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The Connecticut Agricultural Experiment Station
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TOP SOIL FOR HOME LAWNS

There are relatively few problems in the home landscape that need be solved by the addition of new topsoil. Many people, however, attempt to solve a wide variety of horticultural problems by adding soil that may or may not be suited for the job. Frequently they are left with a poor quality product they did not expect to get. Consumers are often left with little or no recourse.

Those considering the purchase of topsoil should take the time to determine the actual need for it. The addition of topsoil usually does not remedy problems caused by such factors as dense shade, poor fertility, insect or disease damage and poor cultural methods. Conditions such as poor drainage or compacted soil may be solved by the addition of organic matter to the existing topsoil. Even alterations in grades may be accomplished by first removing the existing topsoil, adjusting the grade with an appropriate subsoil and then replacing the topsoil.

There are problems that would benefit by the addition of new topsoil. Little or no existing topsoil may be left after the construction of new homes or additions. Lawns grow best on a minimum of 6 inches of well-drained topsoil; woody plants often require more. Additionally, some alterations in grade may require the addition of new topsoil.

Acquiring a topsoil. Acquiring a good topsoil is not always easy. Many soils are of questionable origin such as river bottom dredgings, factory wastes and construction wastes. Even good field soils may contain herbicides used for previous crops.

The best soils to use are somewhat more porous than the existing soil. The topsoil from successful farming areas are usually most suitable. When purchasing a soil it's best to learn as much as possible about the history of the soil. A visit to the soil stockpile will allow customers to inspect the soil and obtain a sample for analysis. Half pint to pint sized, representative soil samples can be submitted to the soil test labs in New Haven or Windsor. Soil fertility tests will not detect the presence of herbicides, however. Customers may want to grow a test crop of grass species and sensitive garden plants such as tomatoes, beans or cucumbers in pots prior to purchase.

Installing new topsoil. New topsoil installed over existing landscapes such as lawns and plantings will usually not be successful. The best method would be to first kill the existing plant material and either remove it or incorporate it into the existing soil. Any adjustments in grade should be made prior to installing the new soil. To avoid an interface between soils that may result in a water barrier, it's best to incorporate half of the new soil with the existing soil. This forms a transition zone between the two soils. The other half of the soil can be placed on top of the transition zone and incorporated. The total depth of new soil installed should be at least 6 inches. It's important to install a uniform depth throughout the entire area to be treated to avoid inconsistency in growth.

Coping with low quality topsoil. Many homeowners are faced with the prospect of using purchased topsoil they consider to be of poor quality. As mentioned above, there are very few situations where new topsoil is needed. Unless the new soil is contaminated, it can probably be made useful by adjusting such things as fertility and organic matter content.