

Nutrients - What Plants Need and Why!

Plants, like other living things need nutrients to keep growing. Most fertilizer packages list three plant nutrients-nitrogen, phosphorus, and potassium (N-P-K, in that order);



Nitrogen spurs on leafy growth. With too much nitrogen, some plants will not flower; too little and plants may have pale-green or yellowish older leaves.

Phosphorus encourages good blooming and root development. Too little phosphorus will cause stunted plant growth and purplish younger leaves.

Potassium is directly involved in photosynthesis (the process of converting sunlight to energy). It also encourages disease resistance and sturdy stems. Without enough potassium, a plant may have yellowish or spotted older leaves.

However, there are many more, commonly called **micronutrients**. Here's what the most important ones do:

Calcium promotes strong cells and root growth. Environmental conditions, such as heat or drought, may make it difficult for some plants to absorb calcium. If plants don't get enough calcium, they may drop blossoms, show yellow edges on young leaves, or have curled leaves.

Sulfur is necessary for the formation of chlorophyll (the green pigment in plants that converts light to energy). It promotes healthy roots and lowers soil pH. Without enough sulfur, a plant's new leaves may appear yellowed. Deficiencies are uncommon, however.

Magnesium is a component of chlorophyll. Acidic, sandy soils often contain less magnesium than alkaline, humus-rich, or clay soils. Too much nitrogen or potassium may make it difficult for plants to absorb magnesium. Without enough magnesium, plants may have yellowish older leaves with green veins.

Manganese is involved in the formation of chlorophyll and helps plants use nitrogen. It is more available to plants in acidic soils than in alkaline soils. Without enough manganese, plants may have yellowish older leaves with green veins.

Iron is more available to plants if the soil is acidic. Lowering the soil pH (by adding organic matter or Sulfur) may be more beneficial than adding more iron. Since iron is also associated with chlorophyll, a lack of iron may result in stunted plant growth and younger leaves turning yellow. The yellowing often starts at the edges and spreads inward.

Chlorine is important to plant metabolism and influences water movement within the plant. Too little chlorine is rare. Too much chlorine is more common, especially around swimming pools, and results in brown leaf tips. Entire leaves may turn yellow and fall from the plant.

Zinc helps the plant use sugars, which influence plant size and growth rate. Without enough zinc in the soil, the plant leaves may be smaller than usual or have puckered-looking edges.

Boron influences how plants use and absorb other nutrients. Too little boron in the soil may cause dead or deformed new growth or unusually brittle leaves. Plants require very little boron, however.

Copper is a part of many proteins and is important to plant reproduction. When plants lack copper, their younger leaves may be misshapen or dark blue-green.

Molybdenum influences how plants use nitrogen. Plants require only minute amounts, but without enough of this mineral, plants may look as if they're nitrogen deficient with pale-green or yellowish older leaves.



Did you know - compost contains not only N-P-K, but also ALL the micronutrients as well!
