

Chapter 5 - VEGETATIVE PRACTICE STANDARDS

SODDING

Definition

Permanently stabilizing areas by laying a continuous cover of grass sod.

Purpose

To prevent erosion and damage from sediment and runoff by stabilizing the soil surface with permanent vegetation where specific goals might be:

- a. to provide immediate vegetative cover of critical areas,
- b. to stabilize disturbed areas with a suitable plant material that cannot be established by seed,
- c. to stabilize drainageways and channels and other areas of concentrated flow where flow velocities will not exceed that specified for a grass lining.

Conditions Where Practice Applies

Disturbed areas which require immediate and permanent vegetative cover, or where sodding is preferred to other means of grass establishment. Locations particularly suited to stabilization with sod are:

- a. waterways and channels carrying intermittent flow at acceptable velocities,
- b. areas around drop inlets, when the drainage area has been stabilized,
- c. residential or commercial lawns and golf courses where prompt use and aesthetics are important, and
- d. steep critical areas.

Planning Considerations

Quality turf can be established with either seed or sod; site preparation for the two methods is similar. The practice of sodding for soil stabilization eliminates both the seeding and mulching operations and is a much more reliable method of producing adequate cover and sediment control. However, compared to seed, sod is more difficult to obtain, transport, and store.

Advantages of properly installed sod include:

- a. immediate erosion and dust control,
- b. nearly year-round establishment capability,

- c. less chance of failure than with seedings,
- d. freedom from weeds,
- e. rapid stabilization of surfaces for traffic areas, channel linings, or critical areas.

Sod can be laid during times of the year when seeded grasses may fail, provided there is adequate water available for irrigation in the early weeks. Irrigation is essential at all times of the year to install sod. It is initially more costly to install sod than to plant seed. However, the higher cost may be justified for specific applications where sod performs better than seed.

In waterways and channels that carry concentrated flow, properly pegged sod is preferable to seed because it provides immediate protection. Drop inlets placed in areas to be grassed can be protected from sediment by placing permanent sod strips around the inlet (Storm Drain Inlet Protection). Sod also maintains the necessary grade around the inlet.

Because sod is composed of living plants that must receive adequate care, final grading and soil preparation should be completed before sod is delivered. If left rolled or stacked, heat can build up inside the sod, causing severe damage and loss of costly plant material.

Plans and Specifications

Plans for installing sodding shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve the intended purpose.

Specifications for applying and installing sodding shall use or be in conformance with the following. Any variation from these specifications shall be approved by an engineer.

1. Choosing appropriate types of sod. The type of sod selected should be composed of plants adapted to both the site and the intended purpose. In Mississippi, these are limited to fine-turf (hybrid) Bermudagrasses, St. Augustinegrass, centipedegrass, and zoysiagrass. Species selection is primarily determined by region, availability, and intended use. Availability varies across the state and from year to year. New varieties are continually being developed and tested. A complete and current listing of sod recommendations can be obtained from suppliers or the Mississippi Cooperative Extension Service.

Quality of sod--Use only high-quality sod of known genetic origin, free of noxious weeds, disease, and insect problems. It should appear healthy and vigorous, and conform to the following specifications:

- a. Sod should be machine cut at a uniform depth of 1/2 - 2 inches (excluding shoot growth and thatch).

- b. Sod should not have been cut in excessively wet or dry weather.
 - c. Sections of sod should be a standard size as determined by the supplier, uniform, and untorn.
 - d. Sections of sod should be strong enough to support their own weight and retain their size and shape when lifted by one end.
 - e. Harvest, delivery, and installation of sod should take place within a period of 36 hours.
2. Soil preparation. Test soil to determine the exact requirements for lime and fertilizer. Soil tests may be conducted by the State soil testing lab or a reputable commercial laboratory. Information on soil testing is available from the Cooperative Extension Service. Where sodding must be planned without soil tests, the following soil amendments may be sufficient:
- a. Pulverized agricultural limestone at a rate of 2 tons/acre (100 lb/1,000 ft²)
 - b. Fertilizer at a rate of 600 lb/acre (15 lb/1,000 ft²) of 13-13-13.

Equivalent nutrients may be applied with other fertilizer formulations. These amendments should be spread evenly over the area and incorporated into the top 4-8 inches of soil by disking, harrowing, or other effective means. If topsoil is applied, follow specifications given in The Topsoiling BMP.

Prior to laying sod, clear the soil surface of trash, debris, roots, branches, stones, and clods larger than 2 inches in diameter. Fill or level low spots in order to avoid standing water. Rake or harrow the site to achieve a smooth and level final grade.

Complete soil preparation by rolling or cultipacking to firm the soil. Avoid using heavy equipment on the area, particularly when the soil is wet, as this may cause excessive compaction and make it difficult for the sod to take root.

