KEVA

ORGANIC MICRONUTRIENTS

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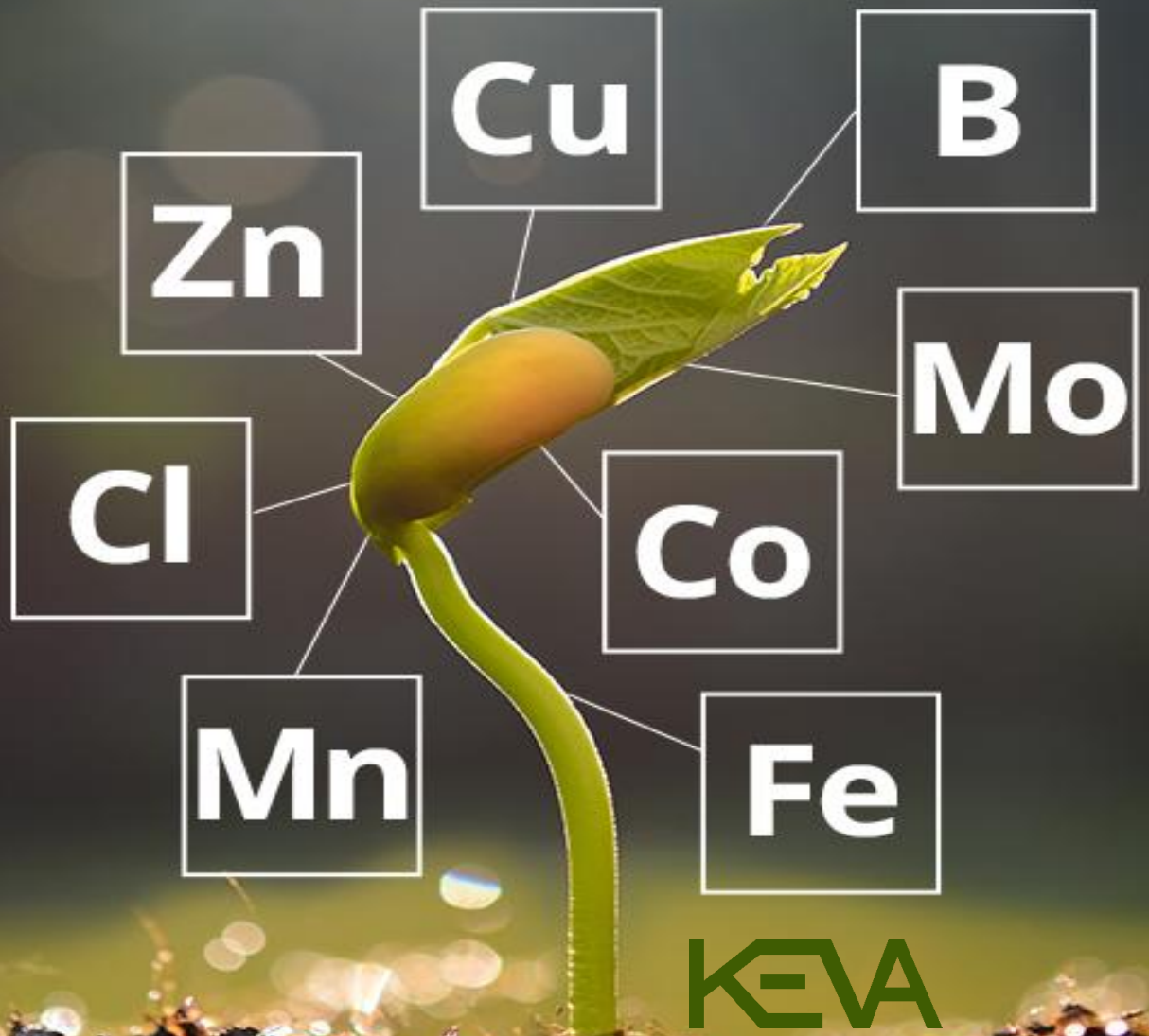
Micronutrients are essential elements that are used by plants in small quantities. For most micronutrients, crop uptake is less than one pound per acre. In spite of this low requirement, critical plant functions are limited if micronutrients are unavailable, resulting in plant abnormalities, reduced growth and lower yield. In such cases, expensive, high requirement crop inputs such as nitrogen and water may be wasted. Because of higher yields, higher commodity prices and higher costs of crop inputs, growers are reviewing all potential barriers to top grain production, including micronutrient deficiencies.

