



## THE ZINCSTAR ADVANTAGE

With zinc being an integral piece of the puzzle when it comes to balanced nutrition, Chief Agronomist for Impact Fertilisers, Jack Ellice-Flint believes the focus needs to be shifted back towards this often overlooked micro nutrient. Due to its immobility, there is a critical need to ensure it is placed at the seed at sowing and as such the choice of zinc used in many cropping systems plays a major role in its success.

### Importance of Zinc to Plants

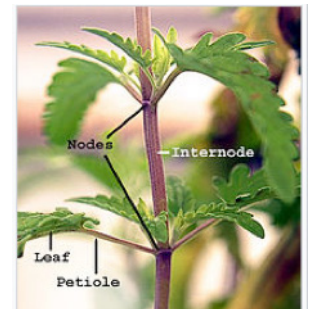
Zinc is a key micronutrient for plant development. It has an important role in a plant's early growth so is often used as a planting fertiliser. Zinc deficiency is one of the more common micronutrient soil deficiencies, especially for cereal crops and is a key constituent in the enzyme systems involved in carbohydrate and protein metabolism. It plays an important role in a wide range of processes, such as growth hormone production, membrane integrity and disease resistance.

### Soils and Crops Most at Risk.

A surprising variety of conditions give rise to zinc deficiencies. Many soil types including chalky, heavy clay, sandy and salty are prime targets. Drought conditions as well as climates with low temperatures can also inhibit zinc uptake. This means soils in the Wimmera and the Mallee areas of Victoria, South Australia and the W.A. are in particular need of zinc supplementation. A range of plants can also suffer with rice, wheat, maize, sugarcane, vegetables and fruits all at risk.

## Detection of Zinc Deficiency

Stunted early season growth, a shortened internode length, pale stripes on leaves and distorted leaves can indicate a zinc deficiency. In wheat plants, symptoms include overall plant height (stunting) and long, pale green stripes on each side of the mid-vein. For optimal crop production soils usually require a reading of over 0.3mg/kg of zinc. Soil testing is important because crop yield can be effected even before the physical signs mentioned above are noticed.



## Factors Contributing to Zinc Deficiencies

Tillage practices that don't adequately disperse the fertilizer means zinc doesn't reach the plant roots. Phosphorus acts as a zinc inhibitor and therefore soils with high P readings can result in zinc deficiency. High pH soils, wet and cold soils and calcareous or limed soils are also limiting factors.

## Zinc Supplementation with ZincStar

Very little, if any, zinc movement occurs within the soil. So it's vital when applying fertilizer, especially using modern tillage methods, that zinc is applied where it's needed right at the plant roots. ZincStar was created by adding zinc during the granulation process, resulting in zinc particles in every granule. This means that compared to dry blends zinc reaches plant roots at a much higher rate with ZincStar.

