



Turfgrass Series

How to prepare a residential lawn before establishing turfgrass

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Grading and Drainage

In many cases, the terrain chosen for a lawn is not even. The objective of grading is to provide a relatively smooth, firm surface, which assures both a pleasant appearance and adequate drainage of surface water (Figure 1). Effective surface drainage can eliminate many potential problems in turf-grass culture. The contours of a turfgrass area should be both aesthetic and functional; they should rapidly remove excess surface water. Residential lawns should slope away from the buildings by at least 1% (that is, should descend by at least 1 ft per 100 ft of lateral distance). Depressions - areas lower than all surrounding turf - should be avoided. On Guam underground water drains are usually not needed. If needed, see turf publication describing the design of a drainage system.

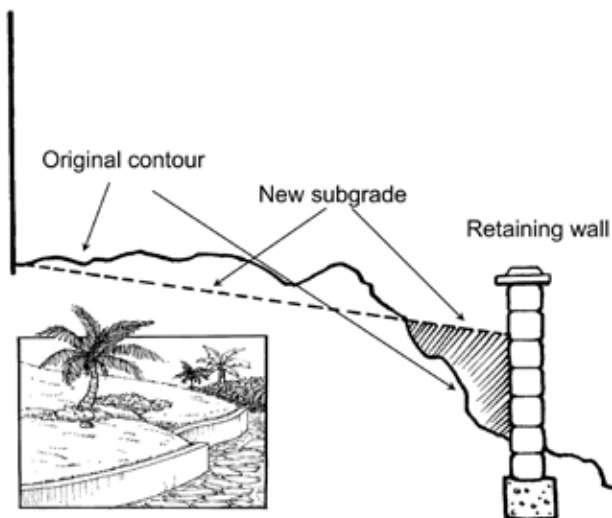


Figure 1. Contours of turfgrass area for residential lawns.

Removal of Rocks and Debris

Rocks and debris should be removed from the soil surface before cultivation (Figure 2). Unfortunately, contractors occasionally bury construction debris

such as cement, wood, and tree stumps. Buried wood eventually decays, but large pieces of metal or cement could pose an ongoing problem. If discovered during cultivation, they should be removed. A few rocks about the size of a chicken egg or smaller usually do not interfere with turf performance or maintenance and can be left in place.

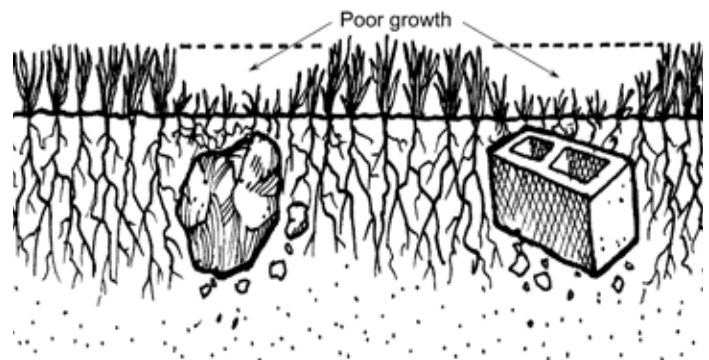


Figure 2. Rocks and debris should be removed from the soil before cultivation.

Soil Modification

If the topsoil is of poor quality and especially contains very little organic matter, then high-quality topsoil from another site should be brought in and spread over the surface in a layer at least 4-5 inches thick. A quite popular practice among homeowners - spreading only a little highly organic soil over the poor soil or even mixing it into poor soil is not recommended because the amount is too small to change soil conditions. At least 4 inches of soil substrate is required to accomplish favorable changes in soil fertility, water retention, aeration and infiltration.

Application of Fertilizer Before Planting

Fertilizer containing phosphorous (about 2-3 lbs/1000ft² of superphosphate) should be mixed with the soil before planting because phosphorus does not move with soil water and cannot be applied

later. The application of potassium and especially nitrogen should be delayed until just before planting, because when applied earlier it can promote the growth of competitive weeds.

Final Soil Preparation

Final soil preparation should take place just before planting. The goal is to prepare the best possible environment for the new turf-grass plants. The final seedbed should be firm, moist but not wet, and free of clods, stones, and other debris. If weeds have germinated since the last tillage (raking) a light application of a herbicide (1/4 of the label-recommended amount) can be used to control young seedlings and can be applied as little as several hours before planting.

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