

Soil testing in MA, with a focus on urban gardening MOTHERS OUT FRONT—HEALTHY SOILS, LIVABLE FUTURE.

NOTE: Mothers Out Front does not specialize in soils or soil health. This is simply a short list of documents and university soil testing labs that can help you understand and identify potential toxins as well as other soil health markers. Any group creating urban, suburban or rural gardening projects should begin with a soil test to determine possible toxins, as well as soil structure, pH and organic matter. Even if you are not growing food, it is good to get the soil tested to determine best practices, such as no till, 'lasagna' layer gardening to minimize dust and dirt accumulating on your hands and clothes if there are toxins found in the soil.

<https://clf.jhsph.edu/projects/urban-agriculture/urban-soil-safety-study>

Baltimore has done a study to see how many local urban gardeners understood the potential for soil contamination and the consequences. This website has a couple of interesting links to this study as well as other resources. This is helpful to understanding the potential risks, while still encouraging this ultimately beneficial activity.

Links to state operated soil testing.

<http://massmastergardeners.org/soil-test/>

The only state with biology testing is Maine, and the link is found in the document, above. Most gardeners don't need to do biological testing. The key is to get some good local (preferably not bagged) compost and get plants growing as soon as possible...that will get the soil biology going.

If you want to track your garden's biology, it would be an interesting experiment to test for biology in the beginning, before starting and then again later if you have the funds.

You can also retest periodically to see if your soil is accumulating Soil Organic Matter (SOM). That is a \$6.00 add on to the UMASS standard test listed below.

It is pretty widely accepted that SOM is a way of testing for soil Carbon storage, however it can vary widely and so it is not simple to prove how much carbon a soil is actually storing. Testing water infiltration and absorption is another way to see how well your soil is functioning.

UMass Center for Agriculture, Food and the Environment

The information, below, is found on the UMass website. I cut and pasted some of the key information.

They do not do soil biology testing, which isn't necessary. By adding compost and plants, soil life should start to build.

<https://ag.umass.edu/services/soil-plant-nutrient-testing-laboratory>

Why Test Soil?

Here are five good reasons!

Nutrient levels - Test results provide you with soil nutrient levels and fertilizer recommendations when needed.

Soil Acidity - Soil pH and exchangeable acidity are measured for the determination of lime requirements.

Environmental Protection - Test results identify areas with excess nutrients that can pollute local waterways.

Economics - You buy soil amendments only when needed, avoiding unnecessary spending.

Health - Soil testing can help protect you and your family by alerting you to elevated levels of lead or other toxic heavy metals.

Soil tests do not identify plant growth problems associated with soil drainage, insects, plant diseases (whether soil-borne or not), weeds, winter injury or the misuse of pesticides.”

What we can analyze?

UMass accepts new orders for ROUTINE SOIL ANALYSIS (including optional Organic Matter, Soluble Salts, and Nitrate testing) and PARTICLE SIZE ANALYSIS orders ONLY. Please do not send orders for other types of analyses at this time.”

This is what their routine test screens for:

“Routine Soil Analysis\$ 20.00 per sample
Analysis includes pH, exchangeable acidity, Modified Morgan extractable nutrients (P, K, Ca, Mg, Fe, Mn, Zn, Cu, B, S), lead (Pb), and aluminum (Al), cation exchange capacity, and base saturation, as well as crop-specific lime and nutrient recommendations. The Modified Morgan extraction method and recommendations were developed for New England soils and climate.”

UMaine

Does a soil biology test.