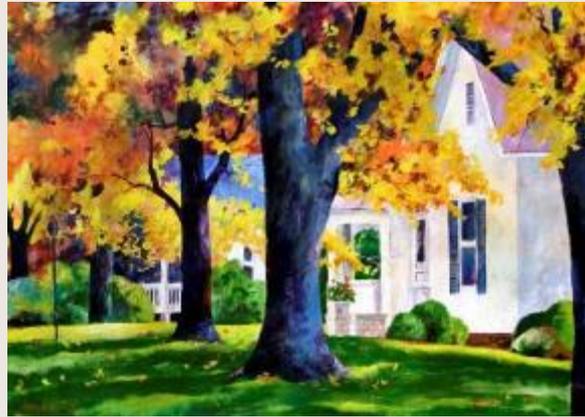


Home Turf Management

The Do's and Don'ts of taking care
of your lawn and the environment



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The Do's

- **Do take a soil test.**

Before seeding or applying fertilizer, take a soil test to determine the soil pH and nutrient levels.

- **Do seed in late summer or early fall.**

The best time of year to seed lawns is in the early fall. Cool temperatures and moist soils during late summer and early fall promote root and plant growth for a healthier spring/summer lawn.

- **If you have to seed in the spring,** plant around the time that forsythia is in bloom, as soil temperatures are adequate at this time for germination of tall fescue.

The Do's

- **Do apply nitrogen fertilizer in the fall.**

Fall applications improve the health of the lawn and result in a greener lawn in the winter, less spring mowing, less weeds, less heat stress, and less need for water. Also, fall applications do not promote disease problems.

- **Do apply a pre-emergent herbicide.**

Applying a pre-emergent herbicide prior to weed germination can drastically reduced weed numbers, and your lawn can have the chance to flourish without fighting weeds for space, nutrients, light, and water.

The Do's

- **Do mow at correct heights.**

Ideally, never cut off more than 1/3 of the grass blade in one mowing. For example, if you want to maintain your lawn at 3 inches, mow when the height reaches about 4.5 inches.

- **Do provide proper irrigation.**

A key to effective watering is to irrigate deeply, to a 4-to 6-inch soil depth, and infrequently.

- **Do rake or mow to remove fallen leaves.**

Leaves covering the lawn will interfere with sunlight and photosynthesis. Mowing will return nutrients to the soil.

The Don'ts

- **Don't seed in the spring.**
Immature grass seedlings can struggle with summer heat and drought.
- **Don't apply nitrogen in spring and summer.**
Spring/summer nitrogen promotes growth of warm-season weeds such as crabgrass, goosegrass, and bermudagrass and also creates potential summer lawn disease issues.
- **Don't scalp your lawn when mowing.**
Moving the lawn too low or removing more than 1/3 of the leaf blade results in a reduction in root growth.

