

IDENTIFYING SPECIFIC NUTRIENT DEFICIENCIES

Trace Elements Deficiencies

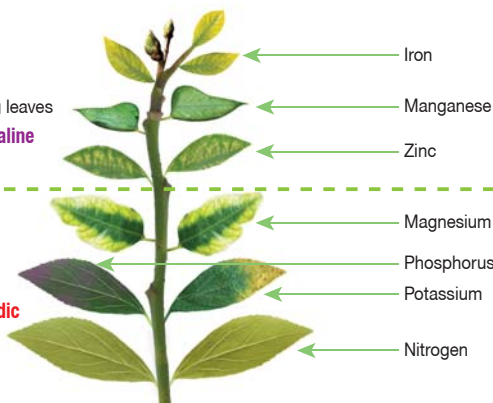
On new growth and young leaves

Normally occur under alkaline (high pH) conditions

Major Nutrient Deficiencies

On lower or older leaves

Normally occur under acidic (low pH) conditions



IRON DEFICIENCY

Symptoms are typically the yellowing of top fresh leaves with veins remaining green.

Manutec Iron Chelate EDTA is fast acting, high analysis product that performs well even under alkaline soil conditions.

Manutec Iron Sulphate is also high analysis economical source of Iron, but is not as effective under alkaline conditions. Iron Sulphate is also a soil acidifier and helps in the controlling of moss.



ZINC & MANGANESE DEFICIENCY

Symptoms are typically the yellowing of top fresh leaves with veins becoming pale green. In severe cases, this results in little or bunch leaves.

Manutec Zinc & Manganese is an easy to use, high analysis, soluble product – providing a quick remedy.



MAGNESIUM DEFICIENCY

Symptoms are similar to that of Iron (interveinal yellowing) but is seen in the older, matured leaves.

Manutec Epsom Salt (Magnesium Sulphate) is a high analysis and fast acting product – providing a quick remedy. Easy to use, highly soluble and value for money.



COPPER DEFICIENCY

Symptoms similar to that of Zinc with interveinal yellowing in young or fresh leaves with pale green veins. Under severe deficiency, the die off of leaf tips can be seen.

Manutec Copper Sulphate is high in analysis, easy to mix into a solution, and fast acting – providing a quick remedy.



BORON DEFICIENCY

Symptoms commonly occur at the very tips of plants with the discoloration of leaf buds and die back. Deficiency symptoms are also evident in fruit or produce – such as “brown heart” in Cauliflower, brown spots in apples/pears etc.

Manutec Boron is high in analysis, fast acting – providing a quick and easy remedy.



POTASSIUM DEFICIENCY

An initial deficiency symptom is the scorched leaf margins/leaf edges. A continual deficiency results in the poor colour, reduced size and yield quantity of Flowers and Fruits.

Manutec Liquid Potash Plus is fast acting – providing both Potassium & Phosphorous to enhance flowering & fruiting.



For further information about Manutec Garden products visit – www.manutec.com.au

Manutec
GARDEN CARE PRODUCTS

INFORMATION GUIDE

CORRECTIVE PRODUCTS

FOR OVERCOMING SPECIFIC DEFICIENCIES

Soils often become deficient due to their inherent physical problems or by the addition of other products, creating a chemical imbalance.

Sandy soils (with poor water & nutrient holding capacity) and soils where organic manures have been excessively used, are prone to deficiencies. In particular Potassium & Trace Elements.

In alkaline soils (affected by salts/lime), plants are unable to absorb all available nutrients and this triggers lime induced trace element deficiencies of Iron, Manganese, Zinc etc.

In acidic (low soil pH) conditions, this commonly triggers deficiencies of major nutrients such as Nitrogen, Phosphorus, Potassium, Calcium & Magnesium.

Soil pH & nutrient availability

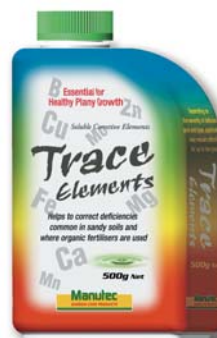
Acidic	Neutral	Alkaline
Low Soil pH	Optimum pH range for plant growth	High Soil pH
	Nitrogen	
	Phosphorous	
	Potassium	
	Sulphur	
	Calcium	
	Magnesium	
	Iron	
	Manganese	
	Boron	
	Copper and Zinc	
	Molybdenum	

The above chart shows how Soil pH directly effects nutrient availability and uptake. All the nutrients are easily available in the neutral pH range of 6-7. Hence it is most important to regularly check and correct your soils pH.



TRACE ELEMENTS MIX

Manutec has a range of high analysis soluble Trace Element products to correct specific deficiencies. If unsure of a specific issue, try our unique product Trace elements. A soluble powder which has all the trace elements together and provides an all in one remedy.



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Available at
BUNNINGS
warehouse



For further information about Manutec Garden products visit – www.manutec.com.au