

# Soil Testing

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Many gardeners toil endlessly in their landscapes without really knowing what is needed in their soil to help their plants thrive. Having a healthy soil, both physically and chemically, can aid gardeners in their ultimate goal of a well adjusted landscape. Soil testing can help with this job and should be a yearly, or at least every two years, event.

There are several nutrients that are essential for plant growth. These nutrients need to be available in the soil for the plant's root to take them up and will be available naturally or can be added with fertilizers. Nutrients allow the plant to function normally and produce their food through photosynthesis. A soil test is used to determine the amount of these nutrients in the soil as well as soil pH which will determine the availability of these nutrients.

From a soil test, a soil test report is generated that will encompass nutrient levels as well as the acidity or alkalinity of your soil. This will allow you to customize your fertilizer and lime or sulfur applications to your plant's need. Following the recommendations will help you prevent over or under fertilizing your plants and the problems that come with it.

Taking a soil sample is simple. To have your soil tested, you will need to collect 12 or more small cores from various spots throughout your lawn, vegetable garden or shrub bed. These cores should be taken from a depth of approximately 6 inches deep and combined to create a composite sample of the area tested. A simple garden trowel can be used to collect the samples which can be placed in a clean, dry bucket and then mixed thoroughly. It is important to use clean tools as pesticides and fertilizers can lead to a misleading report.

From your well mixed samples, remove at least 2 cups of soil and bring this to your local county Extension office. Be sure to keep track of where the sample was collected, especially if several areas are being tested. At the Extension office, you will be asked to fill out all the information pertaining to where your soil test was taken and what plant you are growing in that area. The current cost of a soil sample is \$6.00 per sample and each test will provide you with unbiased, scientific information on: soil pH value; current levels of phosphorous, potassium, calcium, magnesium, zinc and manganese, and; fertilizer and lime recommendation (if needed) for the plants you are growing. Soil samples can be taken any time of the year. However, it is best to sample several months before planting a garden, establishing perennials, sowing a lawn or planting shrubs. On established landscapes, anytime during the winter is ideal for taking a soil sample.

Within seven to fourteen days, a copy of your soil test will be forwarded to you by either e-mail or through the postal service. Your soil analysis report will have a bar graph representing the level of nutrients in the soil. There will also be a number that represents the soil pH and to accompany this, a recommendation of how much lime needs to be applied if needed. The comments page will tell you how much fertilizer you need, how to apply it and when. These recommendations are specific for the plants you are growing.

The soil in your landscape is a very important component to your successful gardening endeavors. Soil testing can provide you with valuable information on the chemistry of your soil and how to deal with any problems. It is simple, quick and inexpensive information.