Plant Nutrient Deficiency - Quick Field Guide

Use this quick reference when checking plants in the garden. Look at where symptoms appear first (old leaves vs new leaves) and compare the visual symptoms below.

Visible Symptom	Possible Deficiency	Where / Extra Clues
Older leaves turning pale yellow	Nitrogen (N)	Usually starts with oldest leaves; plant growth slows.
Yellowing between veins on older leaves	Magnesium (Mg)	Common in tomatoes, roses, potatoes.
Young leaves yellow but veins stay green	Iron (Fe)	Most visible on newest leaves; common in alkaline soils.
Leaf edges brown or scorched	Potassium (K)	Older leaves affected first; weak stems, poor flowering.
Leaves or stems develop purple tint	Phosphorus (P)	Often appears in cold soil; plants may be stunted.
Distorted or twisted new growth	Calcium (Ca)	New leaves affected; blossom end rot in tomatoes/peppers.
Small leaves with shortened stems	Zinc (Zn)	Plants appear compact or rosette-like.
Young leaves pale yellow overall	Sulfur (S)	Looks like nitrogen deficiency but appears on new leaves first.
Yellow patches with small brown spots	Manganese (Mn)	Spots develop between veins.
Growing tips die back	Boron (B)	Stems brittle; poor fruit development.
Leaves curl downward	Potassium or water stress	Check soil moisture and feeding.
Leaf tips turn brown first	Salt buildup or potassium imbalance	Common in containers.
Overall stunted growth	Nitrogen or phosphorus	Plant remains small compared to normal growth.
Poor flowering or fruit set	Potassium or boron	Flowers may drop early.

Quick tip: If older leaves show symptoms first, the problem is often a mobile nutrient (N, P, K, Mg). If the newest leaves show symptoms first, it is often an immobile nutrient (Ca, Fe, B).