3. Sod installation. A step-by-step procedure for installing sod is illustrated in Figure 5-9 and described below.

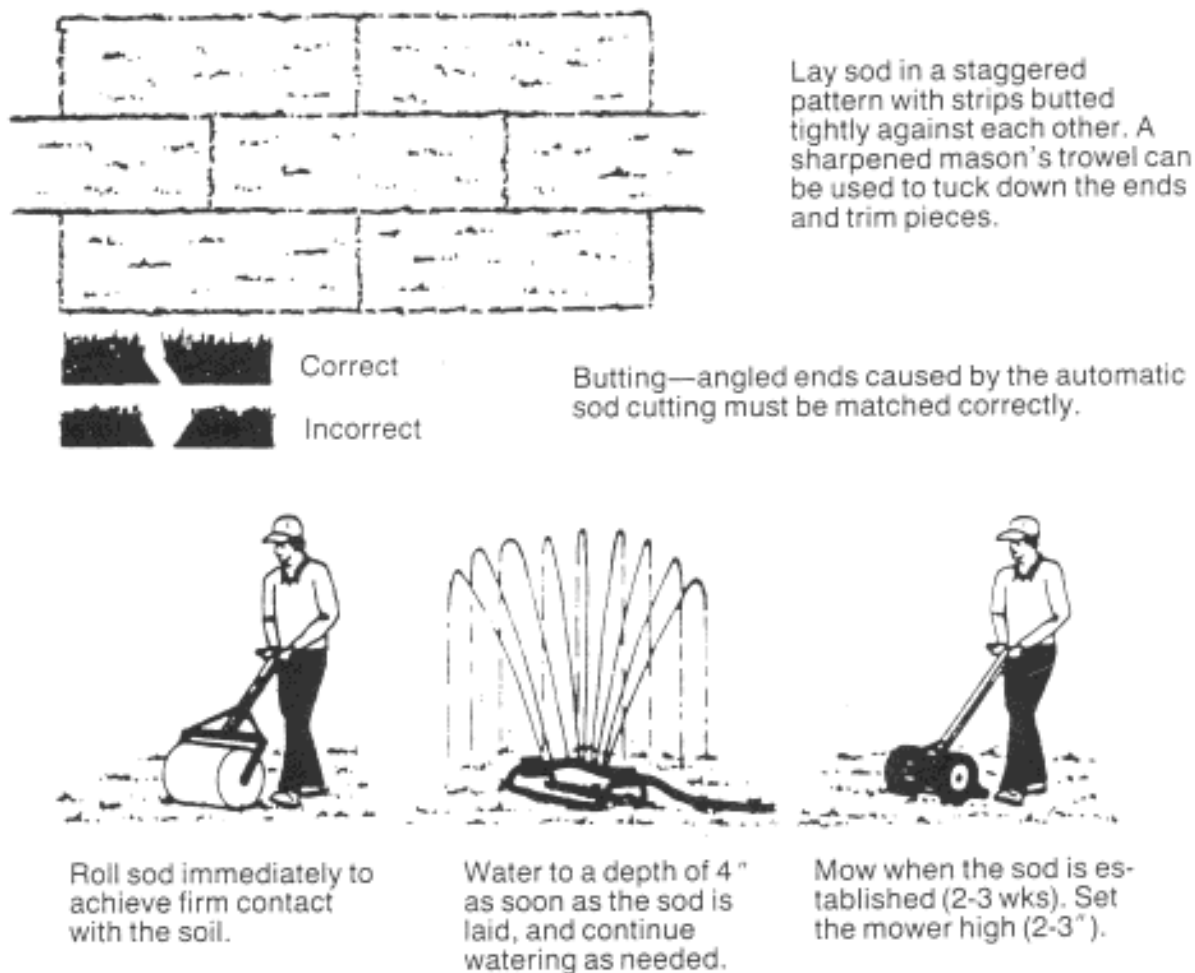


Figure 5-9 Proper installation of grass sod

- a. Moistening the sod after it is unrolled helps maintain its viability. Store it in the shade during installation.
- b. Rake the soil surface to break the crust just before laying sod. During the summer, lightly irrigate the soil immediately before laying the sod to cool the soil and reduce root burning and dieback.

Do not sod on gravel or soils that have been treated recently with sterilants or herbicides.

- d. Lay the first row of sod in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips in a brick-like pattern. Be sure that the sod is not stretched or overlapped and that all joints are butted tightly to prevent voids. Use a knife or sharp spade to trim and fit irregularly shaped areas.
 - e. Install strips of sod with their longest dimension perpendicular to the slope. On slopes 3:1 or greater, or wherever erosion may be a problem, secure sod with pegs or staples.
 - f. As sodding of clearly defined areas is completed, roll sod to provide firm contact between roots and soil.
 - g. After rolling, irrigate until the soil is wet 4 inches below the sod.
 - h. Keep sodded areas moist to a depth of 4 inches until the grass takes root. This can be determined by gently tugging on the sod--resistance indicates that rooting has occurred.
 - i. Mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks.
4. Sodded waterways. Sod provides a resilient channel lining, providing immediate protection from concentrated runoff and eliminating the need for installing mats or mulch. The following points apply to the use of sod in waterways:
- a. Properly prepare the soil. The sod type must be able to withstand the velocity of flow specified in the channel design.
 - b. Lay sod strips perpendicular to the direction of flow, with the lateral joints staggered in a brick-like pattern. Edges should butt tightly together (Figure 5-10).

