

ZINC FACTOR



Deficiency Symptoms	Cotton-Bronzing and yellowing, between the veins of the leaf. Growth is retarded, internodals are shortened, and maturity is delayed. The leaves become thick and brittle with upturned margins. Soybeans-Young leaves are abnormally small and turn light green or yellow. All parts of the lower leaves may turn brown and drop. Plants are stunted. On Corn and Sorghums, the lower ½ of the leaf has a broad band of bleached tissue on each side of the midrib. The leaf margins and midribs remain green.
Functions In Plant	Needed in protein formation. Influences consumption of sugar in the plant. Necessary for many enzyme reactions in plant, including the one forming one of the plant hormones.
Mobility In Plant	Slightly mobile.
Mobility In Soil	Immobile.
Influence Of Soil ph	The availability goes down as pH goes up; overliming can induce deficiencies.
Factors Affecting Level	<ol style="list-style-type: none"> (1) High pH (2) Some soils (sandy or muck) have a low total Zinc (3) Removing Zinc in topsoil by leveling or erosion (4) Higher organic matter (such as topsoil) soils are generally higher in Zinc.
Factors Affecting Utilization	<ol style="list-style-type: none"> (1) pH (2) High Phosphate or Magnesium levels may depress Zinc (3) Cold root zones limit uptake (4) A P-Zn ratio of greater than 150 – 1 is likely to depress Zinc.
Level In Soil	2 – 40 lbs. per acre available. 20 – 600 lbs. per acre total.
Adequate Level In Plants	Cotton: 20 – 40 ppm Soybeans: 20 – 70 ppm (The concentration is greatest where growth is greatest)
Correcting Deficiencies	Fertilizer-Band: 2 – 4 lbs. of Zinc per acre Plow-down: 15 – 30 lbs. of Zinc Thorough distribution is very important because of extremely low mobility. Greater efficiency is gained when done in conjunction with Nitrogen or a mixed fertilizer. Foliar sprays-deficiencies can often be corrected early by spraying .25 – 1.0% solution of Zinc.
Sensitive Crops	Corn, Beans, Pecans.
Remarks	Zinc is also closely related to the organic matter of the soil. Zinc problems often show up where N-P-K fertilization is at a high level.