Micronutrients are essential to plant growth, yet are required in much smaller amounts than macronutrients. The eight micronutrients are:

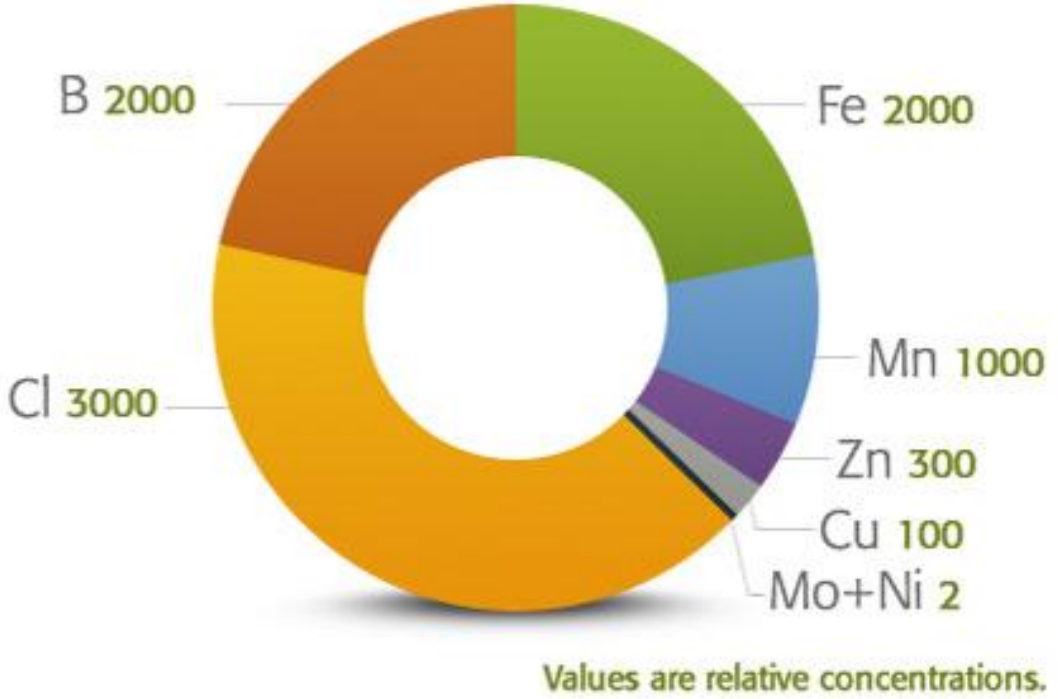
1. BORON (B),
2. CHLORIDE (CL),
3. COPPER (CU),
4. IRON (FE),
5. MANGANESE (MN),
6. MOLYBDENUM (MO),
7. NICKEL (NI), AND
8. ZINC (ZN).



MICRONUTRIENT NUTRITION

Through increased use of soil testing and plant analyses, micronutrient deficiencies have been verified in many soils. Some reasons limiting the incidental additions of micronutrients include:

- ***High-yield crop demands remove micronutrients from the soil***
- ***Increased use of high-analysis NPK fertilizers containing lower quantities of micronutrient contaminants***
- ***Advances in fertilizer technology reduce the residual addition of micronutrients.***



These factors contribute to the significant increase in usage of and need for micronutrients in order to achieve full balanced nutrition.

