

ECTOL MICRO MAX CONTAINS:

NPK (10.2.7)	These chelated essential elements are usually available in the soil and absorbed by the plant's roots, but the additional chelated NPK when applied as a foliar or even in the soil, have been shown to be highly efficient and beneficial during late growth stages of a crop, at a time when the crop is most demanding and soil applied fertilisers may be depleting.
Sulphur	Essential for the production of chlorophyll and is present in many proteins, enzymes and vitamins.
Copper	Essential for amino acid and protein synthesis, it acts as a catalyst in several enzymes and is important for pollen formation, fertilisation and cell wall strength.
Zinc	Associated with auxin (plant growth regulator), the genetic structures in the plant, enzymes and metabolism, the production of chlorophyll, carbohydrates and membrane integrity.
Manganese	Catalyst in enzymes, activates several metabolic pathways, chlorophyll synthesis and increases the availability of phosphorus and calcium.
Cobalt	Plant specific essential for potatoes and brassica. Essential for nodule forming bacteria in legumes. Important for animal nutrition.
Molybdenum	Essential for the conversion of nitrates to ammonium in plants in the pathway to protein production. Necessary for nitrogen fixing Rhizobia bacteria in legume nodules.
Boron	Essential for pollen grain germination, the growth of the pollen tube, seed and seed wall development. Also, sugar translocation and protein formation.
Iron	A catalyst in the formation of chlorophyll and the molecular carrier of oxygen.
Selenium	Essential for animal and human health and fertility.
Iodine	Essential for animal and human health due to its role with the thyroid hormones and metabolism.
Silicon	<p>Silicon as Monosilicic Acid is absorbed by plant roots from the soil solution, but whilst Silicon Dioxide, the major constituent of sand is common, the unstable oxy-acid is not, so the critically important element is deficient in many plants.</p> <p>The plant's Silicon reduces the impact of insect, bacterial and fungal pests and diseases, and alleviates physical stresses caused by excessive temperatures, wind and dehydration, whilst the Silicon in the cell walls prevents lodging of cereal crops.</p> <p>The biophysical functions of Silicon remain contentious, it is commonly thought that the Silicon plays a role in cell wall structure and integrity.</p> <p>The Silicon in ECTOL Micro Max is a unique chelate recently developed in Australia, which is rapidly foliar absorbed, or if applied to the soil, will not rapidly form complexes with organic and inorganic materials that are not plant available.</p>
Humic and Fulvic Acid	<p>These organic acids are natural compounds forming part of the soil humus fraction. In their natural form they are very large and complex molecules and therefore have varying roles with plant interaction.</p> <p>The lower molecular weight Fulvic acids have a bio-stimulant role within the plant, while both Humic and Fulvic Acids will naturally bind to organic and mineral ions in the soil and can be absorbed by plant roots, carrying the organic molecule or mineral with them. These organic molecules include many vitamins, plant hormones, co-enzymes and natural antibiotics.</p> <p>Fulvic Acids are foliar absorbed; Humic acids are not as they are too big. But the Humic Acids can be split and thereby become plant available.</p> <p>ECTOL Micro Max contains 15% Fulvic and Humic acids in forms that are foliar and root effective. In the process of uptake by the plant they are carrying with them many of the micronutrients within ECTOL Micro Max.</p>

Complete mineral nutrition, with elevated micronutrients, plant elicitors, as well as humic and fulvic acid, for healthy plants, healthy animals and healthy soils.

Foliar or soil applied plant nutrition with Amino Nitrogen, Phosphorus, Potassium and Sulphur. Maximised essential trace elements, Kelp extracts, Humic and Fulvic Acids.

Product Features

- Provides elements critical to plant synthesis, growth, yields, and stress and disease resistance.
- Reduces mineral lock-up in soils.
- Organic acids and plant growth promotants assist plant mineral absorption and translocation.
- Elevated mineralisation of crops and pastures supports improved animal health.
- Increases root growth, sugar production (photosynthesis) and systemic acquired resistance to pests and disease.

Application Rates

Plant Stress

Frost, cold, heat, soil saturation and salinity 3 to 5L/ha will help plants resist and recover from common stresses.

Pasture and fodder crops

To increase growth, Metabolisable Energy (M.E), disease suppression and animal health, apply from 4 to 10L/ha in Spring and Autumn or to grazing crops once cover achieved.

Wheat, Cereals and Canola

Apply 4 to 10L/ha to address deficiencies or 3L/ha to protect against frost.

