



# a 'Round The Traps'

Benefits of Phosphorus now!  
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FERTI-TECH



## Feel Good Story that saw a reward for the Farmer

The images tell the story of how one program grew Pomegranates that the markets had to accept until a Ferti-Tech CSA program grew a far more attractive option. The Wholesaler is happy and paid well for the produce and requested more! Can this same principle be applied in all other food production operations? That's a resounding YES!

The answers to success lay in our CSA system incorporating the capacity of building from a Carbon Based System which creates an environment in the soil to generate a symbiotic relationship between soil biology and plants, that results in a more effective and efficient cycling of all elements required to grow sound Nutritional Produce "Not Just NPK" as we say.



## Mineral Element Focus Phosphorus (P)

With most farming enterprises now, seeding is well underway, hoping to get the crops in before some wetter and much colder conditions arrive, hence why it is a good time to talk about Phosphorus.

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. Take Single Super for example, it contains approx. 8.8 units of Phosphorus, 11 units of Sulphur and 20 Units of Calcium. Calcium as another example is a **Cation** (Contains a positive charge) in regards to Calcium, it has two positive charges (++) and will bind to Phosphorus (---) causing Tricalcium Phosphate, long story short, it's not ideal for what is required in modern Agriculture, so you can see why adding Reactive Carbon is so important, to not only hold things together, but to keep things apart at times..

Phosphorous is most certainly one of the major plant nutrients, as it promotes Early Root Growth, Tillering, Seed Formation and Water Use Efficiency (WUE). Phosphorous is critical in conjunction with Nitrogen at the T2-Z.14 Growth Stage to determine Yield Potential in Wheat as more people are learning each year, similar on other crops also, such as Canola to help the plant with it's "Early Cabbage" effect, (early rosette) but each plant has its own physiology to study and program that is designed around each specific growth phase. Phosphorus also helps the plant with Nutrient Availability, Metabolism, Respiration, used in the production of Carbohydrates, Energy reactions, Storage and Transfer, making up Adenosine triphosphate (ATP), which is the source of energy for use and storage at the cellular level. You can see why we keep driving Phosphorous leading into Winter – as the "Hot Athlete doesn't feel the cold".

Contact us about your Phosphorus options - either solid or liquids, regardless of your farming enterprise.

### Phosphorus 15

# P

30,973

3s<sup>2</sup>3p<sup>3</sup>

**T2 - Z.14**  
YIELD STRATEGIC FOLIAR

**TS**

**WHY IS T2-Z.14 SO IMPORTANT?**

**POINT 1** The C.S.I.R.O established well over 50 years ago that the Seed Count in Cereals is set between Z.14 and Z.16 (Zadoks Growth Stage 14 = 3rd leaf fully visible leaf emerging) and that Final Yield will then be the size and weight of that original seed count.

**POINT 2** Once the Terminal Spikelet is formed in each tiller at the end of Z.16, the Grain Count is Finished.

**POINT 3** Don't focus your Yield Strategy on the Primary Stem. That stem is always going to be favoured by the plant with more assimilates from the Crown - making it larger anyhow. The real chance to push Yield Up is to force the growth of a Larger Spikelet in Tiller 1 and Tiller 2 - which then drives the hormonal and assimilate demand to thicken the T1 and T2 stems and feed them like a Primary Stem - often by taking nutrition away from excess Leaf Mass. More head less leaf.

**POINT 4** Chase Yield at T2-Z.14. Favour T1 and T2 as soon as T2 reaches Z.14 so you can build up their Heads to match Primary Stem. In wheat are the Heads going to be 4 Wide or 5 Wide - are they going to be 9 High, 10 High or More? You can Stimulate T1 and T2 to match Primary Stem if you have The Right Nutrition.

**TAKE HOME MESSAGE**  
Push Yield Potential Hard at T2 - Z.14. Timing is Everything. Hit it Hard. T2-Z.14 is the one point in the life of ALL CEREALS when you can be absolutely certain an Effective Dose of Phosphorus, Nitrogen and Traces will **MAXIMISE SEED COUNT** and **FINAL YIELD POTENTIAL**.

Grain	3 Wide	4 Wide	5 Wide
12%	37	36	45
11%	30	40	50
10%	33	44	55
33%		25%	20%