



Sodding a New Lawn

Sodding is the quickest way to establish a new turf area around new construction or to repair damaged lawns. While spring and fall are the preferable sodding times for cool-season grasses, sod can be established whenever the ground is not frozen or snow-covered. This publication provides homeowners with an overview of items to consider when establishing a new lawn and steps to take for best results.

Benefits of sod

Sodding provides immediate turf for lawns and is an excellent soil erosion control on slopes. There are three important things to consider when establishing a new lawn using sod: 1) turfgrass selection; 2) site preparation; and 3) time frame of establishment.

The advantages of sodding a lawn are rapid establishment, uniformity and a relatively weed-free beginning. When correctly laid on the soil, sod can reduce and prevent weed seeds from growing through the transplanted sod layer. Sod can be laid anytime during the growing season (early spring to late fall) in contrast to seeding which generally is only advised between mid-August to late-September. Sodding also reduces environmental concerns of soil erosion especially on sloped sites. The disadvantages of using sod for lawns are higher costs and limited options on cultivar or species selection compared to conventional grass seed.

Installing sod is usually a three-phase process. The first phase involves proper preparation of the site. The second phase is installation of the sod. The final phase is the management of the sod after it is installed.

Site preparation

Site preparation is the most important phase when establishing turf from sod or seed. After grass is established, little can be done to correct problems on the site. The proper groundwork will simplify maintenance for years to come and ensure healthier turf stands for both methods. However, soil preparation is often overlooked in the sodding process and can lead to future issues.

Follow these steps to prepare site. The first step is preparing the soil. For a new lawn, this begins with removing all construction debris from the site. Proper grading of the area is the next step. When possible, stockpile the topsoil and then grade the area to slope away from structures using a slope of at least 1% to 20% to help with drainage. Be sure to prevent low areas where standing water may collect.

After the land is properly graded, cultivate the soil 6–8 inches deep. This helps alleviate soil compaction that occurred during construction. Spread stockpiled topsoil back on the site to a depth of six or more inches. Tilling two inches of the topsoil into the upper two inches of the subsoil is a standard practice and helps prevent the formation of soil layers that may interfere with water drainage. When the topsoil is spread on the site, allow the area to settle before establishing the final grade.

The final grade should be firm enough to prevent footprints more than one-half inch deep. Several rainfalls will help settle the soil. Rake the seedbed to give a 1/4–1/2 inch deep, loose, granular soil.

A soil test should be conducted after the final grade has been established to determine if sufficient nutrients are available in the soil. Soil tests provide valuable information on the nutrient requirements of a soil at a modest cost. Samples can be tested at Iowa State University's Soil and Plant Analysis Laboratory. Soil analysis information and the submission form can be found at <http://soiltesting.agron.iastate.edu/analyses/soil.html>.

The test report will indicate the pH, phosphorus and potassium levels. If necessary, broadcast fertilizer according to soil test recommendation and then till soil to incorporate the fertilizer to a depth of 4–6 inches.

Do not till the area when the soil is wet. Determine if the soil is too wet by taking a handful of soil and forming a ball in your fist. If it retains its shape when pressed with the thumb, the soil is too wet. If the ball crumbles, the soil is ready to till. Be sure not to over-till the soil, which will destroy the structure. Rake the area to finish grade or establish a fine, topsoil surface prior to seeding. Light rolling with a lawn roller will indicate any low spots or irregularities in the seedbed.

The soil of the sod should be similar to the soil on the area where it is to be laid. Incompatible soil types can result in poor rooting of the sod.

Sod installation

When selecting sod, look for a sod company that fits your budget and lawn maintenance needs. Plan ahead and ask questions such as when the sod will be cut and installed; both can affect the sod's quality. One pallet of slab sod usually holds about 50 square yards. Slabs are most often installed in smaller landscapes and in irregularly shaped areas. Sod can also be distributed in big rolls. Big-roll sod is harvested in rolls 24, 30, or 48 inches wide and up to 100 feet long, and is often installed in large landscapes that have very few obstructions.

If the soil is dry and temperatures are hot, it is a good idea to lightly moisten the soil just before the sod is placed. The light watering should just moisten the surface without causing muddy conditions.



Figure 1. Stagger sod placement as if laying bricks.

Lay sod pieces so the ends are staggered as if laying bricks (fig. 1). This prevents long-lined strips across the turf caused by slow root establishment at the jointing points.

