



Nine Steps for Establishing a New Lawn Using Sod

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Sodding is the quickest and most reliable means of establishing a lawn. Sod covers the soil completely and virtually eliminates evaporation of water from the soil and loss of soil by erosion. Sod is usually grown close to the market area, so sod types available in your community are likely to be those that will grow best where you are. Most of the sod grown in Michigan is a blend of Kentucky bluegrass cultivars.

Sod is ready for planting when it is 12 to 14 months old. It needs to be mature enough so the pieces will hold together. Thinly cut sod will root faster than sod with a lot of soil beneath the foliage and thin thatch layer. Moving soil with the sod makes it heavy and more prone to tear. Also, the soil may contain more silt and clay than that in the planting bed. If so, this layer will hinder the infiltration of water down into the root zone. Sod is usually delivered in small or large rolls laid on pallets.



Sod is produced on both organic and mineral soils and will establish well on either clay or loam soils. If possible, however, try to find sod grown on the same soil type as that at the installation site. This helps prevent the formation of soil layers of different densities, which may reduce rooting. Sod grown on organic soil is lighter. This decreased weight may be important if the sod pieces have to be carried long distances.

- 1- Measure the area to be sodded.
- 2- Soil test the area to be sodded.
- 3- Prepare the soil for sodding.
- 4- Incorporate organic matter.
- 5- Apply and incorporate fertilizer and lime (if needed).
- 6- Rake and roll the surface to be planted.
- 7- Install sod.
- 8- Irrigate the newly sodded area.
- 9- Mow after establishment.

Sod installation is often preferable to seeding:

- For areas that need to be quickly functional.
- If there is a need for quick, tangible quality or immediate property value increase.
- When immediate erosion control is required.
- When the time frame is not suitable for establishing a lawn by seed.

Establishing a lawn using sod has both advantages and disadvantages.

Advantages:

- A high quality turf is available for use much more quickly than with other methods and there is less investment of time and work by the homeowner.
- Homeowners installing sod lawns have a greater rate of success and face fewer weed and other problems than those using other methods.
- Sod can be installed almost anytime the ground isn't frozen from mid-April through the end of October. Avoid installing sod so late in the fall that the root system doesn't have time to penetrate the soil adequately before the soil freezes.
- Sod provides immediate erosion control on a steep slope or terrace.

Disadvantages:

- Higher initial cost of sodding.
- The choice of turfgrass species and cultivars is limited. For example, if shade is a problem and shade-tolerant sod is not available, you should overseed the sod after it has been established with a shade-tolerant grass such as fine-leaved fescue.

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Steps for successful sod establishment:

Step 1. Measurements: Measure the lawn area where sod is to be installed. Make a sketch including all measurements of the area where you plan to establish your lawn, including the dimensions of sidewalks, parking areas, shrub beds and buildings — they will influence the total amount of sod you need to order. Once you have all of the measurements, calculate the total square footage of the lawn area. If you are not sure how to do this, take your drawing and measurements to a local sod supplier. The supplier can help you calculate just how much sod you will need. Sod is sold in either square feet or square yards.

Step 2. Soil testing: Soil testing is important to determine the nutrient status and pH of your soil. Samples should be taken well before you want to install the sod. Soil test mailing kits may be obtained from your county Extension office at a nominal fee. These kits provide the necessary information on how to take soil samples properly and include a mailing container to forward the sample to the Michigan State University Soil and Plant Nutrient Laboratory. Start by taking several composite samples (at least eight), using a shovel or spade to cut 1 inch slices of soil from the surface to a depth of

4 inches from scattered parts of the proposed lawn area. Combine the samples in a clean bucket and remove any plant parts present in the sample, mix well and send 1 cup of the mixture to:

Soil and Plant Nutrient Laboratory, 81 Plant and Soil Sciences Building, Michigan State University, East Lansing, Michigan 48824.

Recommendations for liming and fertilizer will be returned to you along with the laboratory results.