BORON

Boron (B) is a micronutrient that is essential for cell wall formation and rapid growing points within the plant, such as reproductive structures. Interestingly, while higher plants require B, animals, fungi and microorganisms do not need this nutrient.

Boron (B) exists primarily in soil solutions as the BO_3^{-3} anion – the form commonly taken up by plants. One of the most important micronutrients affecting membrane stability, B supports the structural and functional integrity of plant cell membranes. Boron-deficiency symptoms first appear at the growing points, and certain soil types are more prone to boron deficiencies.

Boron Deficiency in Alfalfa

Deficiency Symptoms

Symptoms of deficiency can vary across crop species, but similarities exist for how nutrient insufficiency impacts plant tissue color and appearance. Nutrient deficiencies are commonly associated with the physical location on the plant (i.e., whether the symptoms are primarily observed on older versus newly formed plant tissue), but these symptoms can spread as the severity of the deficiency progresses.

COPPER

Copper (Cu) activates enzymes and catalyzes reactions in several plant-growth processes. Vitamin A production is closely linked to the presence of Cu as well, and it helps ensure successful protein synthesis. Classified as a micronutrient, only a small amount of this essential nutrient is needed for plant survival.

The presence of copper is closely linked to Vitamin A production, and it helps ensure successful protein synthesis.

Copper Deficiency in Barley

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Symptoms of deficiency can vary across crop species, but similarities exist for how nutrient insufficiency impacts plant tissue color and appearance. Nutrient deficiencies are commonly associated with the physical location on the plant (i.e., whether the symptoms are primarily observed on older versus newly formed plant tissue), but these symptoms can spread as the severity of the deficiency progresses.

IRON

Iron (Fe) is essential for crop growth and food production. Plants take up Fe as the ferrous (Fe2+) cation. Iron is a component of many enzymes associated with energy transfer, nitrogen reduction and fixation, and lignin formation.

Iron Deficiency in Apples

Deficiency Symptoms

Symptoms of deficiency can vary across crop species, but similarities exist for how nutrient insufficiency impacts plant tissue color and appearance. Nutrient deficiencies are commonly associated with the physical location on the plant (i.e., whether the symptoms are primarily observed on older versus newly formed plant tissue), but these symptoms can spread as the severity of the deficiency progresses.

MANGANESE

Manganese (Mn) functions primarily as part of enzyme systems in plants. It activates several important metabolic reactions and plays a direct role in photosynthesis. Manganese accelerates germination and maturity while increasing the availability of phosphorus (P) and calcium (Ca).

- ***Manganese plays a vital role in photosynthesis by aiding in chlorophyll synthesis.***
- ***Soybeans and wheat in particular require more Mn than many crops.***
- ***Manganese is very immobile in plants, so deficiency symptoms appear first on younger leaves, with yellowing between the veins. Sometimes a series of brownish-black specks appear.***
- ***Although Mn deficiencies are often associated with high soil pH, they may result from an imbalance with other nutrients such as calcium (Ca), magnesium (Mg), and Iron (Fe).***
- ***Manganese deficiencies are most common in high organic matter soils and in those soils with naturally low Mn content and neutral to alkaline pH.***

Deficiency Symptoms

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Manganese Deficiency in Avocado

ZINC

Zinc (Zn) is taken up by plants as the divalent Zn+2 cation. It was one of the first micronutrients recognized as essential for plants and the one most commonly limiting yields. Although Zn is required only in small amounts, high yields are impossible without it.

- ***Protein synthesis and growth regulation require Zn. Reduced hormone production due to a Zn-deficient plant will cause the shortening of internodes and stunted leaf growth.***
- ***Zinc is much less mobile within the plant, so deficiency symptoms first appear on the younger leaves.***
- ***Zinc aids synthesis of plant-growth substances and enzyme systems, and is essential for promoting certain metabolic reactions, which are particularly critical in the early growth stages.***
- ***As soil pH increases, zinc availability decreases.***

Deficiency Symptoms

Symptoms of deficiency can vary across crop species, but similarities exist for how nutrient insufficiency impacts plant tissue color and appearance. Nutrient deficiencies are commonly associated with the physical location on the plant (i.e., whether the symptoms are primarily observed on older versus newly formed plant tissue), but these symptoms can spread as the severity of the deficiency progresses.

