

ESSENTIAL FOR LIFE IN ALL ITS FORMS

The Importance of Zinc to Agriculture

Authorised for release by :

Carol Phillips,
Executive Consultant
Communications and Media

The Fundamental Facts

Zinc is essential for all forms of life, whether it be soil, plant, animal or human.

■ Human Health

Zinc deficiency in humans results primarily from reduced dietary intake, and it is reported that as much as 25% of the world's population is at risk.

An effective preventative measure to ensure greater human health is to increase the amount of zinc in the soil, and thereby pass it to productive, healthy and accessible food crops. Zinc plays an essential role in numerous biochemical pathways within the body and is important for the skin, the gastrointestinal tract, the central nervous system, plus the immune, bone and reproductive systems.

■ Soil Health

Soil zinc is an essential micronutrient for plant growth and development and is heavily involved in enzyme systems that regulate the early growth stages.

It is vital for fruit, seed and root system development, photosynthesis, formation of plant growth regulators and crop stress protection. Zinc is also a team player with nitrogen (N), phosphorus (P) and potassium (K) for many of the plant's development processes.

Soils however require zinc in very small amounts compared, for instance, to nitrogen or potassium. Yet, lack of zinc can seriously limit plant growth.

- zinc is required in protein synthesis and growth regulation
- zinc-deficient plants exhibit delayed maturity
- zinc is not mobile in plants; therefore, these deficiency symptoms occur mainly in new growth. This lack of mobility suggests the need for a constant supply of available zinc for optimum growth
- zinc is required in small amounts and high yields are impossible without it

Zinc requirements vary amongst crops, but it is considered that almost half of the world's cereal crops are deficient, and this often leads to poor crop yields. By having a basic knowledge of the dynamics of the soil, and by understanding the uptake and transport of zinc in crops better, a response to overcoming soil zinc deficiency can begin to be implemented in the effort that is required towards sustainable solutions to this global problem.

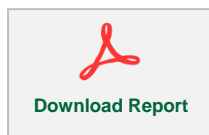
Special Zinc Report

RLF has recently prepared a Special Zinc Report.

It is freely available for our customers and viewers and contains information such as:

- The Global Perspective
- Zinc for Humans
- Zinc for Crops
- What We Know
- The Three Most Effected Cereal Crops
- What We Can Do
- The Experience of our Customers
- RLF Products Designed to Help

This is a comprehensive report and articulates the science of zinc and its important role for healthy, productive crops. It is a clear and easy to understand report and you are invited to download it.



RLF Products Manufactured to Help Reduce this Problem

There are a range of specialty liquid fertilisers developed and manufactured by RLF that address the issue of zinc deficiency. They include:



Rapid Zinc is an ionic form of zinc and phosphorus. Also contained in Rapid Zinc is a supporting balance of sulphur, copper, manganese and magnesium. Rapid Zinc uses advanced rapid delivery system (RDS) technology.

Rapid Zinc acts on ionic form of zinc to ensure rapid and improved uptake efficiency by the leaf. Rapid Zinc uses high quality EDTA chelates to facilitate zinc mobility in the plant when compared to oxide, sulphate and chelate foliar fertilisers. Rapid Zinc is phosphorus based, providing fully available nitrogen phosphorus in the immediate form required by the plant. It is then ready for use to achieve more yield with greater overall result.

Benefits

- The ionic form of zinc used is rapidly taken up by the leaves and is available within hours. Rapid Zinc goes to work quickly and efficiently.
- The **Rapid Zinc** EDTA chelate components facilitate zinc and trace element mobility and transport within the plant to ensure that the plant can utilise the zinc and phosphorus as and where required.
- When applied at 1.5 per ha **Rapid Zinc** supplies enough zinc and copper for 500kg. **Rapid Zinc** also supplies enough phosphorus for an extra 20kg of yield.
- Rapid Zinc** keeps the nutrient balance of the new growth, resulting from the correction of the zinc deficiency.
- The phosphorus in **Rapid Zinc** stimulates metabolic reactions and increases the crop response beyond that of the trace element effect.

Improve the Soil for Next Season

Rapid Zinc has a direct impact on increasing soil organic matter left after the season finishes. This is because Rapid Zinc has increased soil mass and biological activity. Soil improvement creates more microbial activity. Greater soil organic matter helps make soils softer for planting, reduces leaching and improves nutrient and water availability for next season.

Easy to Use

Rapid Zinc is a highly concentrated solution fertilizer with excellent handling capabilities.

Rapid Zinc can be mixed with several liquid nitrogen sources (e.g. 2-3 hours), greater nutrient availability, mobility and efficiency and can deliver better results meaning much higher satisfaction in field.

No Comparison

When compared to other products **Rapid Zinc** gives you fast uptake (2-3 hours), greater nutrient availability, mobility and efficiency and can deliver better results meaning much higher satisfaction in field.

Safe - Quick

Rapid Zinc is buffered at the correct level so it is safe to use with other liquid fertilisers and can be applied to the leaf application of other products.

