ZINC DEFICIENCY ZONES | A WORLD-WIDE PROBLEM FOR OUR SOILS

How RLF RAPID ZINC can Help

INTRODUCTION

Zinc is a trace element found in varying concentrations in all soils, plants and animals and is essential for all forms of life.

Zinc is needed in small but critical concentrations and if the amount available is not adequate, plant and animal life will suffer from the physiological stresses brought about by the dysfunction of enzyme systems and metabolic functions in which zinc plays an important part.

Relatively speaking, this is only a recently discovered scientific fact – with it first being established in the 1940's – however acceptance of this deficiency by many affected countries has only grown since the discovery of widespread zinc deficiency problems in the rice crop, although wheat and corn crops are known to be similarly affected. This has only been within the past 30 years or so.

Some keys points linked to the discovery of widespread zinc deficiency were that it appeared :

- to be linked to the intensification of farming in many developing countries
- to have been brought about by the change from traditional agriculture, which relied upon locally-adapted crop varieties with low inputs of nutrients, to more modern and higher yielding plant varieties that used relatively large amounts of farm fertilisers and agricultural chemicals, especially the macro-nutrients
- that many of the newer crop varieties were more susceptible to zinc deficiency, and with the increase in use of phosphorus this soil deficiency was more likely to occur
- that the sequential cropping of rice and wheat on the same land, (a new style of farming) introduced into both South and East Asia, and made possible by new crop varieties and agronomic expertise has also contributed

In marketplaces such as China, India, Pakistan, Bangladesh and the Philippines for instance, where the need to maximise food production is at its greatest, land uses for rice and other cereal crops need to seriously address the issue of zinc deficiency as it is preventing crops from attaining their full yield potential.

However, it should also be noted that zinc deficiency is not just a problem in developing countries. It occurs widely in most parts of the USA, throughout Europe and across Australia – all technologically advanced countries.

It is a global issue and must be addressed with a high sense of priority.

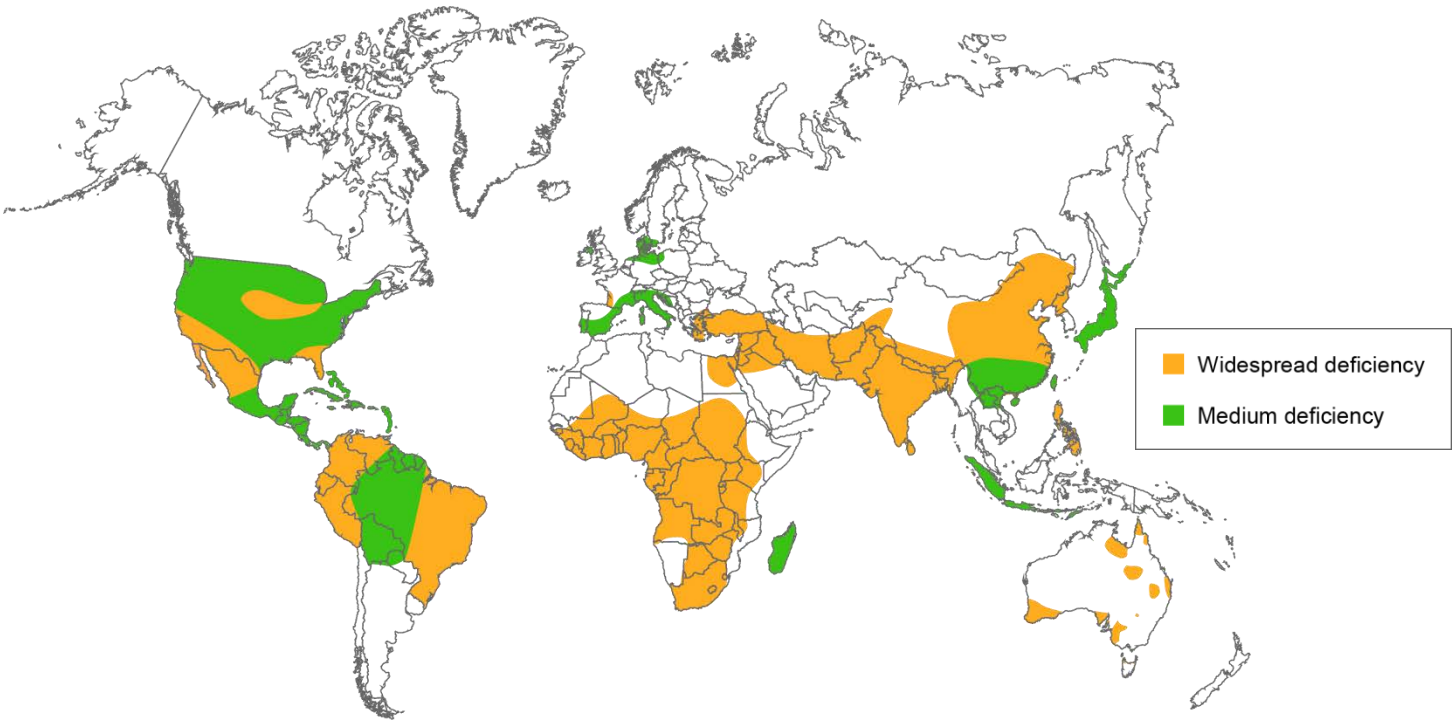
This **Special Report** explores the issue of zinc deficiency in a logical and practical way, and provides information about RLF products that can help combat this crop inhibiting problem.