The Don'ts

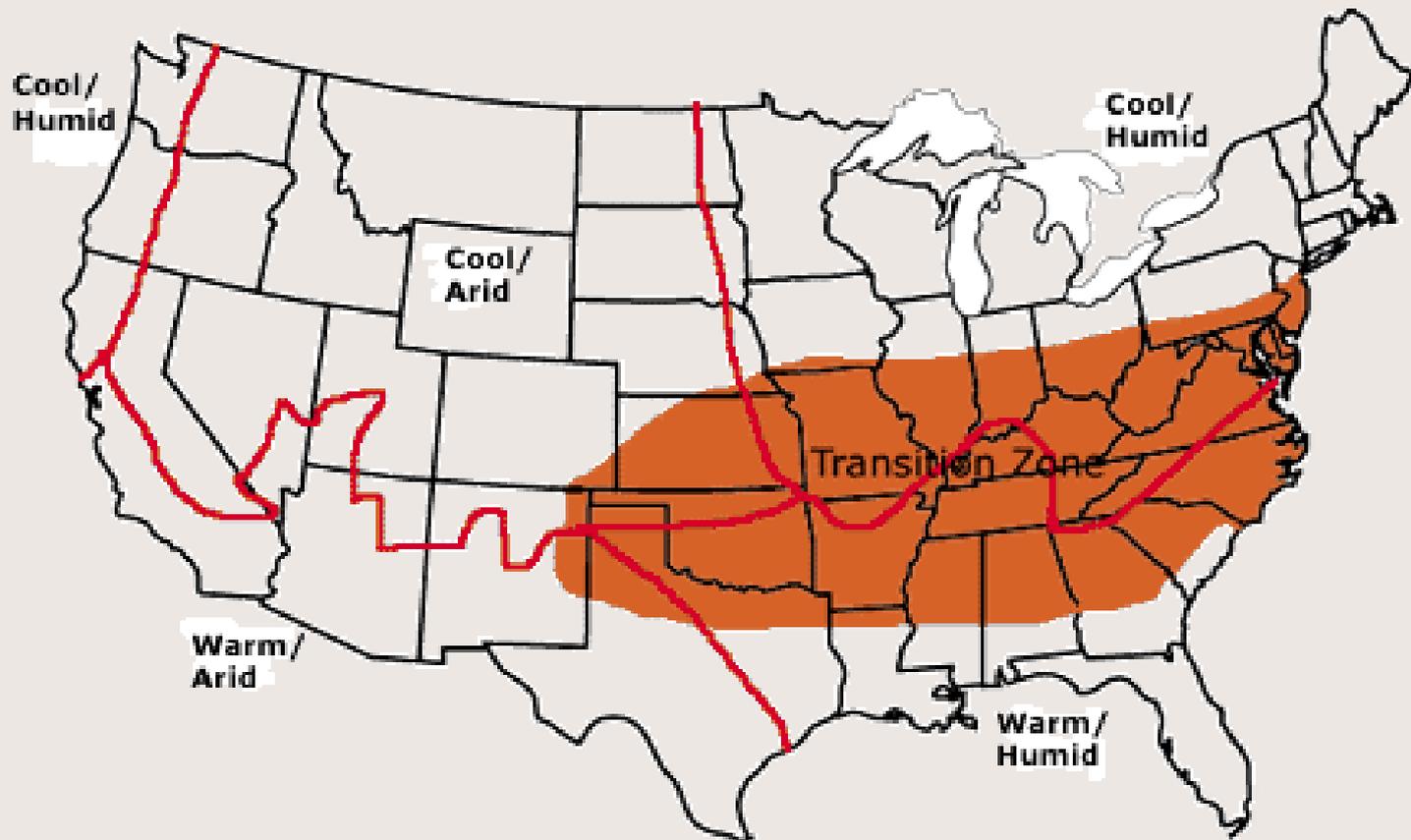
- **Don't water the lawn in late afternoon or evening.**
Wet grass blades and warm temperatures promote favorable conditions for lawn diseases.
Dollar spot, a common disease of Bermudagrass and zoysia, requires a leaf wetness period from 10 to 12 hours.
Brown patch, a common disease of tall fescue and Bermudagrass, requires a leaf wetness period exceeding 8 hours.
- **Don't mow your lawn when it's wet.**
This could damage your lawn and your lawn mower.

An estimated 25% or more of managed lawns experience shade stress.

- Although it may seem like we have light for turfgrass under trees, the portion of the light spectrum necessary for good turfgrass growth never makes it to the ground, as it is intercepted in the tree canopy.



- This map shows five turf-growing regions and an overlapping zone known as the **transition zone**.
- Selecting turfgrass in the transition zone means choosing species that may be best adapted but not necessarily well adapted for a particular area.



Air Temperature & Grass Growth

- **Bluegrass, fescue and ryegrass** grow best from **60 to 75° F**. Late August to mid-October is an ideal time to plant seed of these cool-season grasses.
- **Bermudagrass and zoysia grass** grow best from **80 to 95° F**. Seed, plugs or sprigs of these warm-season grasses should be planted between May 1 and June 30.
- **Sod** of cool-or warm-season grasses can be installed any time of the year, as long as the soil is not frozen.

