

### It's The Law - Crops Require Zinc

It's not just the casual recommendation from an agronomist that growing plants require zinc (Zn) — it's the Law. It's the Law of plant nutrition.

Zinc is one of the 16 essential nutrients that plants need for growth and reproduction. Zinc is a micronutrient and is required in smaller amounts than some other nutrients but is essential for plant growth. Zinc promotes the cell growth needed for an extended root system, formation of new leaves, for vigorous shoot growth, more even maturity, and improved stress tolerance.

If zinc is limited or in short supply, crop yields and farm profits will suffer, and crop utilization of other fertilizer nutrients, such as nitrogen, will decrease.



Zinc deficiencies tend to occur early in the growing season when the soils are cold and wet. This is due to slow root growth compared to rapid shoot growth. The slow growing root system is unable to take up enough zinc to supply the shoot. Although plants sometimes appear to outgrow this deficiency, the damage has already been done, and yields can still be cut. Wet, cool, cloudy weather during the early growth season increases the possibility of a deficiency.

Zinc is essential to many enzyme systems in plants. It controls the production of important growth regulators which affect new growth and development. One of the first indications of zinc deficiency is stunted plants resulting from shortage of growth regulators.

#### Symptoms of zinc deficiency may include:

- Stunted plants
- Light green areas between the veins of new leaves
  - Smaller leaves (little leaf)
  - Shortened internodes (rosetting)
- Broad white bands on each side of the midrib in corn and grain sorghum