



a 'Round The Traps'



Importance of Phosphorus in early Growth

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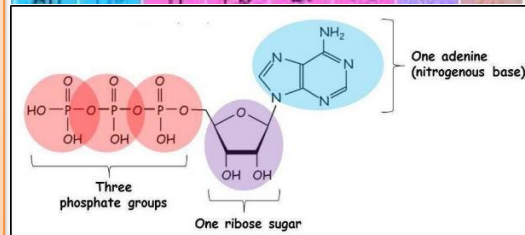
The role of Phosphorus in early plant growth

Everyone already knows that Phosphorus is an essential nutrient for plant growth and is widely used as a fertiliser all over the world, but even by simplifying things, there is a lot more to it than that, especially in a year that we are experiencing so far.

Phosphorous is an Anion (has a negative charge) in the case of Phosphorous, it has three negative charges (---) which makes it extremely probable to being largely "unavailable" to the plant shortly after application, due to its chemical configuration and bonding susceptibility to the soils clay colloids, especially in dry soil profiles. However, do you really understand the essential role that Phosphorus plays in plant energy production, especially in early plant growth?

Here is some more detail adding to the RTT post that we sent out in April 2023. We talk about Phosphorus again now in 2024, as it's such an important element to be focusing on right now, not only with the dry conditions, but leading up to T2 – Z.14 in cereals for example, early Leaf Production in Canola and other crops developing.

So where does energy come from and how do plants produce more? Most understand that energy is from photosynthesis when plants produce glucose. However, this glucose still needs to be converted to energy that the plant can metabolise, this is where energy respiration begins with the Glycolysis pathway, which is a complex chain of biochemical reactions that breaks down glucose to produce two ATP (Adenosine triphosphate). Now this may not seem significant, but ATP is a nucleotide (A molecule that is the basic building block of the nucleic acids DNA and RNA) that captures and produces chemical energy and as you can see from the name ATP, it consists of three phosphate groups, making Phosphorus an essential element for energy production, really important going into winter, with daylight hours and soil temperatures in decline now for several weeks. We will leave it at that for now.



PHOS-TRAK™
Strong Phosphorus Trace Potassium

PHOS-TRAK™

High Analysis Liquid Inject, Pasture and Irrigation Foliar.

Designed to provide a chelated high analysis nutritional input for all types of Liquid Fertiliser and irrigation systems. PHOS-TRAK™ harnesses the upfront strength and energy of Phosphorus in a longer lasting and highly plant available format. Complexed with significant Potassium, Zinc, Manganese and other Trace Elements, PHOS-TRAK™ also contains modified carbohydrates to ensure a positive soil chemistry and soil microbial action. Liquid Inject and 'All-of-Plant' Strategic Foliars need to be designed to ensure targeted delivery and proper nutrient exchange with plant root systems. PHOS-TRAK provides Strong Phosphorus for Better Root Formation for growth, energy and respiration, resistance to pests and disease. The Sulphur, Zinc and Manganese (supporting P) also improve chlorophyll production, CO₂ synthesis, root development and sugar build. Uptake of Boron and Moly assists enzyme and amino acid systems and specifically promote Ca and N uptake. The higher level of Potassium also provides for stronger plant function and optimal fruiting.

Liquid Inject and Fertiligation Preparation

- Fill Cart/ Tank with Water, Then Add PHOS-TRAK™
- Begin Water Injection System, Then open Fertiligation Feed Line.
- Ensure Inline Drip Irrigation or Underground Fertiligation Systems operate with at least 10X Dilution of PHOS-TRAK™

Handling

- Can be Combined with UAN and other Ferti-Foliar Products
- Very Low pH Product. Handle with Care. Refer to MSDS



Suitable for use in Drip and Underground Irrigation for Tree Crops, Viticulture and Horticulture.



PHOS-TRAK™	% w/v
Phosphorus	20.0
Potassium	6.0
Zinc	2.0
Manganese	1.1
Sulphur	0.83
Copper	0.42
Boron	0.17
Molybdenum	0.04

Soil Profile moisture /Phosphorous uptake block.

There are areas where Western Australia have had up to 7 months with little to no rain, meaning they not only lack top soil moisture to seed into but as importantly sub soil moisture. Evidence of this, in these regions, is that the germination often translates into weak plants that have not got access to an A horizon of mineralised phosphorous often being as little as 2CM. Therefore, above ground plant height far exceeds below ground root mass depth, so you can see why we encourage nutrition with a high Phosphorous status being applied to the seed at seed grading, instead of several other treatments being offered.

Minimal root mass is predominately a lack of plant available "P" the energy source to build plant vigour. The season is throwing us a curve ball, so we need to know about practical options to deal with the cards we've been dealt. Feel Free to Call Us about bypassing slow soil mineralising granule "P" with a plant direct liquid "P" proactive approach to immediately generate energy faster as speed of uptake is now yield potential setting priority.



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