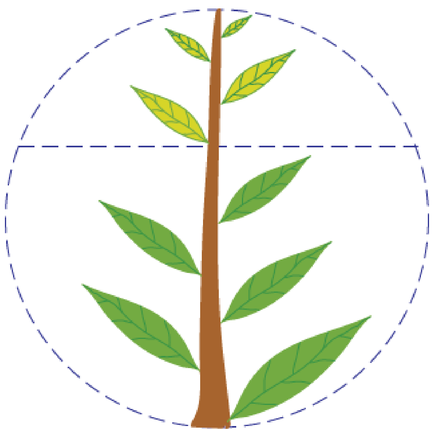
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Manganese deficiency symptoms



Manganese functions primarily as part of plant enzyme systems. It has a role in several metabolic reactions, including the conversion of nitrate-N to a form the plant can use. It plays a direct role in photosynthesis by aiding chlorophyll synthesis. Deficiencies often occur on high organic matter soils with neutral to alkaline pH and on those soils that are naturally low in Mn.

Symptom Description — Manganese is immobile in the plant, so its deficiency appears as reduced or stunted growth with visual interveinal chlorosis on younger leaves. Cereals can develop gray spots on their lower leaves, and legumes can develop necrotic areas on their cotyledons. Soybeans and potatoes commonly show interveinal chlorosis on the upper leaves, while veins remain green. Leaves become pale green first, then pale yellow. Then, as the deficiency becomes more severe, brown, dead areas appear.


Wheat


Soybean


Maize


Wheat


Celery


Maize

IPNI Crop Nutrient Deficiency Image Collection©

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