B.Sc. II Semester

Paper: BBT 2002

Unit II

Lecture III: Mineral Nutrient Deficiency

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Plant Nutrient Deficiency

What is the most common mineral deficiency in plants?

The nutrients most commonly deficient in plants are phosphorus, nitrogen, and iron. Phosphorus can be present in the soil, but in quantities too small to be taken up effectively. Nitrogen might be present, but in a form that cannot be used by plants. In alkaline soils, some plants are unable to take up iron

What is the most common symptom of plant nutrient deficiency in plants?

Some of the most common symptoms of nutrient deficiencies are chlorosis, foliage color changes, overall plant stunting and sometimes necrosis. All can be caused by one or more deficiencies

Source: Open access

Deficiency Symptoms

Deficiency symptoms for

Group I: Minerals that are part of carbon compounds (N & S)

Nitrogen: **Rapidly inhibit plant growth, If persists most species shows chlorosis . Espacially in the older leaves near the base of plant. Under severe nitrogen deficiency these leaves become completely yellow and fall off the plant**.

Deficiency Symptoms

Deficiency symptoms for

Group I: Minerals that are part of carbon compounds

Sulfur: **Cholorosis of young leaves, stunting of growth, anthocyanin accumulation.**

Deficiency Symptoms

Group II: Minerals that are imparted in energy storage and structural integrity

Phosphorus: Stunted growth in young plants, dark green coloration of leaves
Production of slender stem and the death of older leaves
Delay in maturation of plants

Silicon: More susceptible to falling over and fungal infection

Boron: Black necrosis in young leaves and terminal buds.

Lecture IV : Mineral absorption