Selecting a Fescue

- Fescue is the most popular lawngrass in middle Tennessee.
- Fescue grows best in deep, well-drained soils with air temperatures from 60 to 75 °F.
- High temperatures and drought slow their rate of growth during late spring and summer.

Tall Fescue needs full sun



Fine Fescue will tolerate shade



Soil Preparation Before Planting



- Test soils 6 to 8 weeks before planting date.
- Follow recommendations from soil test.
- A starter fertilizer can be worked into the seed bed prior to planting (example: 18-24-6).
- Control troublesome weeds before planting.

Preferred Seeding Dates

Cool-Season Grasses

J F M A M J J **Aug Sept Oct** N D

J F M A **May June July** A S O N D

Warm-Season Grasses

Seeding Fescue



- **5 to 8 lbs.** of seed per **1,000 sq. ft.**
- The best time to seed is **late August to mid-October.**
- Seeds germinate from 6 to 12 days.
- Cool temperatures and moist soils during late summer, fall, and early spring promote plant growth.
- Fescues may be seeded in early spring, but spring plantings often result in greater susceptibility to heat and drought stresses.
- Young fescue plants with limited root systems often do not survive the summer heat and dry conditions.

Seeding Bermudagrass



- **2 to 3 lbs.** of seed per **1,000 sq. ft.**
- The best time to plant Bermuda seed is in late spring to early summer after **soil temperatures are 65 to 70°** or higher and all danger of freeze or frost is past.
- The optimum soil temperature for germination and root growth of Bermudagrass is **75° to 80°F.**
- Seeds germinate from 7 to 10 days.
- Soil moisture must be maintained during the germination period.

Straw After Seeding

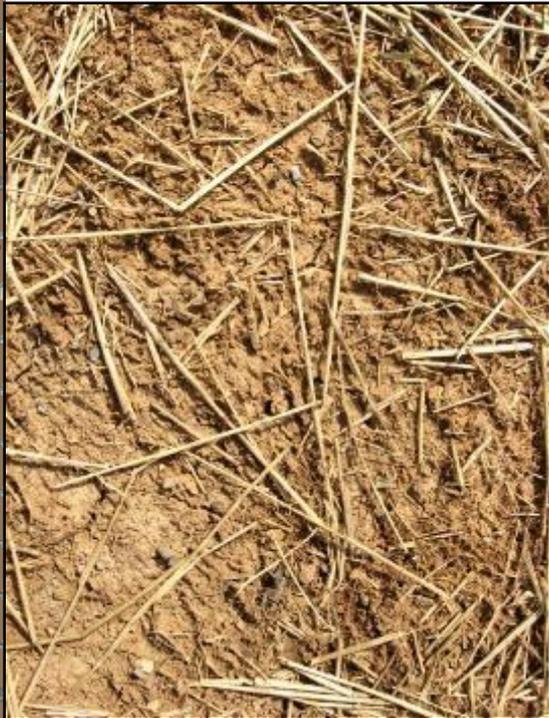
- Straw or hay should be broadcast uniformly over the seedbed to cover 50 to 75 percent of the soil surface.
- A one **50-pound-bale** will cover about **1,000 square feet**.
- Straw often contains some weed seeds.



Protecting the Seedbed

Cover $\frac{1}{2}$ of the soil surface with straw.

(Not Enough)



Too Much



Biodegradable Erosion Control Blankets

- Biodegradable erosion control blankets are used to stabilize erosion-prone soils while seedlings develop.



Watering the Lawn



- New plantings may require light daily irrigation for several weeks after seeding.
- **1/8 to 1/4 inch per 1,000 sq. ft.**
- As plants increase in size, more water can be applied less often.
- **1/2 inch per 1,000 sq. ft every two to three days**
- After new grass is **2 inches in height**, apply **1 inch of water weekly** to encourage deep rooting.

