Is Low Soil pH Holding You Back?

Soils today have a tendency to become acidic as a result of continued use of fertilizers, cations being leached from the soil, crop removal, and the decomposing of organic matter. Research on the use and benefits of applying aglime to raise soil pH has been conducted in the U.S. since the late 1800's. Limestone of high quality, pulverized to an effective particle size (60 to 100 mesh) has been proven to quickly neutralize acidic soil conditions. Maximum fertility occurs when soil pH is between 6.0 and 7.2. At a low pH, many nutrients become soluble and are readily leached from the soil profile. If soil pH is too high, some nutrients become insoluble and plants cannot extract them. Test your soil to see if low soil pH is holding back your crops.

N, P, K

Nitrogen (N) is an essential nutrient for crop production. Organic matter in the soil releases N slowly, the rate is controlled by microbial activity in the soil which is influenced by temperature, moisture, pH and texture. A soil pH of 8.5 is optimum for nitrification to take place.

Phosphorus (P) is present in every living cell, both plant and animal. It is the second of the three major nutrients plants need to thrive. In soils with low pH, P reacts with Fe, Al and Mn to form insoluble products which make P less available. P is most available when soil pH is between 5.5 and 7.5.

Potassium (K) is taken up by plants in large quantities performing many functions. It regulates water pressure in plant cells, vital to photosynthesis, protein synthesis and aids in determining crop yield. Plants lacking K will tend to wilt easier, grow slowly and have poorly developed root systems.

Soil is an investment that needs to be managed to optimize productivity.

References: