to fertilizers, W.P. Law Inc. offers a broad range of control products to keep landscapes looking their best. Our insect control program works great on fire ants and other lawn damaging insects. This newer generation broad-spectrum insecticide gives up to three months control and works on insects such as fire ants, spittlebugs, armyworms, cutworms, fleas, ticks, mole crickets, sand gnats, millipedes, and centipedes. Two applications per year will give season long control on most unwanted insects. Consult the W.P. Law Inc. Turfgrass Insect Management Guide for additional information on insects that cause damage to turf. A copy of the guide is available for download at www.wplawinc.com/turfgrass

W.P. Law Inc. also offers a complete line of granular fungicides to protect your turf against diseases that can cause severe injury. There are a variety of diseases that can cause injury to Zoysia grass. In recent years, large patch (brown patch) has become the number one disease on warm-season turf. Below is a fungicide program to help prevent large patch infestation. For additional information on other diseases that affect Zoysia grass, visit www.wplawinc.com/turfgrass to download a copy of the W.P. Law Inc. Turfgrass Disease Management Guide.

Read entire label before using the products.
Use only according to label instructions.

For a list of spreader settings, visit
www.wplawinc.com/grass-fertilizer-program

INSECT CONTROL PROGRAM

April	Bifenthrin Granular Insecticide Broad spectrum insect control that lasts up to 3 months. Works great on fire ants. (2.3# - 4.6# per 1000 sq. ft.)
July	Bifenthrin Granular Insecticide Broad spectrum insect control that lasts up to 3 months. Works great on fire ants. (2.3# - 4.6# per 1000 sq. ft.)

Brown Patch on Warm-Season Turf (Large Patch) (*Rhizoctonia solani*)



Management Tips:

- Make initial nitrogen applications in May once grasses are fully out of dormancy. Do not make any nitrogen applications after Aug. 15th.
- Avoid early season and late season nitrogen applications when the disease is active
- Avoid over irrigating grasses during Spring months
- Increase the height of cut and increase air circulation if possible
- Minimize the amount of shade the grass receives
- Irrigate turf in the early part of the day. Irrigate deeply and infrequently
- Improve drainage. Grasses such as Centipede and St. Augustine are stressed by excessive moisture.
- Reduce thatch
- Apply lime if soil pH is less than 6.5

Symptoms: Large patch typically attacks grasses when they are in the transition stage. This occurs during the spring and fall months when grasses are going in and out of dormancy. Large patch can be identified by large circular patches ranging from 2-20 feet in diameter. Patches often have a yellow to light brown band around them. These patches can be perennial and occur in the same spot from year to year. Large patch produces soft, dark rot that occurs on the lower portion of leaf sheaths. Rot at the basal portion of the leaf sheath causes shoots to easily detach from stolons. Distinct leaf lesions are usually not noticeable with large patch. This disease has quickly become the number one disease on warm season turf in South Carolina.

Conditions favoring the disease: Large patch occurs when daytime temperatures are in the 50° F to 85° range. Warm days with cool nights along with heavy dew favor disease development. Large patch is more active in the spring and fall months and can be brought about by conditions of high humidity and leaf wetness of more than 10 hours for several consecutive days. Because this disease attacks grasses during their transition stage, recovery is often slow.

LARGE PATCH FUNGICIDE PROGRAM

April	Pillar G Fungicide Broad-spectrum systemic fungicide with two active ingredients (3# per 1000 sq. ft.)
Sept.	Pillar G Fungicide Broad-spectrum systemic fungicide with two active ingredients (3# per 1000 sq. ft.)
Oct.	Pillar G Fungicide Broad-spectrum systemic fungicide with two active ingredients (3# per 1000 sq. ft.)

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