Fertilizing Fescue

- The application of **1/2 pound of N per 1,000 square feet**, three to five weeks after seedlings emerge will support continued plant growth.
- **Fescue** should be fertilized during its season of rapid growth, **March, April, September & October**.



Fertilizing Bermudagrass

- The application of **1/2 pound of N per 1,000 square feet**, three to five weeks after seedlings emerge will support continued plant growth.
- **Bermudagrass** should be fertilized during its season of rapid growth, **May, June, July & August**.



Aerating

Aerating is the process of punching holes (3-4 inches deep) into your lawn to allow water, oxygen, fertilizers, and other nutrients to penetrate the soil and better reach the roots of your grass.



Aerating Lawns



Cool-season Lawns

J F **M A** M J J A S O N D

Warm-season Lawns

J F M A **M J** J A S O N D

Mowing the Lawn



- Mow when the grass reaches a height about 1 1/3 times the proper cutting height.
- **Tall fescue** looks best when mowed **3" high**.
- In dry summers and when growing in heavy shade, mowing fescue to **3" high** helps the grass tolerate its environment.
- Keep the mower blade sharp and mow when the lawn is dry.
- Fescue seedlings may be easily torn or lifted from the soil by a dull mower blade.
- **Bermudagrass** mowed at 1" high produces a dense, wear tolerant turf.

Weed Types

- **Broadleaf Weeds:** Leaves are broad, detached from main stem by a sub-stem or petiole, have a netted appearance, may be simple or compound.



- **Grass Weeds:** Leaves are narrow, not detached from main stem, veins run parallel.



- **Sedges:** Are not grasses, but similar in appearance, leaves have a triangular stem.



Life Cycles



- **Winter Annuals:** **Germinate in late summer to early fall**, and begin to develop, are dormant or semi-dormant in winter, flower the following spring, mature and die in late spring or early summer.
- **Summer Annuals:** **Generally germinate in spring**, grow in summer, produce seed and die in late fall or after first hard frost.
- **Perennials:** **Live for more than 2 years**, may regenerate indefinitely, spread by seeds, stolons, rhizomes or nutlets.

Herbicide Types

- For controlling lawn weeds, there are generally two types of herbicides.
- **Preemergent Herbicides**
Control weeds by inhibiting their germination or their growth as seedlings.
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- **Postemergent Herbicides**
Control weeds by destroying leaf, stem, or root tissue.

Preemergent Herbicides

(Prevent weeds from becoming established)

- **Are applied to soil surface or incorporated into the soil a week or two before weed emergence.**
- Generally, preemergent herbicides fail due to non-uniform application, lack of irrigation and untimely re-treatment.
- **For best performance:**
 - (1.) Remove trash, leaves, & thatch
 - (2.) apply uniformly over treatment area
 - (3.) **Water in immediately after application, apply 1/2 inch or more of irrigation.**

Timely Applications

- **Winter annuals should be treated in the fall.**
When temperatures drop below 60° F at night, apply pre-emergent herbicides to control broadleaf winter annuals and annual bluegrass.
(approximately September 1 to October 15)
- **Summer annuals should be treated in spring.**
When daytime temperatures reach 65° F for four or more days, apply pre-emergent herbicides to control broadleaf summer annuals, crabgrass, and goosegrass.
(approximately February 1 to March 15)
- **Perennials should be treated in the fall.**

Resources

- Lawn Care: Selecting, Maintaining and Establishing the Fescues
- <https://extension.tennessee.edu/publications/Documents/PB1576.pdf>
- University of Tennessee Soil Lab
- <https://soillab.tennessee.edu/>

Resources

- Lawn Disease & Insect Control
- <https://ag.tennessee.edu/EPP/Redbook/41-Turf%20Disease.pdf>
- Conventional and Organic Products for Vegetable Gardens
- <https://extension.tennessee.edu/publications/Documents/W661.pdf>