It will also demonstrate how RLF is leading the way in making the same services of knowledge and understanding, ready access to expert technical advice, and to a range of scientifically engineered liquid fertilisers readily available in today's developed agricultural economies, accessible to marketplaces all over the world. Whether our customers grow in large industrial scale enterprises or farm on small-scale holdings, the same level of expertise and access to appropriate world-leading products is always available.

The **Special Report** contains the following :

THE GLOBAL PERSPECTIVE

The following world map shows the zinc deficiency zones, in two measures (widespread and medium), across the globe.



What this shows is :

- that a considerable area of the world's arable lands already suffer widespread zinc deficiency
- that almost a further 50% of agricultural lands are considered as having a medium deficiency risk, which could well progress into widespread deficiency in future years

This presents farmers and growers with a range of problems, and is particularly prevalent in the mid-west region of the USA, large parts of the South Americas and Africa. It is especially widespread throughout Asia. A large percentage of Australia's agricultural soils are also subject to some level of zinc deficiency, keeping pace with this increasing world-wide trend.




ESSENTIAL FOR LIFE

Zinc is essential for life – in all its forms – whether soil, plant, animal or human.

Zinc for Humans

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.

By increasing the amount of zinc in the soil, and thereby passing it to productive, healthy and attainable crops, is an effective preventative measure to ensure greater human health. 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.

Zinc for Crops

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.

Soil however requires 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, and 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. Rice is a crop significantly effected as it remains the staple cereal crop for millions of people.

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 needed for sustainable solutions to this problem.

WHAT WE KNOW

All farmers and growers know that both yield and financial return are effected significantly by the performance and yield losses associated with soil and paddock variability.

We also know that yield potential of all crops and varieties is heavily dependent on zinc to achieve the very best outcomes possible.

Some of the difficulties farmers and growers are confronted with are :

- the loss of organic matter from the soil
- that every square metre of soil is different
- the quality and nutrient values in the soil are inconsistent
- that whilst macro-nutrients may be easier to find a solution for, dealing with the mirco-nutrients which are measured in much smaller quantities (ppm) pose a lot more problems with soil variability
- the soil mass of the areas they work is so large, that it is almost impossible to fix the micro-nutrient requirement of the soil in any sensible economical or physical way through generally accepted (or current local practice) soil application methods
- that attempting to 'fix the soil' is increasingly more unachievable because of the economic constraints, and that it is not commercially viable to continue practising the same old methods of dealing with the issues associated with soil and paddock variability

RLF Ultra Foliar products are specifically engineered to eliminate the effects of soil and paddock variability by adding high concentrations of the required nutrient directly to the plant. This action therefore, bypasses any soil deficiency - including that of zinc deficiency.

Soil variability is a widespread condition and can only be addressed by the use of highly specialised products and RLF products have been consistently demonstrated to bring about considerable improvement in this regard. Through its rigorous research and development processes RLF has developed a unique concept and highly developed products to address all the problems associated with soil deficiencies and paddock variability.

