CCS Nutrients
COASTAL CHELATED SOLUTIONS

The Coastal Chelated Solutions (CCS) family of products are 100% fully chelated, clean, liquid nutrient solutions designed for use in both soil and foliar applications. These products are designed to give growers the right tools to effectively manage the overall fertility level of their crop from start to finish. CCS products promote crop health and proper fertility in high level crop management programs and in programs designed to enhance yield and quality. All Coastal Chelated Solutions products are 100% water soluble.
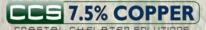
CCS 9% ZINC
COASTAL CHELATED SOLUTIONS

Density = 11.0 lbs/gallon
Each gallon contains
 0.99 lbs of Zinc (Zn)

Zinc is essential for plant growth because it controls the synthesis of indoleacetic acid, which dramatically regulates plant growth. **Zinc** is involved in many enzymatic reactions within the plant and is necessary for chlorophyll synthesis, carbohydrate formation and metabolism, **Zinc** is also involved in the rate of protein synthesis. Most common deficiency symptoms include interveinal chlorosis on older leaves with shortening of the intermodal area which often results in a short, compressed plant with a rosette appearance.

CCS 6% MANGANESE
COASTAL CHELATED SOLUTIONS

Density = 11.0 lbs/gallon
Each gallon contains
0.66 lbs of Manganese (Mn)

Manganese aids in chlorophyll formation and serves as a catalyst in enzyme reactions such as breakdown of carbohydrates, formation of vitamins and nitrogen transformation. **Manganese** also activates certain phosphate-transferring enzymes which in turn affect many metabolic processes. Most plants deficient in manganese have a yellow to olive-green appearance. Younger leaves are usually affected first. As deficiency symptoms progress, interveinal chlorosis becomes more noticeable which is a yellowing between the veins of the leaves.

CCS 4.5% IRON
COASTAL CHELATED SOLUTIONS

Density = 10.0 lbs/gallon
Each gallon contains
0.45 lbs of Iron (Fe)

Iron functions as a catalyst in several processes within the plant and plays a vital role in the formation of chlorophyll. **Iron** also functions in the respiratory enzymes and serves in the transport of energy within the plant. **Iron** is a fairly immobile nutrient and nutrient deficiencies are usually first noticed in young leaves. Leaves will first exhibit interveinal chlorosis which will eventually spread over the entire leaf.

CCS 7.5% COPPER
COASTAL CHELATED SOLUTIONS

Density = 10.6 lbs/gallon
Each gallon contains
0.8 lbs of Copper (Cu)

Copper is essential for plant growth and activation of many enzymes including building and converting amino acids into proteins. Deficiencies interfere with protein synthesis and can cause a buildup of soluble nitrogen compounds in plant tissue. Deficiencies show up as wilting or lack of turgor and the development of a bluish green tint before leaf tips become chlorotic and die. **Copper** deficiency symptoms usually show up on new growth.

CCS 2.5% MAGNESIUM
COASTAL CHELATED SOLUTIONS

Density = 10.6 lbs/gallon
Each gallon contains
0.27 lbs of Magnesium (Mg)

Magnesium is a part of the chlorophyll molecule in all green plants and is essential for photosynthesis. **Magnesium** is a secondary element in plant nutrition and helps activate many other plant enzymes needed for growth, regulates uptake of other nutrients and acts as a carrier of phosphorous within the plant. Deficiencies usually occur in sandy soils or in soils with extremely high pH. Deficiencies show up in older leaves and express differently across various crops. In corn, it appears as light yellow to white appearance between parallel veins.

CCS 3% CALCIUM
COASTAL CHELATED SOLUTIONS

Density = 9.9 lbs/gallon
Each gallon contains
0.30 lbs of Calcium (Ca)

Calcium is a secondary element in plant nutrition and is needed in the plant to promote early root formation and growth. **Calcium** is an essential part of the plant cell wall structure and provides for normal transport and retention of other elements and strength in the plant. Calcium deficiency is usually observed as a failure of terminal buds and apical root tips to develop. Leaves have a wrinkled appearance and young leaves never unfold. Root systems are also short and very bunched.