

Installation and Establishment of Turfgrasses

VIDEO SCRIPT

INTRODUCTION. The University of Georgia Cooperative Extension, in partnership with the professional landscape industry proudly presents: *Installation and Establishment of Turfgrasses*.

ATTRACTIVE LAWN. An attractive lawn is the carpet of the landscape. It adds beauty and value to an area in addition to reducing dust, glare, heat and erosion. In this training, you will learn the recommended, research-based procedure for establishing a lawn successfully from seed or sod.

SITE ANALYSIS, PANORAMA OF AREA WITH TREES TARGETED FOR TURFGRASS.

Before planting an area in turfgrass, analyze the site. Look at the changing shade patterns and the amount of sun or shade the area gets throughout the day. Light level will help determine the type of turfgrass best suited for the site. Most turfgrasses require direct sunlight to produce a desirable lawn. Make note of changes in elevation and slopes that may influence soil drainage. If turfgrass is to be planted under trees, soil disturbance should be minimized to avoid injuring tree roots and stressing the trees. Tree roots also compete with turfgrass for water and nutrients.

TAKING A SOIL SAMPLE. The first step in establishing a lawn is to take a soil sample. The results of this test tell you what kinds and amounts of lime and fertilizers are needed to properly establish and maintain a lawn. Contact your local County Extension Agent for instructions on how to collect and submit samples for testing. Turn in soil samples at least one month prior to planting. Also, contact your local utility protection service to locate and mark all underground utilities.

WORKER SPRAYING VEGETATION. Before disturbing the soil, control existing vegetation with approved herbicides and practices. Difficult to control weeds, such as bermudagrass and nutsedge, may require several applications of a non-selective herbicide. Always follow label recommendations when applying pesticides and wear appropriate protective clothing and safety gear.

REMOVING DEBRIS. Next, remove all debris, such as stones, boards, bricks and bottles from the site. Also, remove any old tree stumps and roots. If they are not removed, stumps and roots will decay and cause depressions in the lawn and may introduce some diseases. When installing a lawn on a new site, or if extensive grading is being done, push the existing topsoil to one side. Then, after the building or grading operation is completed, the topsoil should be redistributed.

WORKER RUNNING TILLER. If the soil is poorly drained or becomes packed during rough grading, it is necessary to loosen the compacted soil with a rototiller before planting. On some poorly drained soils, subsurface drain pipe may be necessary.

GRADING A SLOPE. When grading, a two percent slope away from buildings improves drainage. This is equivalent to a drop of two feet over a distance of one hundred feet. If the lot is level or if it slopes toward the building, a drainage swale helps direct surface water away from the building.

SPREADING TOPSOIL. On steep slopes or where rock outcrops exist, several inches of topsoil may be necessary over the loosened rough grade. Topsoil should have a uniform composition and should be free of rocks, weeds and other debris.

ADDING ORGANIC MATTER. Improve soil quality by adding organic matter. Use one to three cubic yards of peat moss or compost over one thousand square feet of lawn area.

INCORPORATING AMENDMENTS. Thoroughly incorporate amendments, fertilizer and lime to a depth of 4 to 6 inches. Delay final grading and mixing of fertilizer into the topsoil until just before planting time. If done too far in advance, fertilizer may leach from the soil.

WORKER HOLDING CERTIFIED SEED TAG CLOSE-UP. Once the soil is properly prepared, it is time to plant. To insure success, select high-quality seed or sod. In Georgia, the Crop Improvement Association certifies seeds and grasses are true to type and free of noxious weeds. Select grasses that are best adapted to the particular environmental conditions of the site. Consult your local County Extension Agent, seed dealer, or local turfgrass web site for more information about the different types of grasses and their cultural and environmental requirements.

PLANTING GRASS SEED. Lawn grasses are established either by seeding or by vegetative methods. Planting turfgrass from seed offers a uniform cover that is relatively inexpensive compared to sodding. Cool-season turfgrasses, such as tall fescue, ryegrass and Kentucky bluegrass are normally established by seeding. However, tall fescue and Kentucky bluegrass also can be established from sod. Plant these grasses during the fall for best results. Centipedegrass, common bermudagrass and some zoysiagrasses are warm-season grasses which may be planted from seed during the summer months.

WORKER MIXING SEED WITH GRITS. When planting extremely small seed, like centipede grass, mix the seed with a carrier, such as grits, to insure even distribution. Often, sand is used as a carrier, but differences in density between the sand and seed result in separation and an uneven distribution of the seed.

TWO WORKERS RUNNING SPREADERS IN OPPOSITE DIRECTIONS. Plant turfgrass seed using a broadcast spreader or by hydroseeding. For small areas like home lawns, broadcast spreaders work best. Once you determine the amount of seed to apply over the entire area, divide it into two equal parts and use a broadcast spreader to distribute the seed in two directions at right angles to each other. This insures a more uniform seed distribution.

COVERING THE SEED. Lightly cover newly-planted seed by hand-raking or dragging the area with a mat. This increases seed-to-soil contact and improves seed germination and survival. Seed should be covered with no more than 1/4-inch of soil. After raking or dragging the area, roll the seeded area lightly to firm the soil.