WE KNOW THAT historically most farming budgets are invested in N, P and K – the three macro nutrients, all being applied as granular fertilisers.

WE KNOW THAT farm management practices are sometimes reluctantly reviewed and changed, even though the body of evidence is steadily building to show the vital role that the micro-nutrient 'community' plays in the establishment and healthy growth of crops and market produce.

WE KNOW THAT micro-nutrients such as zinc are not available to the plant in the quantities that it needs directly from the soil, and that the traditional method of treating an identified zinc deficiency is with a single nutrient foliar spray. RLF can provide these products as required to the farmer – but there is a better way, especially for broadacre or large-scale enterprises.

WE KNOW THAT much more attention is being focused on the minor elements and the essential role that they play in the life and cycle of plant and soil development.

WE KNOW THAT through research and development programs undertaken by scientists (including RLF's technical team of professional soil and plant scientists), the same ground-breaking technology used to produce Broad-spectrum High-analysis fertilisers that ensure that the NPK-inputs achieve maximum gain, can also be modelled to provide many of the same benefits for crops growing in zinc deficient soils.

WE KNOW THAT zinc was one of the first micro-nutrients recognised as essential for plant development and growth.

WE KNOW THAT zinc plays a key role in the many enzyme systems in plants and it controls the production of important growth regulators that influence new growth and development. Therefore, one of the first indications of zinc deficiency is the presence of stunted plants resulting from a shortage of these recognisable growth regulators.

THE THREE MOST EFFECTED CEREAL CROPS

Corn, rice and wheat, three of the world's most important cereal crops, are all affected by zinc deficiency. Clearly, everything that grows in zinc depleted soils will suffer, but of these three major crops, rice will be looked at a little more closely.

Corn (known as maize in many parts of the world) is the crop species which is understood to be most susceptible to zinc deficiency. Corn generally accounts for the highest use of zinc fertiliser per hectare, more than any other crop. With the increase in demand for corn in addition to human food supply, for livestock feed and biofuel production the mitigation of zinc deficiency in this crop is going to remain an important crop nutrition priority.

Wheat is less sensitive than corn, but it is still severely affected by zinc deficiency in many parts of the world, especially the larger broad-scale farming enterprises in Australia, North America, Europe and the countries of the former USSR. Low available zinc concentrations in chalky soils, with a relatively high phosphorus status tends to be the most widely found cause of zinc deficiency in wheat.

Rice is known to be crucially effected by zinc deficiency, and probably attributed to the way in which it is farmed. Approximately two-thirds of the crop is currently produced in flooded paddy systems and while this has many advantages, it is relatively inefficient in its use of water. Alternative, more water efficient rice growing systems are however being developed in some countries. It is known that flooding the soil reduces the availability of zinc to the crop, whilst increasing the concentrations of soluble phosphorus which contributes to zinc deficiency problems. It has been recorded that possibly as much as half of the paddy rice soils are affected by zinc deficiency. When you consider how important this crop is for Asia alone, it could actually involve up to 35 million hectares of its rice producing land. Even though many areas of lowland paddy rice production are being replaced by more water-efficient production systems, it appears that these new systems could also be susceptible to zinc deficiency, still requiring the application of zinc fertilisers.

- zinc deficiency is the most widespread micro-nutrient disorder in rice
- zinc deficiency has actually increased with the introduction of modern crop varieties and crop intensification strategies

Some of the tell-tale signs of zinc deficiency in rice begin to appear between two to four weeks after the transplanting has been done. One or more of the following symptoms will appear :

- dusty brown spots on the upper leaves of the plants showing stunted growth
- uneven plant growth
- increased spikelet sterility in rice
- signs of anaemia, particularly near the leaf base of younger leaves
- leaves lose turgor and turn brown as blotches and streaks appear on lower leaves, then enlarge and coalesce
- a white line may appear along the leaf mid-rib
- the leaf blade will be reduced in size

Under severe zinc deficiency, the tillering stage decreases or can stop completely, and time to crop maturity increases significantly.

WHAT WE CAN DO

Soil and foliar applications of zinc fertilisers can effectively address this problem. But, our knowledge of the cycle of life held within the soil should also be at the forefront of decision-making to ensure a sustainable future.

