

Know Your Soil: **Testing Your Soil**

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What is a soil test?

A routine soil test is a tool to help you manage the mineral nutrition of your growing plants. It is a quick and inexpensive way to check the levels of essential soil nutrients (elements) and check for possible lead contamination. You simply take a sample of your soil and send it to a lab for analysis. (See the section, How do I take a good soil sample?).

Why test the soil?

Homeowners, farmers, schools, and others often test soil from their gardens, yards, fields, and sports fields. The soil tests indicate soil pH and the levels of nutrients that are available for proper plant growth.

The pH of the soil is a measurement of relative acidity. Soils that are too acid are not suitable for many plants to grow at an optimum rate. Maine soils tend to be acid. In addition, soil pH has a significant influence on nutrient availability to plant roots. When soil is too acidic, the elements are locked and not allowed to be released to the plant.

Additionally, the amount and balance of nutrients in the soil have an effect on plant growth. Low levels slow plant growth. High levels can pollute the environment, or cause nutrient imbalances and stress the plants. A soil test lets you know whether you need to add more nutrients and how much lime and fertilizer, may be needed for specific crops. Test results provide information that can save you money and prevent excess nutrients in the environment.

What information does a soil test provide?

The soil test results will tell you

- soil pH;
- levels of Nitrogen (N), potassium (K), phosphorus (P), calcium (Ca), magnesium (Mg), and sulfur (S);
- organic matter level (percentage);
- whether there is lead contamination (For health reasons, all soil samples from home gardens and lawns are measured for lead content.);
- how much lime and fertilizer (organic or chemical) to add; and
- other management tips for growing your crop.

How often should I test the soil?

Test your soil at least once every three years. Keep the test results handy so that you can monitor any changes in soil fertility.

You may want to test more often if you have a problem area or if you've applied lots of nutrients. Some people test their soil every year to save money on fertilizer, lime, and other soil amendments. How often you test depends on the value of your crop and how closely you want to manage it.

What time of year should I test my soil?

The results of your soil test give recommendations for the next growing season, so you should test soil well before the growing season, such as in early spring after the frost is out of the soil, or in the fall before the ground freezes. A soil test usually takes two to three weeks (from shipping to the lab to return of results). The results will be the same whether you test in spring or in fall, but with fall sampling, you will get results back in plenty of time for planting for the next generation.

Note: Soil testing prices have changed since the making of this video; please, check the Analytical Lab and Maine Soil Testing Service website for up-to-date pricing.

How do I take a good soil sample?

- 1 Get a Maine Soil Testing Service container and information form from your University of Maine Cooperative Extension County Office, or from the Analytical Lab and Maine Soil Testing Service. Call 207-581-3591. Some garden centers may carry them as well.
- 2 Use a clean spade, trowel, or soil probe to sample the soil. Take several samples in different spots to fully represent the garden or field. You will want to sample the entire rooting zone depth – usually a depth of 6 to 8 inches for gardens and 3 to 4 inches for sod or turf. Use a clean container to collect and combine all of the samples.

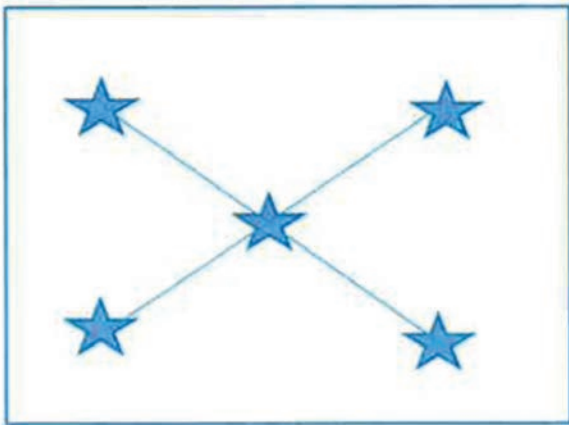


Figure 1: Shows where soil samples should be taken from any field or garden.

- 3 Mix the soil thoroughly and fill the sample container box with soil.
- 4 Label the container with your name, address, and sample identification (e.g. "rose garden," "Wilson field," "back lawn" – some way for you to remember where the sample came from).
- 5 Fill out the information form, completing all fields that apply to you. If you include your e-mail address, you can have your results e-mailed to you and get them back more quickly.
- 6 Send in the top sheet of the information form. Keep the second (carbon) sheet for your records.
- 7 Put the sample container(s) and information form, with check or money order, in a mailing container and mail it to the address on the form.

What should I do next?

When you get them back, the results of your soil test will include recommendations on how to improve your soil. To help you understand your results, the **Analytical Lab and Maine Soil Testing Service** offers **Interpreting Soil Test Results for Gardens and Grounds** on the Understanding Recommendations website: umaine.edu/soiltestinglab/home/under/

If you have any additional questions, **contact your University of Maine Extension County Office**. Your county Extension office will automatically receive a copy of your soil test results from the lab, so a specialist, educator, or professional in that office can easily go over your results with you by phone.

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