MULCHING. Next, mulch the seeded area with a light covering of weed-free straw. Mulching not only maintains soil moisture, it also prevents erosion during irrigation or rainfall. One bale of wheat straw covers about one thousand square feet. Apply mulches evenly and lightly. Properly applied mulch will decay and does not need to be removed. Grass seedlings will germinate and grow through the mulch material. Peat moss or sawdust do not make good mulches. These materials compete with the seed for water and tie up soil nitrogen as they decompose.

WATERING. As a final step, water the newly-seeded area immediately after planting and continue until the turfgrass is established. Keep the upper 1/2 inch of soil moist but not soggy by lightly irrigating, perhaps several times each day. Do not saturate the soil because excessive soil moisture encourages diseases.

WORKER PLACING HYDROSEEDING MATERIALS IN TANK. Hydroseeding involves mixing seed with water, and in some cases a mulch material, in a large tank. This mixture is sprayed over the planting area. Lime and fertilizer are often incorporated into the mixture and sprayed along with the seed.

WORKER HYDROSEEDING. The advantage of hydroseeding is that equipment does not have to travel over the seed bed. Hydroseeding is often used for seeding large areas or areas difficult to plant with conventional seeders.

WORKERS LAYING SOD. Turfgrasses are also established vegetatively by sodding, sprigging, or plugging. All warm-season grasses, including zoysiagrass, common and hybrid bermudagrass, centipede grass and St. Augustine grass, may be established vegetatively. Tall fescue and Kentucky bluegrass can also be established by sodding.

WORKER PREPARING THE SITE FOR SOD LAYING. Sodding provides the quickest method of obtaining a lawn. Sodding is desirable on steep slopes or terraces where soil erosion can be a problem. Before laying sod, prepare and fertilize the soil according to soil test recommendations. Also, inspect the grade and firm the soil with a roller. A one to two-inch trench along curbs and sidewalks prevents sod from slipping.

INSPECTING THE SOD. Prior to unloading sod, inspect it thoroughly. It should be moist, green and healthy. Sod should not remain on the pallet for more than 48 hours after harvest. When sod remains stacked for longer periods, diseases may develop and heat build-up can damage the turfgrass.

WORKERS LAYING SOD. Lay sod pieces the same way you lay brick, fitting them together as tightly as possible. As you move forward, continue to alternate the end seams and avoid stretching or tearing the sod pieces.

WORKERS KNEELING ON BOARD TO LAY SOD. If the sod or soil is wet or too soft, use a kneeling board to protect the sod. It is advisable to work from the soil side to reduce traffic on the new sod.

WORKER CUTTING SOD TO FIT AN AREA. For irregular areas, cut pieces of the sod to fill in the gaps. Trim around sprinkler heads and along curbs to provide a smooth, neat appearance. Always keep safety in mind when using knives or other sharp objects around your co-workers.

WORKER ROLLING SOD. After the sod is down, use a roller to insure good root to soil contact, then water thoroughly.

WATERING. Newly-planted turfgrass areas must be watered frequently but lightly to prevent the surface from drying out. As with seeding, keep the upper ½ inch moist during establishment. On large areas, periodic irrigation during the sod laying process also may be needed to prevent the sod from drying out. As the sod begins to take root and grow, gradually decrease the frequency of watering until the turfgrass is fully established.

FERTILIZING. After the turfgrass is established, fertilize according to soil test recommendations. Avoid applying more than one pound of actual nitrogen per 1,000 square feet in a single application. High rates of fertilizer may stunt or kill the young grass. It also encourages weed growth and over-stimulates shoot production while decreasing root production.

MOWING. Begin mowing turfgrass when it has grown 30% to 40% higher than its recommended mowing height. Before mowing sodded areas, make certain the root system is tacked or rooted into the soil. Also, be sure the soil has had time to dry or drain. Running a mower over wet soils will leave ruts

and an uneven surface. Mowing wet sod also presents a safety hazard because the mower or worker may slip on the wet grass. Mowing new grass that has been allowed to grow too tall results in an unattractive appearance and promotes unhealthy growth. Follow recommended cultural practices including proper mowing, watering and fertilization to reduce weeds, diseases and insects.

SUMMARY. Beautiful lawns don't just happen, they result from proper installation and establishment procedures. In order to produce a healthy, vigorous turfgrass, always:

- Take a soil sample.
- Prepare the soil properly, incorporating amendments and drainage, if necessary.
- Choose turfgrasses best adapted to the site.
- **Select only high-quality seed or plant material.**
- Plant seed or sod according to recommended practices.
- Maintain quality growth by watering, fertilizing and mowing correctly.
- Follow appropriate safety procedures when operating equipment or applying pesticides.

The time, effort and expense required to grow an attractive lawn will be well worth your effort.

For more information on turfgrass selection, establishment and management, visit www.georgiaturf.com or your local land grant institution's web site. Also, to learn more about job safety procedures, see other trainings in this series, including *Grounds Equipment* and *Job Safety for the Professional Landscape Employee*.

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