However most importantly, fertilising with zinc not only increases zinc content in zinc deficient crops, it also increases crop yield.

Balanced crop nutrition by supplying **all** the essential nutrients, is a recognised, cost effective management strategy. Even with zinc-efficient crop varieties, zinc fertilisers are needed when the available zinc in the topsoil becomes depleted, and we already know that the world's soil is under serious strain in this regard.

But for all the reasons already discussed, and what science and research has already taught, we know that a new way of fertilising is needed to deliver the required results in an efficient and sustainable manner.

The world's agricultural sector must transition to more efficient, productive and restorative practices to ensure continued safe food supply and sustainable soils.

One important positive message that farmers and growers can embrace is to ensure **'that the plant has access to all of the nutrients it needs, all of the time'**.

And this can be rapidly and sustainably achieved through the use of RLF liquid foliar solutions.

A NEW PRODUCT RANGE

RLF has developed a special range of Foliar Sprays that concentrate on the micro-nutrients required for plant growth and development – specifically zinc, but also for manganese and copper.

It is called **Rapid**.

RLF's focus on trace elements in liquid fertiliser formulations is recognised world-wide and considerable technical expertise and analysis has been applied to bring a new product range, with a new approach, to the market.

Rapid Foliar

The Rapid product range applies the RLF technology of NDS (nutrient delivery system) combined with a blend of high-quality ETDA chelating agents, together creating the Rapid Delivery System. This Rapid Foliar delivers zinc and a complement of supporting nutrients to the plant very rapidly, and with extreme efficiency and effectiveness.

Rapid Delivery System | **Multi Dentate Chelation** | **Phosphorus Based** | **Low pH Acid Tech** | **High-Analysis Formulation**

THE EXPERIENCE OF OUR CUSTOMERS

Rapid Zinc on Vegetable Crops in Bangladesh

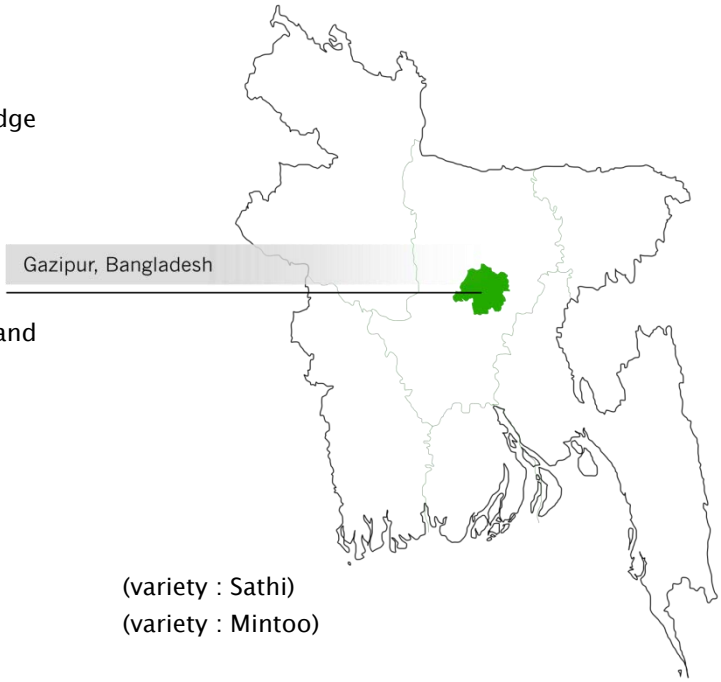
Click here to view in full

During January 2015 to April 2015 several trials were conducted at the Research and Development Farm in Bashon, Gazipur, Bangladesh. These trials were carried out by RLF's partner in Bangladesh, Lal Teer Seed Limited, and the map plots the location of the R & D Farm. This area historically receives approximately 90mm rainfall during these four months from an approximate number of 10 rain days.

Bangladesh

Design of the Trial

The field trial was specifically designed and conducted to judge the effectiveness of four RLF foliar products.



