

The Owner-Built Landscape

Installation Techniques

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Good luck with your landscaping project! Remember to [Plan Twice - Plant Once](#).

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Understand Your Soil



The very first consideration in new landscaping should be the condition of the native soil; the most beautiful design and efficient planning will go to waste if the landscape is installed in a poor soil environment.

Soil is a living, breathing ecosystem, and requires a thorough understanding before any landscape installation is begun (see <http://clearwaterlandscapes.com/soil.htm> for a basic soil discussion). You should be able to classify your soil as sandy, clay based, or ideally, somewhere in between. The amount of organic matter present in the soil is also important, as well as its relative acidity (pH).

Understanding your soil allows the correct choice of amendments and fertilizers - for example, a very sandy soil requires lots of organic matter, rich in nutrients. A soil heavy with clay will also benefit from organic matter, but perhaps not as much and not as rich in nutrients. Sandy soils will require more irrigation - clay soils require very careful irrigation so they are neither waterlogged or too dry.

The proposed plant material may also have a bearing on soil requirements; if you have some very shady areas, the types of plants grown are often classified as woodland plants, and need a moist, but well-drained soil. And many of these, like the azalea, prefer an acid soil (pH less than 7). So your "ideal" soil may vary from point to point at your site. For this reason, it's wise to group plants according to their soil, moisture and other cultural needs.

For more information on plant pH preferences, see <http://www.homeharvest.com/plantphpreference.htm>.

Either take the time to understand and test your own soil, or hire a landscape professional to prepare a report for you. Here in the states, local county extension agents often can arrange for an economical soil test. Also, consulting with local gardeners and landscapers often yields important information on regional soil issues.

Consider how well your soil drains. Are wet areas the result of natural low spots or poor subsoil drainage - or both? You may need to create swales to channel excess water away from your home and away from plant roots. For very wet areas, consider raised beds, either with borders or built as gentle berms - the increased height and improved soil will help to keep plant roots out of standing water.

Drainage may be so poor in some areas that you will need to install tiles or other prefabricated drainage systems. The best way to determine drainage characteristics is to observe your site during a very wet storm - second best would be to flood the area with lots of water from your hose.

When adding soil amendments to your native soil, mix the two thoroughly with a rototiller or tractor mounted tool. For a very sandy soil, four to six inches of rich organic matter (like commercial compost) should be mixed with the top ten inches of soil. If you have the machinery to cultivate deeper than ten inches, use even more amendment.

Organic fertilizers can be incorporated into the soil at the same time as the bulk amendments. Blood meal, bone meal, alfalfa meal, cottonseed meal (especially for evergreens and acid-loving plants), kelp and other natural materials will release slowly to provide nutrition for your plants for several years.

Your exact choice of fertilizers will depend on the results of your soil test and on the specific plants grown... (I found that bone meal, with its abundant phosphorus, is an excellent addition to the topsoil under new sod).

If you add topsoil to your site, check it carefully and ask for references to satisfied users before you order. What is called topsoil, and even looks like topsoil, may be extremely poor in texture or chemistry. As an example - a local excavator sells a "topsoil" product here that looks and feels very nice - even smells good! But it has such a high percentage of undecomposed wood waste that all available nitrogen is tied up in the decomposition process, and all plant material turns yellow!

In general, it's more cost effective, and often produces better results, to improve your native soil with amendments - check carefully for quality and ask for references to satisfied users.

Your investment in soil preparation will more than pay for itself in excellent plant health and vigor, lower water requirements and increased plant resistance to disease, insect and other environmental stresses.

Frequently Asked Questions

Q. Looking for additives to lower Ph of soil. They use to have a product called acidall that would lower Ph for a period of time. Any one know where to obtain this product or something that will do the same thing?

A. The link below explains it quite well - their advice corresponds to my experience trying to lower ph on golf course soils. It's not possible if the ph is above 7.8 and quite expensive if the area is large. It is possible on smaller areas with existing ph in the mid 7 range. <http://www.gov.mb.ca/agriculture/news/topics/daa04d05.html>

Q. How much does good top soil usually run per square yard? (on average) Also, how many inches deep should it be to produce a healthy lawn? My lot was stripped of top soil by the contractor and I only have rocks now.

A. Prices will vary considerably from region to region. Here, some pretty decent soil goes for \$16/yd....some very excellent soil (half commercial compost) sells for \$26/yd. Unfortunately, you may find some extremely poor dirt being sold as topsoil - be careful - best to get recommendations from local pros.

For your barren soil, add as much good soil and organic matter as you can afford...up to a six inch layer tilled in to the top few inches of your existing soil. This is a big investment,

but will eventually pay for itself in healthy plants and less water use. Good luck!

Q. All recommendations for planting grass state that there should be a minimum of 6" of topsoil. Assuming there is ample topsoil from the excavation sites, how much depth of topsoil is recommended? Is there such a thing as too much?

A. Unfortunately, the term "topsoil" does not have a standard definition. What an excavator calls topsoil, a horticulturist may call fill dirt. The topsoil from "the excavation sites" likely contains soil from various levels and will vary in quality. What is best for your particular site depends on your region, topography, subsoil type and other factors.

Q. I live in East Texas in sandy soil and have five 25' oak trees in my front yard. lots of shade. I have a drainage problem because I live at the bottom of a slope. How much soil can I add to my yard without killing the trees. I need lots of help

A. Do NOT add any soil over the roots of your trees - you may kill them. Drainage issues are dependent on several variables - soil composition, exact grade, your regional rainfall, crops grown, etc. so it's best to discuss your drainage problems with a landscape professional on site. Good luck!