Step 3: Preparing the soil: When building a new home, keep your topsoil in a pile off to the side. After the building is complete, spread it evenly over the lawn area. Spreading topsoil and final grading may be started once the soil is dry enough to be worked without sticking to implements or becoming compacted. Remove stones, roots, large soil clods and other material. The thickness of the topsoil should be uniform on slopes and in level areas alike. The final grade or slope of the lawn should be away from the building, and good surface drainage should be evident. Normally, a fall of 1 foot every 50 feet will keep excess water from standing on the surface of the lawn.

If available topsoil is not adequate to level the soil surface or provide an adequate root zone (at least 4 inches), additional topsoil can be purchased. Specify that the purchased topsoil be screened to eliminate weedy perennial grasses and stones. Try to match the texture of the additional topsoil as closely as possible to the texture of the soil on the site.

If you are renovating an existing lawn or if grass or broadleaved weeds are present, use a suitable systemic herbicide (weed killer) such as glyphosate, and repeat the treatment as necessary before installing the sod. Rototill the soil to a depth of 4 to 6 inches. After tilling, rake the soil to remove any plant debris and eliminate drainage problems (slope away from house, garage, etc.) and low areas as listed in previous steps.

If topsoil or organic matter isn't added, the existing subsoil should be tilled to a depth of at least 6 inches to increase water and root penetration. Tilling to this depth is usually not possible with small, walk-behind tillers, so a tractor-mounted tiller should be used. Avoid tilling the soil when it is excessively moist because clods will be formed. To determine if the soil is dry enough to be tilled, take a small handful from a depth of about 4 inches and squeeze lightly. If the soil cracks and starts

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to break apart after you relax your hand, it is dry enough to till.

Step 4. Adding organic matter: Organic matter can improve the soil's drainage, aeration and nutrient-holding capacity. A 2-inch or deeper layer of peat moss, manure, compost or other organic material can be applied. Use well-rotted organic matter to avoid problems with weed seeds, diseases or other factors that can inhibit turfgrass growth. Organic matter and other soil additives should be tilled into the topsoil. Hand mixing is slow, hard work and seldom results in a uniform mixture. Even distribution of organic matter in the top 4 to 6 inches of soil is very important.

Step 5. Applying lime and fertilizer: Incorporate any recommended lime or fertilizer into the top 4 inches of soil as the final grade and planting bed are prepared.



Follow the rate recommendations that came with the soil test results. In the absence of a soil test, use 10 pounds of 10-10-10 fertilizer (or its equivalent) per 1,000 square feet to supply minimal fertility. Rake

any fertilizer or lime into the top 4 inches of the soil without delay.

Step 6. Rolling the site: After raking, roll the soil with a roller weighing 200 to 300 pounds to firm the soil, or water the soil thoroughly and allow it to settle. The soil should be firm enough that someone walking on it will sink in no more than $\frac{1}{2}$ inch. If any humps or hollows appear, fill them in or rake them out until the surface is smooth. Be sure to keep the soil surface about 1 inch below the level of sidewalks or the driveway. After all soil preparation is complete and you are ready to install the sod, order your sod from a local sod retailer and ask the delivery driver to place the pallets of sod across the yard, approximating how much area each pallet will cover. This will reduce the time and distance you will have to carry each piece.

Step 7. Installing sod: All sod should be planted the day of delivery. Make sure that you have adequate labor available to plant it at once. Sod produces heat within the rolls that can cause a loss of vigor within the grass and may even kill some turf.

Do not install sod on very dry soil. The soil should be moist but not saturated to prevent new roots from being damaged by moving into dry soil.

Begin by laying strips of sod along side of the driveway or sidewalk, pushing the edges together (no overlap) tightly without stretching. Use a sharp knife, spade or machete to trim edges of sod pieces to fit the landscape. Be sure to stagger the strips so that the ends join in the middle of the pieces on each side, much in the same way that bricks are placed in a wall (running bond pattern) to avoid continuous seams. Do not place small pieces of sod along outside edges — they will dry out and die quickly. When laying sod on a slope, lay the rolls across the slope and stake them in place if necessary. Start at the bottom of the slope and work up so that you can push the sod strips tightly together. This will permit the long side juncture between two strips of sod to trap water as it runs down the slope. Some shrinkage of sod may be expected, so this is the time to make certain that no cracks are visible. If large sheets of plywood are available, place these over the sod where work is under way to prevent scuffing of newly laid pieces.