The fertilisers were :

- RLF Ultra Foliars **Broadacre Plus**, **Fruits & Veggies** and **Pasture Plus**
- RLF Rapid Foliar, Rapid Zinc

The vegetable crops trialled were :

- Red Amaranth (variety : Lolita)
- Cabbage (variety : 75-days)
- Spinach (variety : Sathi)
- Tomato (variety : Mintoo)

1. **Spinach**

Results
Rapid Zinc Rapid Foliar + Conventional Practice

3. **Red Amaranth**

Results
Rapid Zinc Rapid Foliar + Conventional Practice

2. **Cabbage**

Results
Rapid Zinc Rapid Foliar + Conventional Practice

4. **Tomato**

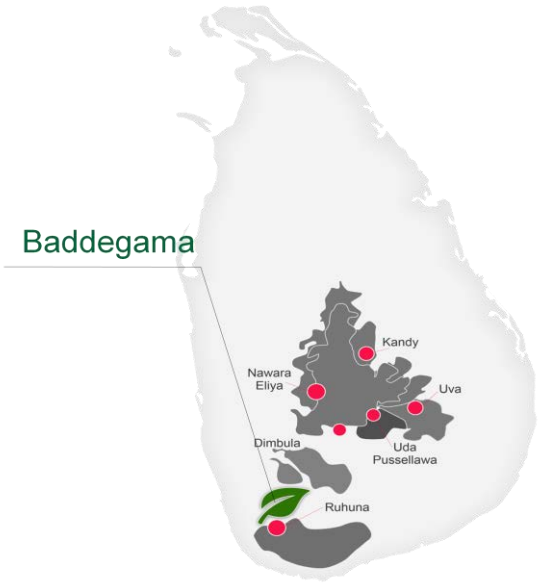
Results
Rapid Zinc Rapid Foliar + Conventional Practice

Rapid Zinc on Tea Crops in Sri Lanka

Click here to view in full

The major tea growing areas in Sri Lanka are :

- Location-1 Kandy and Nuwara Eliya in Central Province
- Location-2 Badulla, Bandarawela and Haputale in Uva Province
- Location-3 Galle, Matara and Mulkirigala in Southern Province
- Location-4 Ratnapura and Kegalle in Sabaragamuwa Province



In addition there are six main principal regions that plant tea. These are Nuwara Eliya, Dimbula, Kandy, Uda Pussellawa, Uva Province and Southern Province.

OPEX FERTIQA (PVT) LTD, in partnership with Rural Liquid Fertilisers (RLF), conducted a field trial in the Baddegama area of Galle District in Southern Province to trial the effectiveness of a new fertiliser product to the Sri Lankan market – RLF's **RAPID ZINC**.

The map opposite identifies the growing areas and shows the trial field location.