Table 5-3 Characteristics of the principal lawn grasses grown as sod in Mississippi

Species or Mixture	Adaptation					Maintenance		
	Shade	Heat	Cold	Drought	Wear	Annual Fertilizer (lb N/1000 ft ²)	Mowing Height (in)	Mowing Frequency
Tall fescue	good	good	good	good	good	2.5-3.5	3	high
Hybrid Bermudagrass	poor	good	good	excel.	excel	5-6	1	high
Centipedegrass	fair	good	poor	good	poor	0.5	1	low
St. Augustinegrass	good	good	poor	good	poor	2.5	2-3	med.
Zoysiagrass	good	excel.	fair	excel.	excel	1.5	1-1½	med.

c. After rolling or tamping to create a firm contact, peg or staple individual sod strips to resist washout during establishment. Jute or other netting material may be pegged over the sod for extra protection on critical areas.

5. Maintenance. After the first week, water as necessary to maintain adequate moisture in the root zone and prevent dormancy of the sod.

Do not remove more than one-third of the shoot in any mowing. Grass height should be maintained between 2 and 3 inches unless otherwise specified.

After the first growing season, established sod requires fertilization, and may also require lime. Follow soil test recommendations when possible, or use the rates in Table 5-3.

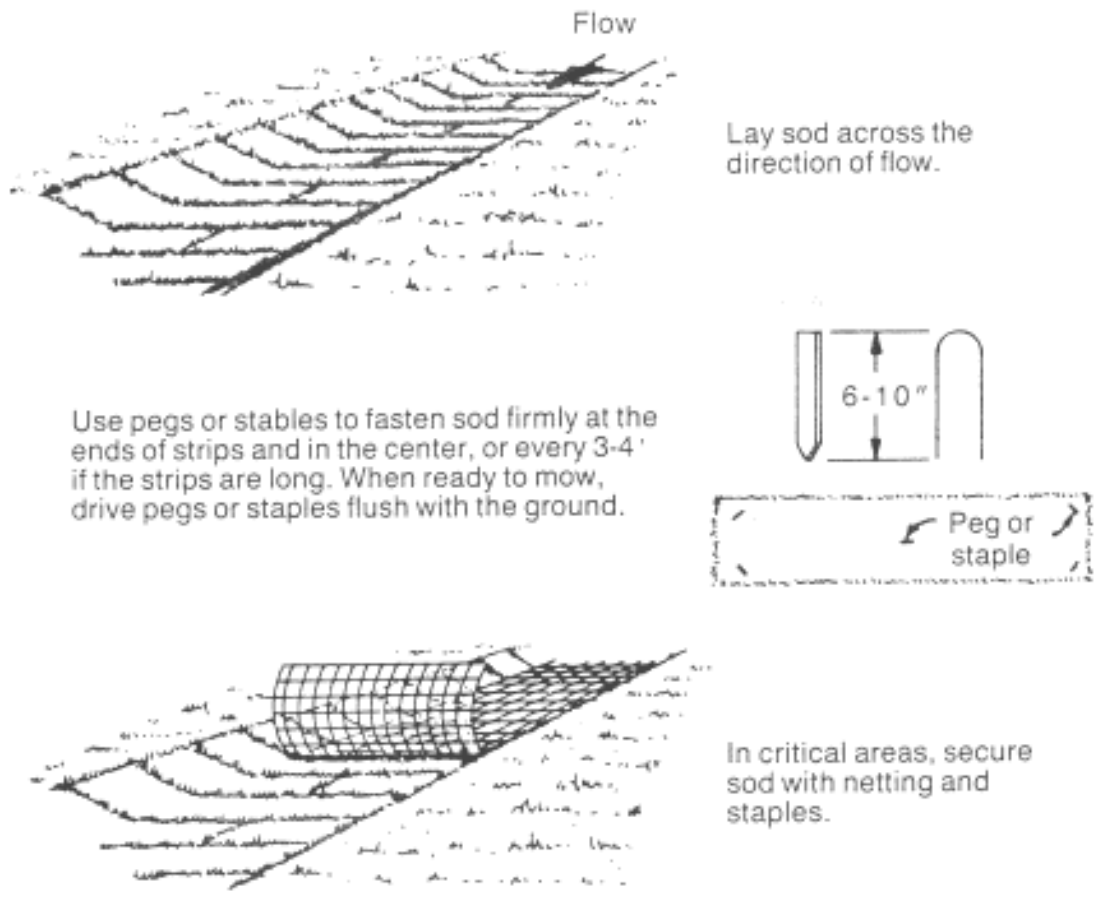


Figure 5-10 Installation of sod in waterways.