

HOW TO TEST YOUR SOIL

WHY TEST YOUR SOIL?

Soil health has an influence on the health of crops, gardens, farms, and the environment. Soil tests can measure factors that determine soil health, such as pH, nutrient levels, heavy metals, and acidity. Soil testing helps gardeners and farmers know what their land needs in order to grow healthy crops.

Soil testing can also save money as it may show that gardens and farms do not need compost, fertilizers, etc. It is important for vegetable gardeners in urban areas to test for heavy metals to avoid consuming produce that contains heavy metals.

HOW DOES IT WORK?

Testing for soil fertility and composition generally requires gardeners to send their soil to a lab. Here is what to expect when you send your soil for lab testing:

1



First, you must collect a soil sample from your garden. Different labs will have different collection instructions, but most will have you collect subsamples of soil from different parts of your garden at a depth of 6-8 inches and then combine the subsamples.

2



Once the soil reaches the lab, they will use the sample to conduct the laboratory tests you requested. We recommend testing your soil for nutrient content, pH, and heavy metals.

3



Most samples will be processed a few weeks after they have been received. Once the sample is processed, the lab will send your soil test results. Some labs will also provide soil management recommendations based on the results.



WHERE TO TEST SOIL?

UMass Amherst Soil and Plant Nutrient Testing Laboratory (Amherst, MA):

UMass conducts a routine soil analysis, which includes pH, acidity, extractable nutrients (P, K, Ca, Mg, Fe, Mn, Zn, Cu, B), lead, aluminum, cation exchange capacity, and percent base saturation. UMass also conducts additional optional testing for soil organic matter, soluble salts, and soil nitrate at an additional cost.

Email: soiltest@umass.edu

UConn Soil Nutrient Analysis Laboratory (Storrs, CT):

UConn's Soil Nutrient Analysis Laboratory (SNAL) is an inexpensive avenue for gardeners to examine the health and fertility of their soil. UConn SNAL regularly tests soil for a variety of macro and micro nutrients (Ca, Mg, P, K, S, Fe, Mn, Cu, Zn, Al, B), lead, cation exchange capacity, and soil pH. They also provide limestone and fertilizer recommendations based on soil test results. For groups looking to save money on soil testing, UConn will provide a discount for a group of 10 or more samples sent for a Standard Nutrient Analysis. *Email: soiltest@uconn.edu*

UNH Cooperative Extension Soil Testing Service (Durham, NH):

UNH has a soil testing service that provides soil analysis and fertilizer recommendations to gardeners and farmers. UNH conducts standard soil analyses and customized soil tests upon request and for an additional fee. The Standard Gardening Test includes extractable Ca, Mg, K, P, soil pH, organic matter content, and a lead screening analysis. *Email: soil.testing@unh.edu*

NEED HELP READING A SOIL TEST?

Both UConn and UNH provide fertilizer recommendations . In terms of lead contamination, soils that have 400 ppm lead or more are a concern in children's play areas and those that have 1200 ppm of lead are a concern for all individuals. UConn SNAL also has a tip sheet to explain lead management practices at:

<https://soiltest.uconn.edu/factsheets/LeadGardenSoils.pdf>.

Sources: University of Connecticut Soil Nutrient Analysis Laboratory, University of Massachusetts Amherst Soil and Plant Nutrient Testing Laboratory, and University of New Hampshire Cooperative Extension Soil Testing Service