



Micronutrients in the Soil

The soil is often a good reservoir for micronutrients. However, some soils may contain thousands of pounds of certain micronutrients per acre while only small amounts of other nutrients. Total soil content of micronutrients does not indicate the amounts that are available for crop growth. Soil conditions, weather, crop to be grown and farmer management can all affect the availability of the micronutrients.

Some of the factors that affect soil micronutrient availability are:

Soil Texture- a measure of the relative contents of sand, silt and clay. Sandy soils (coarse texture) are most often deficient in micronutrients and other essential nutrients too. Clay soils (fine texture) are less likely to be low in plant-usable amounts.

Mineral soils low in organic matter tend to have lower micronutrient availability. However, soils which are largely comprised of organic matter are naturally low in micronutrient availability, holding those nutrients in unavailable forms.

Temperature and Soil Moisture- cold soils reduce the amounts of micronutrients that can be taken up by crop plants. In early spring, Zn deficiencies in corn may be more severe because of cold, wet soil conditions. However, Zn deficiency symptoms often disappear when the weather gets warmer and drier soil conditions prevail.

Soil pH- a measure of the soil's level of acidity or alkalinity. In acid soils (low pH), most of the micronutrients are at their peak availability.

Nutrient Interactions- the balance among the micronutrients in the soil, as well as that with other nutrients, affects their availability. For instance, soils high in phosphorus levels can depress zinc uptake and reduce yields.

Other Factors- Millions of crop acres are irrigated to increase yields by supplementing rainfall. Some irrigation waters contain varying levels of micronutrients as well as other nutrients. When land is leveled to accommodate irrigation, micronutrient deficiencies, particularly Zn, often occur because the available Zn is removed with the surface soil (organic matter). Corrective measures, such as applying Nulex Liquid Zinc, are necessary in correcting such problems.

Information as found in "Micronutrients The Activators"