

Online Publications



AGR-50

Lawn Establishment in Kentucky

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The methods you use and the grasses you select when you start your lawn will, to a great extent, determine the quality and ease of maintenance. A quality lawn will increase the value and appeal of your property, and maintaining it can be very satisfying work.

Both coolseason and warmseason grasses can be grown in Kentucky, although most of the state is not ideally suited to either one. Because of temperature extremes in summer and winter, developing a really good lawn may be a big challenge. Proper establishment and management techniques may differ considerably from those used in surrounding states. Still, if you know these local problems and establish your lawn correctly, a good lawn is possible and should not be expensive to maintain.

Which Grass Should You Select?

Although we have many high-quality Kentucky bluegrass lawns, tall fescue is the best adapted grass for Kentucky. Problem lawns with shade, poor soil, or heavy traffic and Western Kentucky lawns should almost always be established with tall fescue. Fine (red) fescue and perennial ryegrass also have some limited uses in lawns.

Lawns can also be established with warm-season grasses such as bermudagrass or zoysiagrass. Although these grasses remain dormant (brown) for six to seven months every year, they are drought and pest tolerant.

More information on varieties and grass selection can be obtained from your local county Extension agent. Ask for a copy of Cooperative Extension publication *Selecting the Right Grass for Your Kentucky Lawn* (AGR-52).

An area of lawn that receives little or no direct sun may be established best with an ornamental ground cover, not grass.

The best adapted grasses for semi-shaded lawns are the tall fescues and fine fescues.

When to Establish Your Lawn

Don't make the mistake of establishing your lawn at the wrong time. Only certain periods each year have favorable temperature, moisture, and minimum competition from weeds.

The best time to seed Kentucky bluegrass, fescue, or perennial ryegrass is from mid-August to late September. The second best time is from mid-February to mid-March and not later than mid-April. Due to competition from weeds and moisture stress, seedings made from late spring to midsummer seldom are successful.

Sod of Kentucky bluegrass and tall fescue can be installed almost anytime. However, during extremely hot and dry summers, it is best to delay sodding until the weather improves.

The improved strains of bermudagrass and zoysiagrass should be established during May or June, after the soil is warm.

How to Prepare Your Soil

Never underestimate the importance of soil preparation. Consider the following:

Grading

Soil conditions are very poor on many lawn sites because the lawn was not a major consideration when construction began. Ideally, the topsoil should be stockpiled to the corner of the lot when initial grading is done so it will not be destroyed or covered by the foundation or basement subsoil.

After the house is finished, the building debris should be removed from the entire lawn area, and the subgrade should be sloped away from the house to reduce the possibility of water entering the basement. After the subgrade has been established, the stockpiled topsoil can be respread over the entire lawn. With 4-6 inches of good topsoil, establishing and maintaining your lawn can be a pleasure rather than a nightmare.

Soil Improvements

What if topsoil is not available? Buying topsoil is not usually recommended, for two reasons:

- It is very difficult to purchase good topsoil. Frequently, you get heavy clay or rocky soil, and often it is seriously infested with weed seed.
- Well-adapted species such as tall fescue may be grown on the most difficult soils. In fact, an excellent tall fescue turf can be maintained on heavy clay or sandy soils if the lawn can be irrigated during periods of summer drought.

Adding large quantities of organic matter is the best method for improving a poor soil. Peat moss; well-decomposed sawdust; well-rotted, weed-free manure; and sewage sludge or any organic compost will improve soil that is either too sandy or contains too much clay. Use 2-3 cubic yards of organic matter for each 1,000 square feet of lawn area. Spread it evenly over the surface, and before seeding, thoroughly rototill or disk it into the upper 4-6 inches of soil.

If a building site has decent topsoil, be sure to save it. After final grading of the lawn site, respread the topsoil over the lawn prior to establishing the grass.

Be sure to remove building debris—don't bury it and cause future problems.

Lime and Fertilizer

Have your soil tested to determine its exact lime and fertilizer needs. Your local Extension agent can provide you with soil cartons and other necessary information.

For less than three dollars, you can obtain a soil analysis in two weeks that could save you many dollars and hours of futile maintenance. Stop by your local Extension office for a soil sample box and information sheet

If a soil test cannot be made, you should apply approximately 80 pounds of ground limestone per 1,000 square feet of lawn area. Also apply one of the following fertilizers: 30 pounds per 1,000 square feet of 5-10-5, 25 pounds per 1,000 square feet of 10-10-10, or 20 pounds per 1,000 square feet of 5-20-20. Work all lime and fertilizer into the top 4-6 inches of soil before seeding.

Final Soil Preparation

A newly graded lawn should be allowed to settle before planting. Two or three good rains or irrigations will help the settling. Puddles of water that form during a rain or irrigation indicate low spots that should be filled or drained prior to planting. Good surface drainage is a must!