Corn (Maize)

Apply 4 to 10L/ha post emergence to increase root growth and repeat pre-flowering to increase yields and quality.

Legumes

Spring and Autumn applications of 4 to 10L/ha will boost clover growth and nodulation in pasture. Apply 10L/ha to Lucerne as split applications.

Potatoes

To increase tuber numbers apply 5Lts/ha pre tuber initiation or apply in furrow. To increase tuber size and uniformity, reduce pests and disease and delay die-off apply 2 applications of 5L/ha between bulking-up and harvest.

Tree Crops and Vines

Apply 2 to 4L/ha as split applications after flowering and before fruit set.

Dilution Rates

Add to sufficient water to achieve cover.

Mixing

May be mixed with other crop protection and fertilisers subject to a jar test.

Storage

Store under cover and out of direct sunlight. Contents may settle.

ANALYSIS

10-2-7+S

Total Nitrogen (N)	10%
Total Phosphorus (P)	2%
Total Potassium (K)	7%
Total Sulphur (S)	1.5%

OTHER MINERALS

Magnesium (Mg)	3000 mg/L
Copper (Cu)	1960 mg/L
Zinc (Zn)	3920 mg/L
Manganese (Mn)	6020 mg/L
Cobalt (Co)	784 mg/L
Molybdenum (Mo)	784 mg/L
Boron (B)	4155 mg/L
Iron (Fe)	2355 mg/L
Selenium (Se)	80 mg/L
Iodine (I)	275 mg/L
Silicon (Si)	1250 mg/L
Humic Acid	8.0%
Fulvic Acid	7.0%

Increase Yields, Frost and Heat Mitigation, Pests and Disease Resistance.

ECTOL Micro Max is a foliar or soil applied plant nutrient solution containing Nitrogen, Phosphorus, Potassium and Sulphur, with elevated levels of essential trace elements and soluble plant available Silicon.

ECTOL Micro Max complements standard NPK fertiliser programs, where critically important micronutrients may not be plant available, often leading to disease and stress sensitivity due to micronutrient deficiencies within the plant cells. N.P.K fertilisers increase grain yields, fruit size and vegetative growth, but many of the plant's complex interactions that synthesise proteins and plant hormones, strengthen cell walls, resist fungal diseases and pathogen impact, are compromised when critically important micronutrients are not plant available.

Plant tissue tests frequently indicate deficiencies in micronutrients, not reflected in the associated soil test due to the lock up of the micronutrients in the soil. There are many factors impacting plant-soil interactions especially soil acidity (pH), but other factors include soil temperatures, beneficial fungi activity, nematodes, and other pathogens. The addition of **ECTOL Micro Max** as a foliar or as a soil preparation, will ensure the crops are not deficient and production is optimised.

Micronutrients are often added to dry fertiliser blends as various compounds that are not immediately plant available or are added to liquid fertilisers in such low concentrations that they are ineffective. **ECTOL Micro Max** has 10 to 20 times the concentration of immediately available essential micronutrients typically found in fertilisers and in a more plant available form.



Wheat Demonstration Trial:

A split paddock demonstration was conducted at Eurella in the Central West of NSW, Australia

A grazing wheat crop was sampled at GS 70 (head filling) and the test showed the following:

Wheat untreated (DAP only)	Iron	66ppm	Boron	3.8ppm
Wheat treated with ECTOL Micro Max 5L/Ha	Iron	81ppm	Boron	5.9ppm

Both Iron and Boron are critical for wheat grain fill and many photosynthetic and respiratory systems, with Boron also necessary for the movement of Calcium within the plant. In the above trial, the levels of both these elements, before treatment, were deficient and likely to impact yields.

Application:

ECTOL Micro Max is only required in relatively small quantities ranging from 3 to 10Lts/ha depending on the crop and conditions. Split applications are always recommended and the product can be added to any of the **ECTOL Plant and Crop Nutrients** range or liquid fertilisers generally.

When targeting stress prevention such as frost, heat or disease **ECTOL Micro Max** can be added to **ECTOL Protect & Grow** or **ECTOL Crop and Pasture** as a low-cost stress prevention and plant health programme.

Storage and Handling:

Store under cover and out of direct sunlight. Contents may settle; mix before using. Best used within 12 Months of purchase. Non-toxic and non-flammable. Avoid contact with skin and eyes. Avoid breathing spray and mist.

MICRO MAX

Pack Sizes Available:
1000L, 200L, 20L.