Raw Trial Data Results

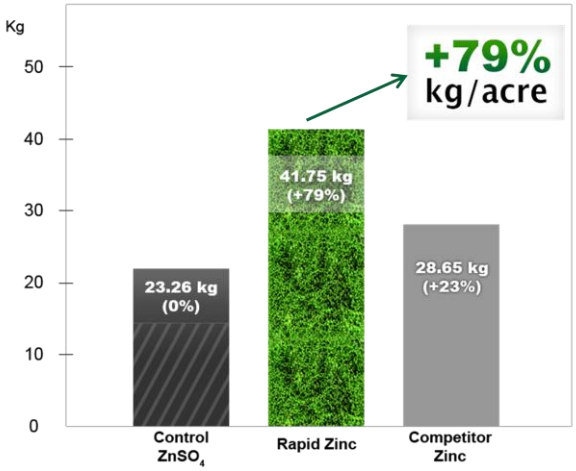
Average Yield Increase per Acre

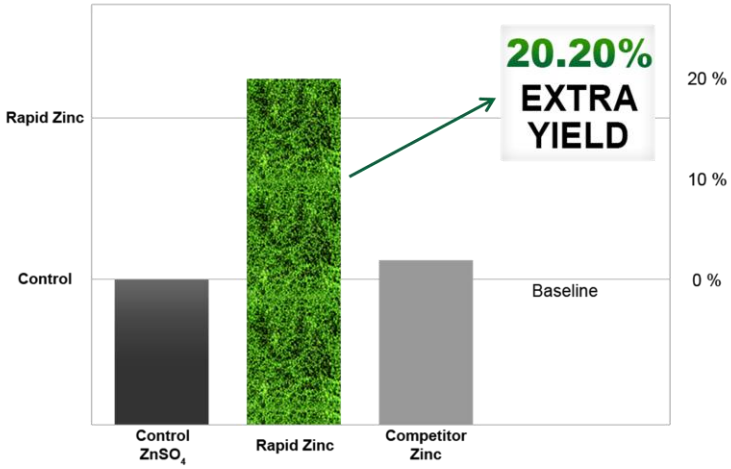
Control ($ZnSO_4$)	+ 23.26kg per Acre (0%)
Rapid Zinc	+ 41.75kg per Acre (+79%)
Competitor Zinc	+ 28.65kg per Acre (+23%)

Dr. H. Nassery Analysis of Trial Data Results

Yield Increase Percentage (%)

Control ($ZnSO_4$)	0.0% Baseline
Rapid Zinc	+ 20.24%
Competitor Zinc	+ 1.83%





WHAT MAKES RAPID ZINC SPECIAL

Rapid Zinc has an impeccable pedigree. It has benefited from the technological advances learned from RLF's Ultra Foliar Range of product.

Rapid Zinc is in ionic form which makes up-take in nutrient delivery far more efficient.

By working with granular fertilisers, zinc deficiency in the soil can easily be addressed.

RAPID ZINC

Rapid Fertiliser

As with other Ultra Foliar products, **Rapid Zinc** is packed with all the nutrients necessary for plant development. It does this by delivering a complete broad spectrum nutrient package – directly to the plant – that supports plant growth, strength and physiology thereby ensuring that NKP fertilisers and herbicides/fungicide are buffered during uptake for maximum gain.

Phosphorus in **Rapid Zinc** Foliar is particularly effective for the uptake of trace elements – and **Rapid Zinc** maintains this – as well as a strong backgrounding of other micro-nutrients, particularly manganese, copper, sulphur and magnesium.

In fact, if a foliar spray doesn't have P it is potentially less effective.

One of the great strengths of **Rapid Zinc** is that it unlocks previously unavailable phosphorus, giving it to the plant to achieve greater yield. This process ensures plants are protected from the problems of soil nutrient variability, and provides the plant with the extra resilience it needs to handle the extremes of soil and other environmental conditions when confronted with them.

Being partially chelated allows it 'safe entry' to the leaf, and once delivered is readily available as it breaks down faster.

Now, specifically formulated products with all of 'the hero' elements, such as those contained in **Rapid Zinc** can be delivered with utmost safety in one single, stable and effective solution.

Rapid Zinc is the new generation in available zinc nutrient products. By using the RLF-developed RDS (Rapid Delivery System) it ensures that the maximum level of nutrient is delivered to the plant rapidly and more effectively. This is because it is buffered **at the correct low pH** to deliver the safe and rapid uptake of nutrients that eliminates leaf burn often experienced with the foliar application of other products.

Rapid Zinc :

- improves the soil for the next season because of the direct impact it has on the increase of soil organic matter left at season's end
- is easier to use, and has excellent handling abilities and compatibilities
- cannot be compared to any other product currently on the market because of all the technological features contained within it

There is great comfort and confidence for the farmer and grower to know that this product :

- is an exact science
- has been built on the strong scientific principles of plant physiology
- embraces the technology of NDS, a Nutrient Delivery System that increases the efficiency in product uptake significantly, through the leaf

THE SCIENCE OF RAPID ZINC

PRODUCT NAME **Rapid Zinc**

THIS PRODUCT CONTAINS

TYPICAL ANALYSIS

GUARANTEED QUANTITY OF ELEMENT			
Phosphorus (P_2O_5)	215.40 g/L	21.54 %w/v	14.15 %w/w

SECONDARY ELEMENTS OR TRACE ELEMENTS			
Magnesium (Mg)	6.30 g/L	0.63 %w/v	0.41 %w/w
Sulphur (S)	54.00 g/L	5.40 %w/v	3.55 %w/w
Zinc (Zn)	85.00 g/L	8.50 %w/v	5.58 %w/w
Manganese (Mn)	34.00 g/L	3.40 %w/v	2.23 %w/w
Copper (Cu)	6.90 g/L	0.69 %w/v	0.45 %w/w

NOTE : Global Standard Analysis

The analysis given above is the global standard and can change or vary from country to country. Always refer to the product specified for each country and the product labels in each country. Analysis may vary as a result of the local country rules, regulations and laws. Generally analysis and formulation is not changed.