New Generation

Rapid Zinc is the new generation in available zinc and copper nutrient products. Using the RLF developed RDS (Rapid Delivery System) has ensured that **Rapid Zinc** delivers zinc and phosphorus to the plant faster and more effectively.

Safe - Quick

Rapid Zinc is buffered at the correct level so it is safe to use with other liquid fertilisers and can be applied to the leaf application of other products.



Rapid Max is an ionic form of zinc, copper and phosphorus. Also contained in **Rapid Max** is a supporting balance of sulphur, and other essential nutrients all rapidly taken up by the plant.

Rapid Max acts on ionic form of zinc and copper to ensure rapid and improved uptake efficiency by the leaf. **Rapid Max** uses high quality EDTA chelates to facilitate zinc and copper mobility in the plant when compared to oxide, sulphate and chelate foliar fertilisers. **Rapid Max** is phosphorus based, providing fully available and some chelated nitrogen phosphorus in the immediate form required by the plant. It is then ready for use to achieve more yield with greater overall result.

Benefits

- The ionic form of zinc and copper used is rapidly taken up by the leaves and is available within hours. **Rapid Max** goes to work quickly and efficiently.
- The **Rapid Max** EDTA chelate components facilitate zinc and copper mobility and transport within the plant to ensure that the plant can utilise the zinc, copper and phosphorus as and where required.
- When applied at 1.5 per ha **Rapid Max** supplies enough zinc for 500kg of grain and enough copper for 100kg of grain. **Rapid Max** also supplies enough phosphorus for an extra 20kg of yield.
- Rapid Max** keeps the zinc and copper balance of the new growth.
- The phosphorus in **Rapid Max** stimulates metabolic reactions and increases the crop response beyond that of the trace element effect.

Improve the Soil for Next Season

Rapid Max has a direct impact on increasing soil organic matter left after the season finishes. This is because **Rapid Max** has increased soil mass and biological activity. Soil improvement creates more microbial activity. Greater soil organic matter helps make soils softer for planting, reduces leaching and improves nutrient and water availability for next season.

Easy to Use

Rapid Max is a highly concentrated solution fertilizer with excellent handling capabilities.

Rapid Max can be mixed with several liquid nitrogen sources (e.g. 2-3 hours), greater nutrient availability, mobility and efficiency and can deliver better results meaning much higher satisfaction in field.

No Comparison

When compared to other products **Rapid Max** gives you fast uptake (2-3 hours), greater nutrient availability, mobility and efficiency and can deliver better results meaning much higher satisfaction in field.

Safe - Quick

Rapid Max is buffered at the correct level so it is safe to use with other liquid fertilisers and can be applied to the leaf application of other products.

New Generation

Rapid Max is the new generation in available zinc and copper nutrient products. Using the RLF developed RDS (Rapid Delivery System) has ensured that **Rapid Max** delivers zinc, copper and phosphorus to the plant faster and more effectively.

Safe - Quick

Rapid Max is buffered at the correct level so it is safe to use with other liquid fertilisers and can be applied to the leaf application of other products.



INTELLITRACE ZINC is a high performing chelate for foliar and fertigation.

- 100% EDTA zinc liquid chelate
- Sodium free potassium enriched
- Plant available, highly efficient zinc
- EDTA shuttling action, transporting zinc in the plant is more efficient with potassium
- Stomatal uptake of zinc is increased because potassium assists in opening stomata pores
- Potassium and zinc work hand in hand to increase phloem mobility and photosynthesis
- pH of 6-7 suitable pH range for leaf tissue
- Enables safe use at high concentrations
- Nutrient competing sodium removed
- Excellent tank mix compatibility

Fix your zinc deficiency with IntelliTrace Zinc. Sodium free and potassium enriched for maximum yield potential.

The IntelliTrace product range eliminates the sodium problem in chelates. IntelliTrace is a fully EDTA chelated liquid fertilizer enriched with potassium. IntelliTrace Zinc is high analysis, high efficiency and the 100% chelated zinc is plant safe providing excellent tank mix compatibility with many agricultural chemicals.

Maximum yield potential, requires maximum zinc availability.

Get growing confidence with IntelliTrace.

Comprehensive Range for FERTIGATION FOLIAR APPLICATION

FOLIAR APPLICATION	2-3 L/ha	200L/min water
Lettuce, Brassicas, Carrot, Melons, Potato, Cucumber, Capsicum, Tomato, etc.	2-3	200L/min
Citrus, Macadamia, Graevines, Stone	2-3	200L/min

GET GROWING CONFIDENCE WITH INTELLITRACE

IntelliTrace - efficiently correcting zinc deficiency and facilitating trace element mobility, makes it ideal for horticultural crops and economical for

[Click here to view this PB](#)

[Click here to view this PB](#)

[Click here to view this PB](#)



The content of this media page was accurate and current at the time that it was written. This media release is provided for interested customers and other parties, and will remain a matter of RLF's historical record. Viewed in this context RLF therefore undertakes no obligation to update either material or content.

