Thank you again for participating in our soil study. Your results are in. Below is a guide to reading your soil test.

Please note that not all soil nutrients were tested for, you will notice blanks next to many of the nutrients.

You will also notice that lead (Pb) and soil types are not listed on this test. Another set of soil test results will be forthcoming in the near future. We just wanted to get early results to you as soon as we could.

The following nutrients were tested for, their periodic table symbol is listed next to them – Phosphorus (expressed as P1 Bray, the type of test done), Potassium (K), Magnesium (Mg), Calcium (Ca), and Sulfur (S). In addition to these nutrients soil pH, cation exchange capacity (CEC), and organic matter were tested for.

The middle of the sheet will provide you with information regarding these nutrients – with your amount on the top and the optimum level below. It is expressed in two ways, first as a whole number and then as a percent. This percentage is an expression of the percent of each nutrient that is a cation in relationship to the total number of cations. Don’t let this confuse you. Just look to see if you are near the optimum and don’t sweat it if too much if you’re off by some percentage points.

At the bottom of the sheet is handy graph that may be easier to read than the numbers. Note that the goal is not to be very high – but closer toward high. There is such a thing as too much of a good thing.

Soil pH – soil pH is important because it regulates a plant’s ability to take up nutrients. In an ideal world a pH of 6.5 is desirable. We however do not live in an ideal world. In our experience Detroit pH’s tend to be higher in the 7.5-7.8 range. Even within this pH range you should be able to grow a great garden.

Cation Exchange Capacity – a simple way of thinking about the cation exchange capacity is imagining the number to correspond to how “sticky” the soil is. The higher the CEC the more nutrients will stick to the soil, and the more nutrients the soil can hold. Soils higher in clay and organic matter tend to have a high CEC. Soils with high CECs are also associated with better moisture retention. Generally most Detroit soils have a CEC in the range of 15-25.

Soil organic matter – organic matter is a measure of how much dead plant and animal matter is in your soil. Since soil organic matter is crucial for bacteria, fungi, plants, and other members of the soil food web to thrive this number is crucial for healthy living soils. Soil organic matter contents at 5% and above are generally considered desirable however this depends on soil types. In sandy soils this number may be impossible to reach despite heavy additions of compost. In the silt or clay soils typical of Detroit, obtaining an approximate 5% value is more reasonable.

What about the Nitrogen? Where is the Nitrogen? You may know that nitrogen is very important to plant growth. Unlike a lot of the other nutrients sampled above nitrogen tends to move around in the soil and soil tests tend don’t give a particularly accurate idea of what is happening with nitrogen the soil.

A reminder that modifications to the testing area will disqualify you from the study. Your soil will be tested again in 1 year for these same properties and your results will be provided to you a second time. In the meanwhile, if you have any additional questions feel free to contact us.