SUMMARY OF FEATURES AND BENEFITS

RAPID ZINC

Rapid Fertiliser

N P K
Mg S B
Cu Fe Mn
Mo Zn Co

Key BENEFITS of **Rapid Zinc** are that :

- it overcomes plant nutrient deficiencies due to soil or seasonal factors
- it assists the plant metabolise nutrients more effectively
- it maximises the efficiency of granular fertiliser programs
- it utilises the common nutrients pathways and mechanisms of both root and leaf
- it recognises that roots do not satisfy plant demand for nutrients at all times or in all soil types
- it saves time and plant energy by bypassing the soil and root system for a rapid utilisation of nutrients through the leaf
- it makes sound farm management sense because it of its complimentary nature and ability to support and co-exist with all other fertiliser programs
- it ensures that all of the nutrients are available to the plant all of the time

It is called **Rapid Zinc** for a very good reason.

Every plant cell that it touches gets absorbed. Therefore the uptake of the micro-nutrients needed to support the macro-nutrients in the job that they do, is very fast. This balanced and easy approach is quite different from other fertiliser applications.

Key FEATURES :

Rapid Zinc is a focused specialty formulation that delivers high-performance zinc along with two other micro-nutrients, copper and manganese. It also contains a supporting balance of phosphorous, sulphur and magnesium.

Rapid Zinc uses an ionic form of Zinc and Copper to insure rapid and improved uptake efficiency by the leaves.

Rapid Zinc uses a more dynamic and partial application of high-quality EDTA chelates to facilitate zinc and copper mobility in the plant when compared to oxide, sulphate, and chelate foliar fertilisers.

Rapid Zinc is phosphorus-based providing fully available inorganic phosphates in the immediate form required by the plant to achieve greater yielding outcomes.

Rapid Zinc, with its balanced and measured components is very fast and very efficient.

It moves around the plant as it is needed, and where it is needed.

CONCLUSION

Large areas of arable land across the world have soils known to be zinc deficient.

It has been recognised that the use of increased amounts of high quality phosphorus fertilisers along with new, high yielding varieties of rice, wheat and other crops, often contributes to this level of zinc deficiency, especially where the existing plant-available levels of zinc in the soil is marginal.

In South and East Asia, for instance, rice tends to be the crop most affected by zinc deficiency, due to the effect of flooding on zinc availability. These too are the areas of heavy population with high dependence on rice as a staple food, so there is real imperative to address this issue.

- **China** currently has the largest population in the world, but with only has one third of the world average 'per capita' area of land available to it for cultivation, faces compounding challenges. With land being so scarce, it is essential that crop productivity is not lost through zinc deficiency. It is estimated that half of China's farmland is zinc deficient and requires zinc fertilisation or remediation, especially for corn and rice.

- In **India** and **Pakistan** large areas of zinc-deficient alluvial soils exist, generally it is believed, because of the sequential rice-wheat cropping regime that is undertaken on a large scale to optimise food production. It has been estimated that approximately one half of the soils from all of India's main agricultural areas are deficient in zinc. This could represent as much as 80 million hectares of arable soil.

- In **The Philippines**, 8 million hectares of wetland rice are estimated to be zinc-deficient.

- In **Indonesia** rice accounts for more than half of the energy consumed through food intake by more than 100 million people. Rice cultivation covers approximately 10 million hectares of land throughout the archipelago. The supply and control of water is crucial to the rice cropping system, high-yield varieties are being experimented with, and dryland cultivation as well as swamp and tidal cultivation systems co-exist. Zinc deficiency remains an issue for the populace and in 2011 zinc supplements were introduced into the diets of children and pregnant women.

- In **Australia**, 8 million hectares of zinc deficient land exists in one area alone on the border between South Australia and Victoria. Extensive areas exist in other parts of the country, and notably Western Australia where vast cereal crop environments are established.

As stated, this is a global issue with the same problem with zinc deficiency existing in soils in every growing and cropping environment across the world. No country, region, or farm is immune.