The final seedbed should be firm and free of large clods, rocks, and discarded building materials.

Seedbed preparation is similar regardless of which planting method is used on a new lawn.

Seed or Sod?

Kentucky bluegrass and tall fescue lawns are either seeded or sodded.

Should you seed or sod? Initially, seeding a lawn is less expensive, but getting an established lawn may take a month or longer with seed than it does with sod. Also, the risk of serious erosion is minimized with sod.

In addition, when you use quality seed or quality sod, you have little chance of introducing troublesome weeds. Even though many weed seeds are already present in your soil, quality sod will impede growth of these weeds.

Finally, a sodded lawn is immediately attractive and somewhat serviceable. Mud is not tracked into the home, sidewalks can be kept clean, and it is easy to maintain other newly planted landscape plants.

How to Seed

1. Seeding is usually done with a rotary seeder or the usual droptype seed and fertilizer spreader. To determine the proper seeding rates, ask for a copy of Cooperative Extension publication *Selecting the Right Grass for Your Kentucky Lawn* (AGR-52).
2. For uniform distribution, divide the seed into two equal lots. The second lot should be seeded at right angles to the first.
3. Cover the seed by raking lightly or rolling with a water-ballast roller.
4. Mulch the area with clean straw or other suitable material. The mulch covering should be thin enough to expose about 50 percent of the soil surface, which means using about one bale of straw per 1,000 square feet of area.
5. Water frequently, especially if you do not use a mulch. Keep the soil surface moist until the seedlings become established.
6. For weed control, ask your county Extension agent for Cooperative Extension publication *Weed Control Recommendations for Kentucky Bluegrass and Tall Fescue Lawns and Recreational Turf* (AGR-78).

Rolling a newly seeded or newly sodded lawn helps improve soil contact and moisture retention.

Seed in two directions and then lightly rake to ensure good coverage and seed placement.

Don't mulch too much. The mulching is just right when you can still see about 50 percent of the soil surface.

How to Install Sod

Installing sod is an art. The better the sod quality, the easier it is to transport and install. Quality sod is light, does not tear apart easily, and generates a root system quickly. Before ordering or obtaining sod, be sure you are prepared to install it. Sod is perishable and should not remain on the pallet or stack longer than 36 hours.

To install sod:

1. Inspect the sod carefully. If you see mildew or distinct yellowing of the leaves, its quality is already diminished.
2. Make a line lengthwise through your lawn.

3. Lay the sod on either side of the line with the ends staggered, as when laying bricks.
4. Use a sharpened concrete trowel or shovel to cut pieces and to tightly force the sod into place. You can also use the trowel or shovel to level small depressions.
5. Immediately after the sod is laid, you may use a water ballast roller to increase sod-soil contact.
6. After an area of the lawn has been completed, irrigate the sod and surface soil to the saturation point. Then, keep the sod moist until it is well rooted in the underlying soil.

Sodding a lawn or a small damaged area is a quick way toward an aesthetic lawn.

Sprigging or Plugging

Improved strains of bermudagrass and zoysiagrass are usually planted from existing vegetative material—either sod, sprigs, or plugs. Vegetative planting using sprigs is the common method for establishing high quality bermudagrass. Zoysiagrass is most frequently plugged. The plugs are approximately 2 inches in diameter, with 2 inches of soil.

Sprigs are live plant stems, usually 1 to 4 inches long. One bushel of sprigs is approximately equal to 1 square yard of sod. You can buy sprigs by the bushel or buy sod and then shred the sod into sprigs with a soil shredder or tear the sod apart by hand.

Planting sprigs

1. Either broadcast sprigs over the lawn and cover them lightly with soil *or* plant (press) them individually into the soil on 6-to-12 inch centers. Properly planted, an individual sprig should have one end about 2 inches below the soil surface and the other end above the soil surface so that a node or joint with some leaves extends above ground.
2. Keep the soil wet until they are well established.

Planting plugs

1. Fit plugs tightly into prepared holes. These holes can be made with a zoysia plugger—a sharp tube that can extract a soil core that is the same size as the zoysia plug. In order to force the tube into the soil, good soil moisture is required.
2. Tamp plugs firmly into place by stepping on each one.
3. Keep plugs moist until they are well established.

Caring for New Lawns

Moisture is probably the most important consideration immediately after planting. Regardless of which establishment method you use, keep the soil moist for two to three weeks.

Don't be afraid to mow a new lawn. After the turf begins to grow, mow at recommended heights: 2 to 2½

inches for bluegrass and fescue and about $\frac{3}{4}$ inch for bermudagrass and zoysiagrass. By mowing early and not letting excessive grass accumulate, the texture will be finer, many upright weeds will be killed, the turf will become more dense, and lateral spread will increase.

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