

Testing Your Soil

Know 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 and check for lead contamination. You simply take a sample of your soil and send it to a lab for analysis.

Why test the soil?

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

The pH of the soil is a measurement of relative acidity. Soils that are too acid are not suitable for many plants. Maine soils tend to be acid.

The amount and balance of nutrients in the soil has an effect on plant growth, too. 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, if any, to add. Test results provide information that can save you money and prevent water pollution.

What information does a soil test provide?

The soil test results will tell you

- soil pH;
- levels of potassium (K), phosphorus (P), calcium (Ca), magnesium (Mg), and sulfur (S);
- organic matter level;
- 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 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.

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 [Maine Soil Testing Lab](#)—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.
3. Mix the soil thoroughly and fill the sample container with soil.
4. Label the container with your name, address, and sample identification (e.g. “garden,” “field,” “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 Maine Soil Testing Service offers “[Interpreting Soil Test Results for Gardens and Grounds](#).”

If you have any additional questions, contact your [UMaine Extension county office](#). Your county office will automatically receive a copy of your soil test results from the lab, so a specialist or educator in that office can easily go over your results with you over the phone.

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