

Vital Max is made with ingredients from chelated sources. It helps in uptake of other nutrients in plants and improves the overall nutrient status of the crop and also improves crop tolerance against all kind of stresses.

### VITAL MAXPRO

Micronutrients are needed in much smaller quantities but their role in normal plant growth is crucial. Their deficiency results in abnormal growth and low quality of harvest. Micronutrient availability is influenced by soil/medium pH. If pH is above 6.0 Iron (Fe), Manganese (Mn), Zinc (Zn), Copper (Cu), Boron (B), start to become unavailable to plant.

To overcome pH based dependency of micronutrients (Fe, Cu, Mn, Zn and B) Agrisol has formulated a foliar product, VITAL MAXPRO that contains micronutrients in quantity and form which are readily taken up by the plant. It is designed to quickly overcome micronutrient deficiencies. In general it improves the overall nutrient status of the crop and improves crop tolerance against all kind of stresses.

### Basic Characteristics of Vital Micros

All Vital Micros are specially formulated for foliar fertilizer by using Agrisol's proprietary ERMP Technology.

**Application:** Suitable for use in greenhouses & open field- through foliar applications.

**Ingredients:** All ingredients are from Chelated sources.

**Solubility:** Soluble in water & easy to mix.

**Deficiency Correction:** Rapidly absorbed through leaves and corrects deficiency of respective micronutrients quickly.

**Compatibility:** Compatible with most pesticides however, we recommend jar test before mixing

**Sulphates or Chlorides:**

Contains no sulphates or chlorides

**Dose:** As a general recommendation use 1 – 2 l/acre, however, for correct dose use soil & tissue analysis as a guide.

### STARIGHT CHEATED MICRONUTRIENTS

Apart from our liquid micronutrients formulae we also carry Iron, Copper, Manganese, Zinc as EDTA and Boron. These Chelates are 100% water soluble with minimum impurities and contains no sulphates or chlorides. Excellent for use in all agricultural operations, especially for greenhouse industry. They are available in following packages and concentrations.

| Micronutrient       | Percentage (%) | Package Size |
|---------------------|----------------|--------------|
| Calcium (Ca)        | 10.0           | 5 & 25 kg    |
| EDTA Copper (Cu)    | 14.0           | 5 & 25 kg    |
| EDTA Iron (Fe) EDTA | 13.0           | 5 & 25 kg    |
| Magnesium (Mg)      | 6.0            | 5 & 25 kg    |
| EDTA Manganese (Mn) | 13.0           | 5 & 25 kg    |
| EDTA Zinc (Zn)      | 14.0           | 5 & 25 kg    |
| EDTA Boron (B)      | 21.5           | 5 & 25 kg    |



#### Head Office

3254-B, 262 Street, Aldergrove, BC

V4W 2X2, Canada

Telephone: 604-607-1344

Fax: 604-607-1348

E-mail: [info@agrisolinc.ca](mailto:info@agrisolinc.ca)

Web: [www.agrisolinc.ca](http://www.agrisolinc.ca)

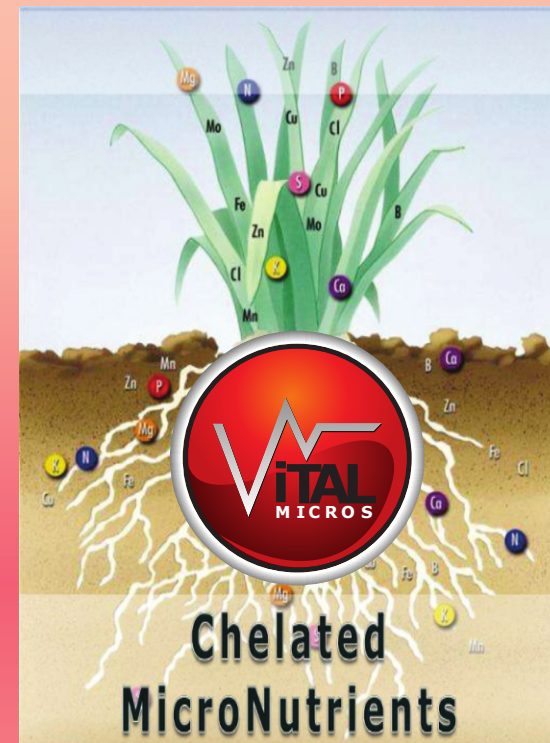
#### East Branch Office

E-mail: [east@agrisolinc.ca](mailto:east@agrisolinc.ca)

Web: [www.agrisolinc.ca](http://www.agrisolinc.ca)

## VITAL MICROS

Micronutrients Liquid Fertilizers



**INNOVATIVE CROP SOLUTIONS**  
Solution de culture innovants



**Agrisol Manufacturing Inc.**  
[www.agrisolinc.ca](http://www.agrisolinc.ca)

## INTRODUCTION

For a normal plant growth & yield, supply of balanced macro and micro nutrients are essential. Though required in minute quantity, micronutrient deficiency can seriously effect yield and quality of the produce. A number of factors can hinder their availability e.g. soil structure & organic matter, pH and presence of other nutrients and so on. To overcome these barriers Agrisol has developed liquid formulae using ERMP Technology, containing one or more micronutrients. These liquid formulae are designed for use in open field or greenhouse conditions as foliar.