Zinc Deficiency in Avocado

Crop Response to Micronutrients

Plants differ in their requirements for certain micronutrients. The table at right shows the estimate of the relative response of selected crops to micronutrients. The ratings of low, medium and high are used to indicate the relative degree of responsiveness.

RELATIVE RESPONSIVENESS OF SELECTED CROPS TO MICRONUTRIENTS				
CROP	**B**	**CU**	**MN**	**ZN**
Alfalfa	High	Med	Low	Med
Apples	High	Med	Low	Med
Sugar Beet	High	Low	Low	Med
Citrus	Med	High	Med	Med
Corn	Med	Low	Low	High
Cotton	High	Low	High	Med
Grain Sorghum	Low	Med	Med	High
Lettuce	Med	High	High	Med
Oat	Low	Med	High	Med
Peanut	High	Low	Med	Low
Irish Potato	Low	Med	Med	High
Sweet Potato	High	Low	High	Med
Rye	Low	Low	Low	Med
Soybean	Low	Med	High	Med
Tomato	High	High	Med	Med
Wheat	Low	High	High	Low

Common Micronutrient Deficiencies

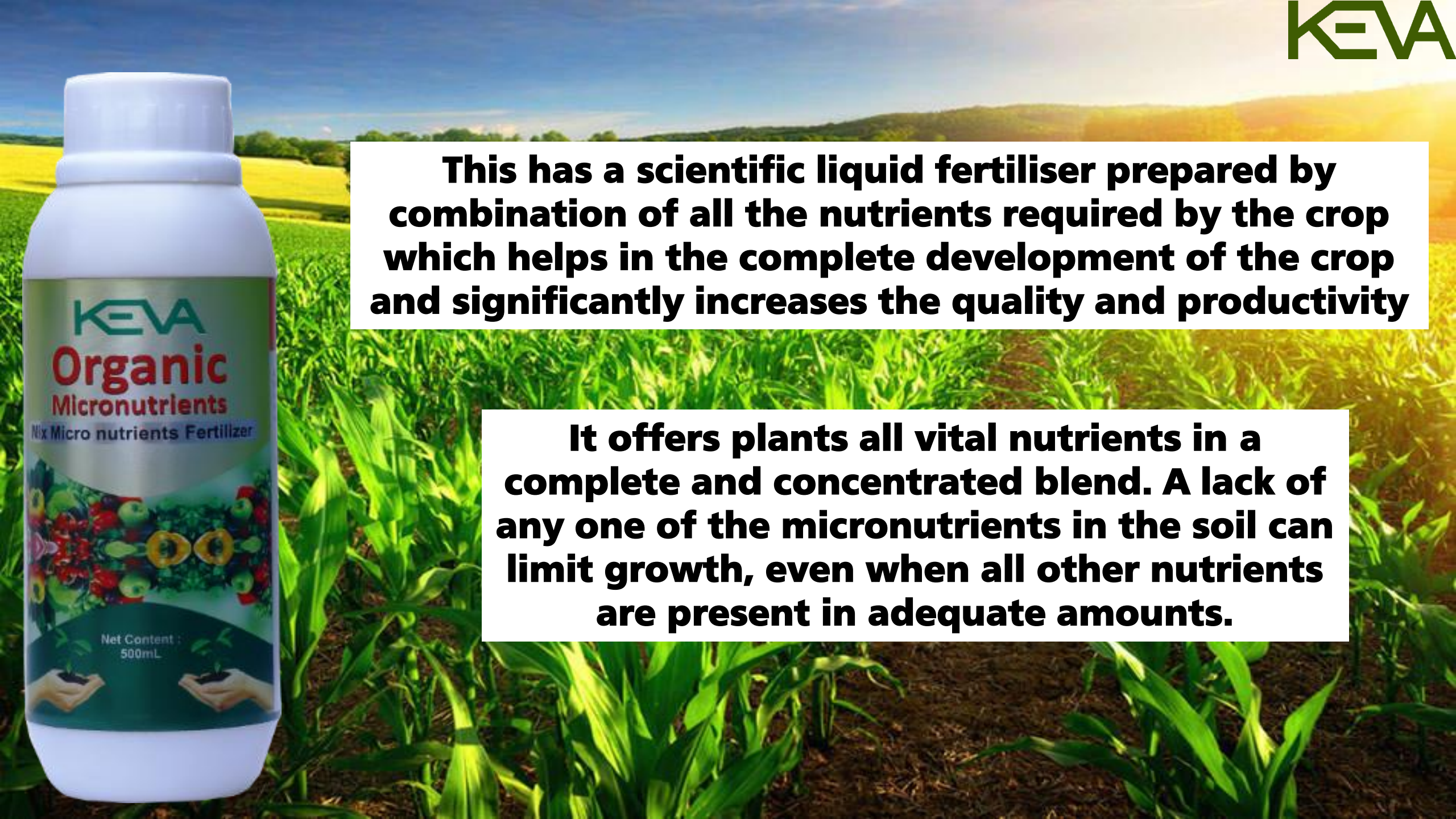
The probability of a micronutrient deficiency is greatly increased on specific soils types and in certain crops. Soil conditions which may lead to micronutrient deficiencies for various crops

