

# Flourish™ & Flourish Tabs™ constituents and signs of deficiency

Element	Major Function	Sign of Deficiency
Oxygen	Major component of organic compounds	n/a
Carbon	Major component of organic compounds	Stunted growth, affects whole plant
Hydrogen	Major component of organic compounds	n/a
Nitrogen	Component of nucleic acids, proteins, hormones, coenzymes, etc	Stunted growth, chlorosis, affects whole plant
Potassium	Cofactor in protein synthesis, osmosis, operation of stomata	Chlorosis, necrosis, weak stems and roots, older leaves most affected
Calcium	Formation and stability of cell walls, maintenance of membrane structure and permeability, activates some enzymes	death of shoot and root tips, young leaves most affected
Magnesium	Component of chlorophyll, activate many enzymes	Chlorosis, older leaves most affected
Phosphorus	Component of nucleic acids, phospholipids, ATP, several coenzymes	Stunted growth, plant dark green, affects entire plant
Sulfur	Component of proteins, coenzymes	Chlorosis, with veins remaining dark and tissue between light, affects young leaves
Sodium	Osmosis, charge balance, used in C4 pathway of photosynthesis	
Chlorine	activates photosynthetic elements, functions in water balance	Wilted leaves, stunted roots, chlorosis, necrosis
Iron	Component of cytochromes, may active some enzymes	chlorosis of tissue between veins, stems short and slender, affects young leaves
Boron	Cellular membrane function, root growth, flowering, carbohydrate transport, nucleic acid synthesis	Death of stem and root apical meristem, leaves twisted, young tissue most affected
Manganese	Active in formation of amino acids, activates some enzymes, photolysis of water	Chlorosis of young leaves, with smallest veins remaining green, necrosis between veins
Zinc	Active in formation of chlorophyll, activates some enzymes	Reduced leaf size, shortened internodes, chlorosis spotted leaves, older leaves most affected
Copper	Component of many redox enzymes	Young leaves dark green, twisted, wilted, tip remains alive
Molybdenum	Essential for nitrogen fixation	Chlorosis, twisting, death of young leaves
Cobalt	Enzyme cofactor	
Nickel	Component of enzyme urease	
Bromine	Used in some enzymes	
Rubidium	Enzyme cofactor	
Tin	Enzyme cofactor	
Vanadium	Enzyme cofactor	