When sod installation is complete, check to see that there are no visible cracks. If cracks are found, fill them with soil. Lightly roll the new lawn to settle the sod in contact with the soil beneath. This must be done with care to avoid dislodging the sod strips.

Step 8. Watering: Begin watering sod within 30 minutes of installation. Sod should be watered frequently with small amounts of water to encourage rooting. Apply water at least once per day during the first two weeks after installation. Use enough water to keep the sod and the soil beneath it moist but not soaking wet throughout the day. Be extra careful during hot, dry and windy weather — newly installed sod can dry out quickly. As more and more roots penetrate the soil (carefully lift the edges of strips in several locations to check), decrease the frequency of watering but increase the total amount of water applied each time to encourage a deep and healthy root system. Hand watering usually allows you to regulate the amount of water applied better than using a mechanical sprinkler.

Step 9. Mowing and applying fertilizer: Until a new lawn has a fully established root system, avoid heavy use. Mow as soon as the leaf blades exceed 4 inches in height. Set your mower to cut at a height of 3 to $3\frac{1}{2}$ inches and make sure that you use a newly sharpened blade. After 4 to 6 weeks of growth, fertilize the sod

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according to the soil test recommendations. In the absence of a soil test, apply 1 pound of actual nitrogen per 1,000 square feet (10 pounds of 10-10-10 or equivalent). Apply ½ inch of water after fertilizing to wash the fertilizer particles off the leaf blades. Remember to watch for insects, diseases or other problems.

On heavy clay soils, deep core aeration 3 to 6 months after installation will enhance root penetration into the soil. This core aeration can be repeated every other year.

Sources of Sod

The following list of sod companies is included to help the reader who may not be able to find sources of sod — it is not intended as a recommendation of these companies, or as an inclusive/exclusive listing.

Huggett Sod Farm, inc.
4114 E. Marlette
Marlette, MI 48453
800/432-2763

Van Agen Sod Farm, Inc.
10549 S. Bancroft Rd.
Bancroft, MI 48414
989/634-5658

Beck Sod Farm, Inc.
976 W. Ridley Rd.
Palms, MI 48465
989/864-3549

Kogelmann Creek-Side Sod Farm, Inc.
21050 26 Mile Rd.
Macomb, MI 48174
586/749-3551

Huron Sod Farms, Inc.
30877 Pennsylvania Rd.
Romulus, MI 48174
734/941-2730

Halmich Sod Farm
6503 Park Lake Road
E. Lansing, MI 48823
517/332-5529

McLeod Sod Farm
6149 Davis Hwy.
Grand Ledge, MI 48837
517/627-2820

DeBuck Sod Farm, Inc.
12163 E. Lippincott Blvd.
Davison, MI 48423
810/653-2201

New Lawn Sod Farm, Inc
50240 Martz Rd.
Belleville, MI 48111
734/481-0022

Ludema & Boyink Sod Farm LLC
6312 E. Clarksville Rd.
Clarksville, MI 48815
616/693-2287

Other Publications in this Series

(The following publications and other materials on lawns, turfgrasses and related topics are available online at: www.web2.msue.msu.edu/bulletins/intro.cfm or from your MSU county Extension office — look under “Government, County” in your phone book.)

E-2910, Establishing a New Lawn Using Seed

E-2912, Turfgrass Species and Cultivar Selection

E-2913, Calendar for Lawn Care

E-2917, Performance of Bentgrass Cultivars and Selection Under Putting Green and Fairway Conditions (for golf courses)

E-2923, Performance of Tall Fescue Turfgrass Cultivars for 2002-03

E-2924, Performance of Kentucky Bluegrass Cultivars in Michigan: 2001-2002

For more materials available online, visit the MSU Extension Web site at: <http://web2.msue.msu.edu/bulletins/intro.cfm>



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