



Soil Testing

Testing your soil is a critical first step to understanding the needs of your garden. Soil testing is not just finding out the pH of your soil; it is used to discover what is really going on under your lawn or garden. Don't get me wrong, the pH is very important, but is it the most important part of a soil test? No.

It's elemental

There are five different elements present in your soil that can affect your soil as much as the pH level. Those five elements are Nitrogen (N), Phosphorus (P), Potassium (K), Calcium (Ca) and Magnesium (Mg). Why are these elements important?

- Nitrogen helps green up your lawn.
- Phosphorus helps root and shoot development.
- Potassium helps regulate CO₂ and water intake.
- Calcium helps to maintain chemical balance in the soil, reduces soil salinity, and improves water penetration.
- Finally, Magnesium helps with photosynthesis and helps give grass its green color.

Understanding the Results

When you get the results of a soil test you will see these nutrients listed with numbers either next to them or under them. It looks like it is in a foreign language. This test will tell you if the soil is deficient

in these nutrients. Not enough nutrients present in the soil is usually the easiest fix. You identify the needed nutrients listed on the test results and apply as needed. When in the soil test results report there is an excess of nutrients, the issue is usually caused by a magnesium deficiency. Magnesium binds your soil and prevents the nutrients and water from flowing freely in the ground.

How do you fix this problem?

I recommend using [Natural Alternative® Sulfur with Protilizer®](#). Not only does it break up the magnesium in the soil, but it helps leach the soil of the extra nutrients, allowing the right flow throughout the soil. Excessively high magnesium can also cause the pH to be high. Which brings me back to my original point that the pH isn't as important as you think. All the elements in the soil impact the quality of the soil. If you don't have a clear understanding of what else, outside of the pH level, is going on underground, you may never have a successful lawn or garden by knowing the pH level alone.

Analysis	Result	Optimal	Analysis
Soil pH	5.5	6.0-6.8	UMD Phosphorus FIV
Buffer pH	6.7		
Organic Matter	% 3.5		
CEC	9.4		
K Saturation	% 4.7	2.0-4.0	
Mg Saturation	% 14.3	10-20	
Ca Saturation	% 42.9	50-70	
K/Mg Ratio	1.1		
Ca/Mg Ratio	5.9		
Phosphorus	m3-ppm 41	50-80	
Potassium	m3-ppm 204	140-230	
Magnesium	m3-ppm 183	150-300	
Calcium	m3-ppm 1076	1200-1800	

