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Establishing a Lawn From Sod

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Although most turfgrass areas are established by seeding, sod offers the visual appeal of an "instant lawn." Additional benefits of sod include utilizing the lawn more quickly, reducing the amount of mud and dirt tracked into the house, immediate erosion control, and establishing a lawn during less-than-optimal seeding times. Like seeded lawns, sodded lawns need special attention before and after establishment. Using proper establishment procedures and post-establishment care can help to ensure success in producing a healthy, beautiful lawn.

Site Preparation

Thorough site preparation is sometimes neglected; it is the most important factor determining the success of a sodded lawn. Site preparation for a sodded lawn is identical to that for a seeded lawn. Site preparations should begin with the removal of construction debris and rocks from the area followed by establishing a rough grade. Rough grade the area so that contours ensure proper surface drainage away from buildings without low spots that could result in puddling. If significant grade changes are required, it may be necessary to stockpile the topsoil, grade the subsoil, rototill the subsoil to relieve compaction and spread the topsoil back out to a minimum depth of 4 inches. Once the rough grade is achieved, a soil sample should be taken from the site. A soil test will determine if nutrient deficiencies or improper pH levels exist. Correct any deficiencies in nutrients or pH levels by following the recommendations on the soil test report and mix any required amendments throughout the topsoil. For more information, see AY-18, Soil Testing For Lawns. The soil should then be allowed to settle. Heavy rains and/or irrigation can hasten settling. Just prior to laying the sod, rake the area to the finish grade.

After the area is at finish grade, a starter fertilizer should be applied to encourage root

development. Do not use any fertilizer that contains a herbicide, because most herbicides will restrict the root development of new sod. Choose a starter fertilizer that is high in phosphorus, but low in nitrogen and potassium. This can help prevent burning the roots and over-stimulating topgrowth while still promoting root growth. Nitrogen is listed as the first number in the analysis on the fertilizer bag, phosphorus the second, and potassium the third. For instance a 16-22-8 contains 16% N and 22% P_2O_5 and 8% K_2O by weight. Apply the fertilizer according to the label at 1.0 lb. P_2O_5 /1000 ft².

Sod Selection and Installation

Some things to consider when purchasing sod include thickness, soil type, weed content, and freshness. Sod is generally cut to a depth of 0.25 to 0.5 inches, and properly harvested sod should contain surprisingly little soil. Thinner sod is easier to ship and handle and will also root faster. However, thin sod requires more frequent irrigation during establishment. Choose sod that contains soil similar to the soil found on the site. This will help avoid creating layers that could reduce rooting depth and water flow. Weed content is an obvious consideration. If possible, ask to see the area from where the sod will be harvested. This will also give some idea of the health of the sod. Finally, the sod should be fresh when it is delivered to the site and it should be laid within 24 hours after harvesting.

It is very important not to let the sod get too dry. If you cannot lay the sod immediately after delivery, you may need to sprinkle it with water to keep the outer rolls moist. Also, lightly moisten the soil where the sod is to be laid, but avoid over-watering the work area. Begin laying the sod in a brick-like pattern so that the ends are staggered (Figure 1). This will reduce the number of long seams. The edges of the sod should be in contact with each other. Exposed edges can dry quickly



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and die. It is also important to avoid stretching or overlapping the sod. A piece of sod that has been stretched is likely to shrink latter forming gaps and exposed edges. If there is a slope, start at the bottom and run the sod perpendicular to the slope. A steep slope (10% or more) may require pegging or stapling the sod in place. Wooden pegs can be pulled out late after the sod is rooted down, but biodegradable sod staples do not have to be removed.

The final steps in sod installation are to lightly roll and then thoroughly water the sod. Rolling is not meant to remove underlying irregularities in the soil but to insure good sod-soil contact and remove any air pockets without compacting the soil. Thoroughly water the sod immediately after rolling. Keep traffic off the sod until it is well-established.

Post-Installation Care

Watering after installation is a priority. During the first two weeks sod requires daily watering. During warm weather, sod may need to be lightly watered during mid- and late afternoon hours when water use and evaporation is greatest. After 7 to 10 days, check for root development by firmly grasping the grass blades with both hands and lifting vertically. When the sod resists being lifted, usually in 10 to 14 days during optimum weather conditions, the frequency of irrigation should be reduced but the amount of water applied during each irrigation cycle should be increased. Schedule irrigation so the lawn becomes firm enough to mow between waterings. Begin mowing the area as topgrowth develops, but keep the traffic level as low as possible. The recommended height for Kentucky bluegrass is 3.0 inches or more. For best results, mow often enough so that no more than 1/3 of the grass blade is removed at each mowing.

A lawn sodded in the spring or summer will not survive droughty conditions well the first year. It is important to provide proper irrigation until the turfgrass can develop a more extensive root system in the fall when fertilization will boost the root system's development. In mid-September and at least four weeks after installing the sod, apply 1.0 lb. N/1000 ft². An application of 1.0 lb. N/1000 ft² should be made in early October and

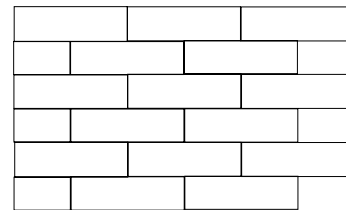


Figure 1. Lay sod in a brick pattern to reduce long seams.

again in mid-November to encourage rooting. For additional information on irrigation and fertility, see AY-7, Irrigation Practices for Homelawns and AY-22, Fertilizing Established Lawns.

In addition to following sound irrigation and fertilization practices, regular aerification can significantly improve turfgrass rooting. Aerification reduces soil compaction and provides channels for the roots to better penetrate the soil. This practice will also help alleviate problems due to layering caused by differences between the soil on site and the soil on which the sod was grown. Many professional lawn companies offer an aerification service, or an aerifier can be rented from a local rental agency. Newly laid sod should not be aerified until the sod is firmly rooted into the soil (2-4 months). Aerify in the spring and fall when temperatures are moderate and the grass is growing well. Use the largest diameter tines available and punch 20-40 holes per square foot (this may require 3 to 4 passes across the lawn). For more information on aerification see AY-8, Mowing, Thatching, Aerifying, and Rolling Turf.

Weeds are usually not a problem in sod, and most herbicides are not labeled for application to sod until it is well established. If annual grasses, such as crabgrass, become problematic shortly after seeding, it is better to tolerate the problem until the next spring when a preemergence herbicide can be used. Dandelion and other broadleaf weeds can be controlled with a broadleaf herbicide application in late October. More information is available in AY-9, Control of Broadleaf Weeds in Homelawns, and AY-10, Control of Crabgrass in Homelawns.

More information and mentioned publications are available at www.agry.purdue.edu/turf