Apart from these we also carry water soluble chelated micronutrients such as Iron, Copper, Manganese, Zinc and Boron.

## VITAL BORON (B)

Along with Calcium (Ca), Boron (B) is involved in cell wall structure. Its major roles are cell division, development & their strengthening, hormones development and Calcium movement into plant.

Other important Boron functions are translocation of sugars and carbohydrates, Nitrogen (N) metabolism, formation of certain proteins, regulation of hormone levels and transportation of Potassium (K) to stomata that regulate internal water balance. It also has role in flower production, their retention, pollen germination & pollen tube elongation and fruit/seed development. VITAL BORON(7%) foliar application ensures adequate Boron supply for optimum plant growth. Its spray before flowering stage improves quality of the pollination and later fruit set.

## VITAL COPPER (Cu)

Copper (Cu) is an essential metal that is involved in many physiological processes in plant. It acts as a structural element in regulatory proteins and participates in photosynthetic electron transport, mitochondrial respiration, oxidative stress responses, cell wall metabolism and acts as cofactors in many enzymes. Plants require Cu as an essential micronutrient for normal growth and development at

all growth stages. It also intensify color and flavor in vegetables and color & fragrance in flowers. Vital Copper(4%) is a specially formulated foliar fertilizer to help prevent and quickly correct Copper deficiencies. Vital Cu is made with chelated sources of Cu and organic acids. It ensures steady supply of Cu and suitable for use in greenhouses and open field as foliar spray.

## VITAL IRON (Fe)

Iron (Fe) has a vital role in the manufacturing process of chlorophyll and a component of many enzymes associated with energy transfer, Nitrogen reduction and fixation. Iron is associated with Sulphur (S) in plants to form compounds which catalyze other reactions. VITAL IRON(Fe5%), is a specially formulated foliar fertilizer to prevent and quickly correct Iron deficiencies. VITAL IRON is made with chelated Fe sources. It enhances green color of turf & crops without excessive top growth.

## VITAL MANGANESE (Mn)

Manganese (Mn) is one of the most important micronutrients required for normal crop production. It is vital for photosynthesis, cell repair, helps in triggering natural plant defense and controls supply of auxins and other growth regulators. Its deficiency decreases leaf chlorophyll, auxins and other growth regulators content, thus, reduces photosynthesis, resulting in poor yield and low quality of the produce. Soils with high pH and organic matter keep Mn making it unavailable for plant uptake.

VITAL MANGANESE (Mn4%) is a specially formulated fertilizer to prevent and quickly correct Manganese deficiency. VITAL MANGANESE is made with all chelated and non-sulfate sources of Mn, which can be used along with Calcium (Ca) products. VITAL MANGANESE promotes earlier maturity, which is vital in the short growing season regions of Western Canada or elsewhere. It helps in uptake of other nutrients in plants and improves the overall nutrient status of the crop. Also improves disease resistance due to the triggering of crop natural defence mechanism.

## VITAL ZINC (Zn)

Zinc (Zn) is among the essential micronutrient needed for normal plant growth and has a vital role in plant metabolism. Like most micronutrients, Zinc is immobile in soils. In soil with high pH values and organic matter content, Zinc is kept and making it unavailable for plant uptake.

Zinc plays important role in enzymes activation that ensures certain protein synthesis. Other essential roles are formation of chlorophyll & some carbohydrates, hormone regulation, conversion of starch into sugar and enhance cold tolerance.

Keeping in view the above, Agrisol has formulated a foliar fertilizer, VITAL ZINC (7%) ensures Zn availability to plant. VITAL ZINC is made with all chelated and non-sulfate sources of Zinc, which can be used along with Calcium products. It is an excellent addition to balanced soil fertility program. It is suitable for use in greenhouses & open field-through foliar applications. VITAL ZINC (7%) increases the Zinc and protein content of the grains and enhances tolerance against stress and diseases.

## VITAL MAX

Copper (Cu) and Zinc (Zn) are essential for many physiological processes in the plant which are vital for normal plant growth, development and production. Both have a role in enzymes system, certain protein synthesis and photosynthesis. Apart from this Copper is important for respiration, assists in plant metabolism of carbohydrate and improve flavor and color in vegetables and flowers. On the other hand Zinc is vital for carbohydrates formation, conversion of starch into sugar, improves cold tolerance, and auxins formation. VITAL MAX (Cu 2% & Zn 4%) foliar application can be used to ensure adequate Copper & Zinc supply for optimum plant growth. Copper & Zinc in the product are in readily available form for plant uptake.