

LIQUID FERTILIZER

NACHURS®  
**MICRONUTRIENTS**



**NACHURS**  
quality in every drop®



# GO WITH THE LEADER NACHURS

- ▶ Highest quality liquid EDTA chelated micronutrients
- ▶ Quality, precision placement, seed and foliar safe
- ▶ Low impurities
- ▶ 100% EDTA chelated
- ▶ Highly stable

NACHURS 100% EDTA chelated micronutrients are designed to be combined with NACHURS liquid starters and foliars, allowing the product to be placed directly with the seed at planting time, or on the plant foliage. NACHURS products have a neutral pH and are low in both salt index and impurities. Placement with the seed allows the EDTA chelated micronutrients along with the available phosphorus and potassium to be taken up at the critical early stages of growth to maximize yield potential.

NACHURS EDTA chelated micronutrients are formulated to mix with NACHURS fertilizers on the plant foliage, allowing for fast absorption into the plant in a very short period of time. This rapid uptake at critical growth stages promotes plant health and increased yield potential.

NACHURS liquid starters and foliars when mixed with NACHURS EDTA chelated micronutrients are immediately available to the plant during the critical early stages of growth.

## WHY USE NACHURS EDTA CHELATED MICRONUTRIENTS?

Even though micronutrients are required in minute quantities, they are essential for healthy plant growth and profitable crop production. NACHURS EDTA chelated micronutrients provide an economical source for correcting nutrient deficiencies and improving plant health. NACHURS micronutrients are fully chelated and can be used in both foliar and soil applied applications.

NACHURS EDTA fully chelated micronutrients are specifically formulated to prevent nutrient tie up. With NACHURS EDTA chelating process, a ring-like structure is placed around the micronutrient, protecting it from being tied up with the soil or other nutrients, thus ultimate nutrient availability to the plant is assured, and deficiencies can be corrected.

The stability of NACHURS 100% EDTA chelated micronutrients makes them compatible with most pesticides and won't settle out or react with other components in NACHURS liquid fertilizers. NACHURS fertilizers and micronutrients are banded for accurate placement, and the micronutrients will remain mobile in the soil.

## MICRONUTRIENT RESPONSES

Crop	Mn	B	Cu	Zn	Mo	Fe
Corn	M	L	M	H	L	M
Soybeans	H	L	M	M	M	M
Wheat	H	L	H	L	L	L
Canola	M	H	H	M	L	
Alfalfa	M	H	H	L	M	M
Oats	H	L	H	L	L	M
Grass	M	L	L	L	L	H
Barley	M	L	M	M	L	H
Dry Beans	H	L	L	H	M	H
Potatoes	H	L	L	M	L	
Rye	L	L	L	L	L	
Peas	H	L	L	L	M	

Legend: H... High M... Medium L... Low



# THE NACHURS ADVANTAGE

# ARE YOU AWARE OF THE BENEFITS?

## WHAT IS A CHELATE?

A chelate is a complex organic molecule that surrounds the nutrient ion. Chelates are used as carriers for micronutrients, to keep them in solution and protect them from reactions that cause the micronutrient to become insoluble and unavailable to the plant.

## THE EDTA DIFFERENCE

Unlike other micronutrient sources such as complexes, partial chelates, and natural organic complexes, NACHURS EDTA chelated micronutrients are 100% available to the crop. Other micro sources contain too little complexing agent and undergo major chemical changes, delivering significantly less micronutrient in a form available for plant uptake. While these sources of micros may offer cost savings at first, they can actually create deficiencies for lack of availability.

## MICRO FACTS

- NACHURS EDTA chelates can be applied to soil at planting time or foliar spray applied directly to the plant.
- Always refer to a soil or tissue report to determine the nutrients needed to correct micronutrient deficiencies.
- Preventing micronutrient deficiencies in crops is far better than correcting them after symptoms appear.

## THE ROLE OF MICRONUTRIENTS

### Zinc (Zn)

Zinc is necessary for starch formation and proper root development. It is also essential for seed formation and maturity. The most common nutrient deficiencies include interveinal chlorosis on older leaves with shortening of the internodal area. This shortening often results in a short compressed plant with a rosetted appearance.

### Manganese (Mn)

Manganese is essential to plants but too much is toxic. Manganese functions in chlorophyll development and serves as a catalyst in several enzyme systems in the oxidation-reduction process. Manganese deficiencies are very similar to iron deficiencies and appears in the younger leaves of the plant first. Color may be pale between the veins of broadleaf plants.

### Boron (B)

Boron is vital to the growth and development of the plant. Without adequate Boron, new growth ceases. It is necessary in the pollination and seed production stages. Boron is essential for maintaining a balance between sugars and starches. A small amount of Boron is beneficial to plants but too much can be toxic to plants.

### Copper (Cu)

Copper is important as a co-enzyme. It is needed to activate several plant enzymes, including building and converting amino acids to proteins. Since Copper is an immobile nutrient, deficiency symptoms usually occur on new growth. Copper deficient plants will become chlorotic and take on a bleached appearance. New growth may die.

### Iron (Fe)

Iron functions as a catalyst in several processes within the plant. It plays a vital role in the formation of chlorophyll and also functions in the respiratory enzymes. Iron serves in the transportation of energy in the plant. Iron is also an immobile nutrient and nutrient deficiencies are usually noticed first in the young leaves. They will first exhibit interveinal chlorosis which will spread over the entire leaf and turn the leaf white. New growth will cease and the leaves will die.

### Magnesium (Mg)

Magnesium is the key element in the molecule of chlorophyll. It regulates the uptake of other nutrients in the plant and acts as a carrier of phosphorous in the plant. Deficiencies usually occur in sandy soils or in soils with extremely high pH. Magnesium deficiencies cause corn plants to develop light yellow or white appearance between the parallel veins.

### Calcium (Ca)

A secondary element in plant nutrition, calcium is needed in the plant to promote early root formation and growth. Improves general plant vigor and stiffness of stalk. With Calcium deficiencies, leaves have a wrinkled or crinkled appearance and in some instances, young leaves may never unfold. Roots are also short and are very bunched.

NACHURS®

# MICRONUTRIENTS

TALK TO YOUR SALES MANAGER/AGRONOMIST FOR SPECIFIC RECOMMENDATIONS