Once zinc-deficient soils have been identified however, the problem is easily and cost-effectively rectified by the application of zinc fertilisers, either to the seed or by foliar spray directly onto the crop.

But this problem of zinc deficiency throws up some significant pitfalls, and the following key points are important to understand :

- one of the most insidious aspects to zinc deficiency is that visible symptoms will often only start to show when severe deficiency status has been reached
- if zinc deficiency is more marginal, yields may be reduced and crop quality impaired without the appearance of obvious symptoms in the crop
- these hidden zinc deficiencies may actually be of greater economic importance than the cases of severe deficiency (those accompanied by clear symptoms), because farmers will not be aware that this zinc deficiency problem exists
- only when there are obvious symptoms will farmers seriously take notice, or be aware that something is wrong and seek advice or commence corrective treatment
- hidden zinc deficiencies may go undetected for several growing seasons without farmers realising that their disappointing yields are due to zinc deficiency
- the cost of lost production due to zinc deficiency can be considerable, especially if the farmer has had the added expense of all the other necessary inputs to achieve high yielding harvests

On a global scale, with the need to produce ever larger quantities of staple foods, in particular it is simply not acceptable for large areas of agricultural land to be producing poor crop yield outcomes as a result of zinc deficiency.

This is a problem that can be easily and cost-effectively rectified.

RLF's Rapid range of products has been designed for this exact circumstance and purpose. **Rapid Zinc** provides this specific risk mitigation service for this very common micro-nutrient deficiency.

This balanced and easy approach is quite different from other fertiliser applications.

Rapid Zinc, with its balanced and measured components is very fast and very efficient.

It moves around the plant as it is needed, and where it is needed.

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Date : 25th August 2015

RAPID ZINC | All of the nutrients, all of the time

CONVENIENT AND EASY TO MANAGE

1000 Litres

Description

Intermediate Bulk Container (IBC). Stainless steel frame for the transport and storage of bulk liquid fertilisers.

Dimensions

Height	1160mm
Width	1200mm
Length	1000mm

20 Litres

Description

Drum (Small Size). Leak proof, narrow mouth, tight end made with HDPE (High Density Polyethylene).

Dimensions

Height	450mm
Depth	280mm
Width	280mm

200 Litres

Description

Drum (Large Size). It is made of UHMWPE (Ultra-High Molecular Weight and High Density Polyethylene). Tamper evident feature.

Dimensions

Height	950mm
Diameter	590mm

5 Litres

Description

Bottle (Large). Leak proof, narrow mouth, tight end made with HDPE (High Density Polyethylene).

Dimensions

Height	295mm
Depth	190mm
Width	140mm

110 Litres

Description

Drum (Large Size). It is made of UHMWPE (Ultra-High Molecular Weight and High Density Polyethylene). Tamper evident feature.

Dimensions

Height	770mm
Diameter	485mm

1 Litre

Description

Bottle. Leak proof, narrow mouth, tight end made with HDPE (High Density Polyethylene).

Dimensions

Height	250mm
Depth	85mm
Width	85mm

500 Millilitres

Description

Intermediate Bulk Container (IBC). Stainless steel frame for the transport and storage of bulk liquid fertilisers.

Dimensions

Height	190mm
Width	70mm

200 Millilitres

Description

Drum (Small Size). Leak proof, narrow mouth, tight end made with HDPE (High Density Polyethylene).

Dimensions

Height	125mm
Width	60mm

250 Millilitres

Description

Bottle. Leak proof wide mouth rounds with screw cap. Made with HDPE (High Density Polyethylene).

Dimensions

Height	135mm
Width	62mm

100 Millilitres

Description

Bottle. Leak proof wide mouth rounds with screw cap. Made with HDPE (High Density Polyethylene).

Dimensions

Height	100mm
Width	50mm

30 Millilitres

Description

Sachet. A small disposable pouch made from plastic lined foil which contains single-use quantity of the liquid fertiliser product.

Dimensions

Height	770mm
Diameter	485mm

10 Millilitres

Description

Sachet. A small disposable pouch made from plastic lined foil which contains single-use quantity of the liquid fertiliser product.

Dimensions

Height	105mm
Width	75mm