Micro-nutrient	Soil Characteristics	Crop
B	Sandy soils or highly weathered soils low in organic matter	Alfalfa, clover
Cl	Occasionally on sandy soils in areas, high rainfall very rare	
Cu	Acid peats or mucks with pH < 5.3 and black sands	Wheat, corn
Fe	Soils with high soil pH, soluble salts and/or calcium carbonate levels	Corn, soybean
Mn	Peats and mucks with pH > 5.8, black sands and lakebed/low-lying soils with pH > 6.2	Soybean, wheat, sugar beets, corn
Mo	Acid prairie soils	Soybean
Zn	Peats, mucks and mineral soils with pH > 6.5	Corn, soybean

That's why we have brought

KEVA

Organic Micronutrients



This has a scientific liquid fertiliser prepared by combination of all the nutrients required by the crop which helps in the complete development of the crop and significantly increases the quality and productivity

It offers plants all vital nutrients in a complete and concentrated blend. A lack of any one of the micronutrients in the soil can limit growth, even when all other nutrients are present in adequate amounts.

Contains all the vital components essential for a plant to grow healthy. These nutrients not only improves the plant's growth but also stabilizes the plant during drought and diseases. It provides the balanced nutrition to the plants and enhances the flowering and fruiting ability.

The best part is that it's easy to use

Let's know how it works

KEVA

- It corrects deficiencies stunting crop growth
- Supports chlorophyll production and improves leaf growth
- Improves micro- and macronutrient utilization
- Can improve yield and crop quality
- Improves micronutrient profile in soil for greater longevity
- Easy to apply

BENEFITS

- Essential for plant growth and development
- Provides balanced nutrition to plants
- Keeps plants healthy, green and enhances aesthetics
- Increase in flowering and fruiting process
- Micronutrient fertilizer for plants and garden soil application

Chemical composition

Fe (Iron)	2.10% w/w
Mn (Manganese)	0.50% w/w
Zn (Zinc)	5.00% w/w
Cu (Copper)	0.20% w/w
B (Boron)	0.50% w/w

DOSE

35-40ml of the product has to be mixed in 15 Liter water

- Shake well before use
- Keep out of reach from children

APPLICATION

Drip irrigation,
Flood irrigation

For Spraying- 500ml for per 1 Acre
Otherwise- 1 Litre for per 1 Acre

For more details, please contact

Thank You