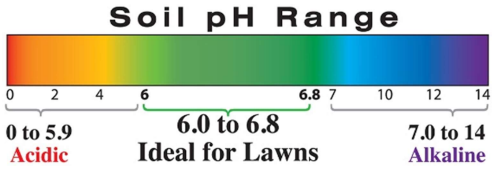
Importance of pH

Most of us have only a limited understanding of the way pH effects our lawns and how very important it is in keeping lawns healthy. The pH is in the soil is a way to measure how acidic or alkaline soil may be. On a scale of 1 to 14 a pH of 1 is very acidic and a pH of 14 is very alkaline, a pH reading of 7 would be neutral. Lawn grow best in soil that is neutral to slightly acidic between a 6 and a 6.8 reading. Small changes in pH readings can mean big changes in the health of the lawn. This is because the pH scale is logarithmic not arithmetic. This means that a pH reading of 5 is ten times more acidic than a pH reading of 6, and one hundred times more acidic than a pH reading of 7, and so on.



Why is this important? Lawn grasses need a slightly acidic pH, reading between 6.0 – 6.8, to grow healthy and strong. Tiny soil microorganisms increase and multiply in soil, when the soil has a proper pH. They die in acidic soils of low pH! These microorganism's breakdown the vast array of the organic compounds and mineral nutrients found in the soil that no other form of life can degrade. Since grass plants need much more than the nitrogen, phosphorous and potassium that comes in the bag of fertilizer you spread, they can only get their other essential nutritional requirements from the soil. These include, humic and fulvic acids, calcium, sulfur, iron, manganese, cobalt etc. etc. The bag of fertilizer you spread on your lawn is mostly wasted when the soil pH is too acidic. Also weeds thrive in acidic soils of low pH, so you fight a never ending battle trying to eliminate the lawn weeds. Turf diseases and even insect populations are kept in check when the soil pH is adjusted. There is nothing more important that you can do for your lawn than to improve a low pH soil by bringing it up to a 6.0 or higher pH.

SOIL ACIDITY	FERTILIZER WASTED
4.5 pH	71%
5.0 pH	54%
5.5 pH	33%
6.0 pH	20%
6.5 pH	0%

Note: Even in high alkaline soils exhibiting a higher pH there may also be a high sodium content. The sodium competes with the calcium reducing both elements availability. Calcium is not very mobile in the soil, or lawn grass plant tissue, therefore a continuous supply is essential for the development of a healthy attractive lawn.

More About Why the Soil pH level of your lawn is important.

pH is a measure of the quantity of hydrogen present in the soil. As the amount of hydrogen in the lawn increases, the soil pH reading decreases, thus becoming more acidic. Hydrogen carries a weak positive electrical charge which enables it to attach to negatively charges sites on the clay and humus particles in the soil that contain most of the nutrients the grass needs to thrive. Therefore, these negatively charged sites become clogged with positively charged hydrogen; thus the mineral nutrients are not able to attach to these same sites.

How does Solu-Cal raise lawn soil pH?

As Solu-Cal enhanced calcitic lime dissolves in the water in the lawn soil, the hydrogen that is attached to the clay and humus particles reacts with the calcium carbonate contained in Solu-Cal to form carbon dioxide and water. The result is that the exchange sites are partially cleared of hydrogen and the soil becomes less acidic or has a higher pH reading.