

INTERPRETING YOUR SOIL TEST

This guide will help you understand your soil test results. It provides general guidelines to understand the quality of your soil, including pH and percentage organic matter, and instructions for how to interpret the lead levels (while the laboratory tests for other heavy metals, this guide only provides information for how to interpret lead levels). See laboratory results for information on other heavy metals. Even if your soil test comes back clean, we encourage you to follow the “Good Gardening Practices” listed in the sidebar to ensure a healthy and safe garden!



SOIL pH LEVEL

Soil pH is a measure of the acidity of soil, measured on a scale of 0 (acidic) to 14 (alkaline). Generally, vegetable crops like a neutral soil level (7) for best growing results. If your pH is high (above 8) you may want to work on lowering the levels. A simple way to improve soil pH is by adding organic material, as described in the next section.

PERCENTAGE OF ORGANIC MATTER

Organic matter, made up of decomposed plants, is the content of your soil which provides nutrients for your plants to grow. A low percentage (below 4%) indicates that there are very few nutrients in your soil and you will need to work to increase that level. This can be done most easily by adding compost on a regular basis in the spring and fall. You can also increase organic matter by working in other organic materials, such as composted manure, leaves, or straw, which will eventually break down into usable organic matter. These materials will need time to break down before you are able to plant in that area. Ideally add these materials in the fall as you put your garden to bed and then turn broken down materials into the soil as you prepare your spring garden using a shovel or garden fork.

UNDERSTANDING LEAD LEVELS

It is generally considered safe to use garden produce grown in soils with total *estimated* lead levels less than 320 parts per million. Your soil test results will show the *extracted* lead levels. Below are our recommended guidelines for interpreting your extracted lead levels.

LESS THAN 25 (EXTRACTED) = LESS THAN 320 (ESTIMATED)

There is very little or low lead levels in the soil. If your lead results are on the higher end of this range and you are planning to grow a vegetable garden, you may want to consider using raised beds and/or work on improving your soil to reduce the risk of exposure (either through plant uptake or direct contact).

- Practice “Good Gardening Practices” listed above.
- Improve your soil by mixing in organic material with compost, and/or other materials when preparing beds and when putting garden to bed for the winter.
- Take extra precaution when gardening with children because they are more at risk for lead exposure. We recommend using raised beds if your soil is near the 320 ppm estimated lead level and you are working with youth.

ABOVE 25 (EXTRACTED) = GREATER THAN 320 (ESTIMATED)

There is an elevated to high level of lead in your soil. We do not recommend planting a vegetable garden in this area.

- Raised beds may be an option, depending on circumstances. The concern is not only what the plants take up, but also the dust that may be in area that could contaminate raised beds. If you do choose to garden here avoid planting leafy greens or root vegetables; focus on planting fruiting crops, such as tomatoes, melons, etc.
- Fully cover area with wood chips or grass so no soil is exposed.
- Consider testing your blood levels for exposure to lead.

GOOD GARDENING PRACTICES

The main objective of “good gardening practices” is to avoid breathing and or eating dust that may contain contaminants such as lead.

- Wear gloves while working in the garden.
- Thoroughly wash ALL produce and peel root vegetables.
- Incorporate organic material into the garden.
- Keep dust down by mulching with materials such as wood chips or straw.
- Remove gardening shoes and dirty clothing and/or leave them outdoors to avoid tracking dust into the house.



This Resource Guide is prepared by Keep Growing Detroit for participants in the Garden Resource Program. For more info please contact 313-757-2635, keepgrowingdetroit@gmail.com or visit our website at WWW.DETROITAGRICULTURE.NET