



Reg. No. K10670 Act. No. 36 of 1947

AgraActivator 4

AgraActivator™ 4 forms part of our Bio Innovation™ range



Description

AgraActivator™ 4 contains a specific ratio of macro and micro-nutrients that are both essential and beneficial for crop production especially during growth stages of high energy demand.

Key Benefits

- Low salt index, minimizing “leaf burn”.
- 100% water soluble.
- High content of available nutrients per kg product.
- No interaction between fertilizer ions.

Composition

Element	Content (g/kg)
Nitrogen (N)	184
Phosphate (P)	136
Potassium (K)	172
Nickel (Ni)	0.153

Key function of elements

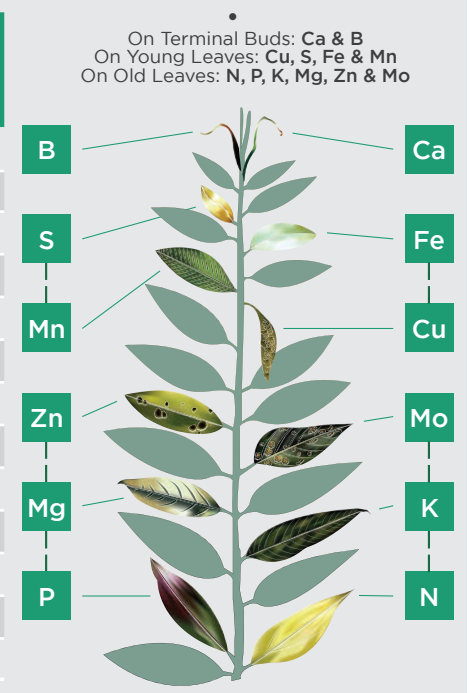
- **N** is part of amino acids, proteins and chlorophyll and is therefore involved in essential processes such as photosynthesis and the growth of crops.
- **P** is necessary for ATP (energy) production and is also crucial for root development and flower formation.
- **K** mainly plays a role in the translocation of sugars and therefore improves the quality of harvestable organs.
- **Ni** is a component of the urease enzyme and is therefore beneficial in N-metabolism.
- **Ni** plays an important role in the function of 9 enzymes including superoxide dismutase (SOD) that protect crops against free radicles.

Application Rates

Crop	Dosage
Row crops	Foliar spray 1-5 kg/ha Via irrigation system 1-10 kg/ha
Vegetable crops	Foliar spray 1-5 kg/ha Via irrigation system 1-10 kg/ha
Fruit Tree crops	Foliar spray 0.1-1 kg/100 L water <i>(maximum 10 kg/ha with maximum 1% concentration)</i>

Average concentration in plant tissue & General deficiency symptoms

mg/kg in dry leaf mass	Element	Deficiency symptoms
15000	N	Yellowing of older leaves & stunted growth
2000	P	Dark green/purple older leaves & stunted growth
10000	K	Yellowing & necrosis of leaf margins for older leaves
5000	Ca	Deformed young leaves & desiccation of growing points
2000	Mg	Interveinal chlorosis of older leaves
1000	S	Yellowing of younger leaves & stunted growth
100	Fe	Interveinal yellowing of younger leaves
20	Zn	Interveinal yellowing and rosettes of young leaves, necrotic spots and twigs die back
50	Mn	Interveinal yellowing of younger leaves with necrotic spots
6	Cu	Yellowing and curling of leaf blades with white tips, die back of shoots
20	B	Thick textured leaves & affect flowering and seed filling.
0,1	Mo	Yellow, wilted and rolled-up leaves with burned margins
0,1	Ni	Small curled older leaves with necrotic tips

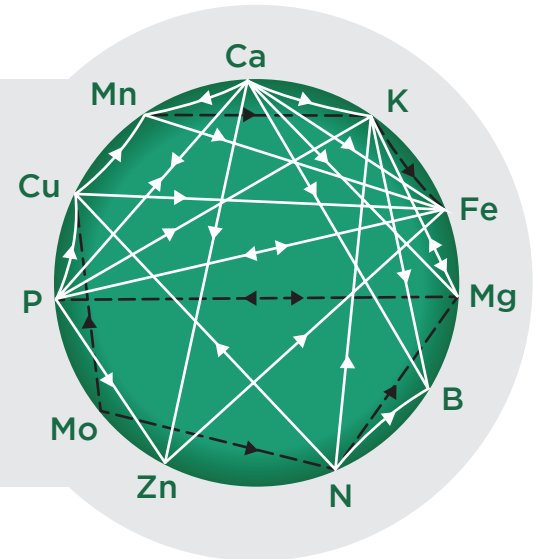


Interactions between nutrients that reduces availability

Macro-elements	Micro-elements
Zn - P	Zn - Fe
Zn - N	Mn - Fe
Fe - P	Mo - Fe
Cu - P	Cu - Fe
Mo - S	Cu - Mo
Zn - Mg	Cu - Zn
B - Ca	

ANTOGONISM →
Decreased availability of a nutrient to a plant due to the action of another nutrient

STIMULATION - - - →
High level of a nutrient increases the demand by the plant for another nutrient



Effect of pH on nutrient availability