Be sure the edges of the sod are in contact with each other. Avoid overlapping or stretching the sod. Overlapping creates an uneven appearance to the lawn and gaps will develop when stretched sod begins to dry. When gaps or seams are left open, weeds such as crabgrass and goose grass may quickly emerge in these areas of poorly laid sod (fig. 2).



Figure 2. When poorly laid, weeds can grow in the gaps between the sod strips.

On slopes, start laying the sod strips from the lowest part of the incline up toward the higher elevation of ground or building. On severe slopes greater than 10%, it may be necessary to peg the sod strips with wooden

stakes or sod staples to prevent sliding (fig. 3). Two to three stakes, 6–8 inches in length, per sod strip are usually adequate to hold the strip in place. Place one stake at each end and one in the center. Drive stakes through the sod vertically near the top edge of the strip after it is in place. The stakes can be removed as soon as rooting takes place—usually within two weeks.



Figure 3. Staples used for pegging the sod on areas that have a greater than 10% slope. Pink or orange staples are preferred to reduce the chance of blending with the grass during mowing.



Figure 4. Rolling the newly laid sod will remove air pockets under the sod strips and increase rooting by pressing the roots firmly into the soil.

After installation, roll newly laid sod with a lawn roller to remove air pockets under the sod strips and to press the roots firmly into the soil. If air pockets are not removed, they can potentially result in drying of the root system, causing dead spots on the surface. If the roller is too heavy, it may cause sliding of the sod strips or soil compaction. In hot temperatures, above 85°F, lightly water the sod before rolling. This helps hold the sod in place until adequate moisture can be applied. Thoroughly water all of the sod immediately after rolling. Be sure water penetrates the sod pieces and moistens the soil 6–8 inches deep. A common mistake is to wet the surface without penetration into the soil. Simply pull back a corner on a few pieces of sod to check that the underlying soil is thoroughly moistened.

Kentucky bluegrass is the primary cool-season species used for sod production because of its rhizome system and excellent sod-forming characteristics. The demand for tall fescue has increased dramatically over the last few years. Most of the tall fescue sod, at the time of this publication, has been netted to provide strength during development. However, newer tall fescue cultivars produce enough rhizomes to be commercially sold without a net. Perennial ryegrass and fine fescue are seldom used in sod production unless they are mixed with Kentucky bluegrass. Zoysiagrass is the primary warm species used in Iowa and has similar characteristics of forming dense sod because of its stolon production.

Refer to the Iowa State University Extension and Outreach publication, [“Selecting a Grass Species for Iowa Lawns” \(HORT 3023\)](#), when considering which species is best for your lawn.

Post installation care

Sod requires daily morning watering for the first 7–10 days. During warm weather, an additional afternoon watering may be required. Apply enough water each time so the sod and soil remain moist and cool. Sod will root to the soil in about 10–14 days. Watering should be deeper and less frequent at this point to encourage a deeper, healthier root system. Do not overwater because the new sod will not root properly if it is kept saturated.

Begin mowing sod when the grass starts to grow, usually 10–14 days after installation. To reduce mowing shock and the potential for scalping, begin mowing Kentucky bluegrass at a 2-inch cutting height when plants reach an average height of three inches. The recommended mowing height for bluegrass sod is 2–2 1/2 inches during cool weather and 2 1/2–3 inches during summer stress periods. For best results, never cut more than one-third of the leaf tissue at any one mowing, this usually requires weekly mowing. For more information, see [“Mowing Your Lawn” \(PM 1213\)](#).



After the sod is rooted, follow the suggested fertilization program for the selected grass species and the intended use of the lawn area. Additional nitrogen can be added after the lawn is mowed the first time. The application of a one-half pound of nitrogen, 3–4 weeks after sodding is a standard practice. It is important to note that nitrogen should only be applied when the grass is actively growing.

In optimal conditions, it will take 1–3 months for the sod to become rooted and be treated as an established turfgrass. Also, this would be the time when herbicides could first be used on the newly rooted grass.

Additional information on lawn care is available from the Iowa State turfgrass publications at <https://store.extension.iastate.edu/Topic/Yard-and-Garden/Lawn-Shrubs-Trees>.

- [“Weed Control in Home Lawns” \(PM 930\)](#)
- [“Lawn Fertilization” \(PM 1057\)](#)
- [“Establishing a Lawn from Seed” \(PM 1072\)](#)
- [“Turfgrass Management Calendar: Kentucky Bluegrass Lawns” \(PM 1063\)](#)
- [“Understanding Thatch in the Home Lawn” \(PM 1755\)](#)
- [“Fall Tips to Ensure a Healthy Green Yard in the Spring” \(HORT 3021\)](#)

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