



a 'Round The Traps'

Setting things up for the Business End
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FERTI-TECH



INCREASING WORM ACTIVITY

Worm Activity is increasing across farms that have changed their management practises, i.e. more focus on nutrition, less chemical intervention, minimal tillage, stubble digestion programs and changing in seeding equipment and harvesting equipment. Every region has its own best setups in regard to how things are done, there is no fixed "ideology". The worm activity is now assisting in cycling nutrition and improving the soil structure, so if you're not seeing them on your farm, why not?



INCREASED ROOT GROWTH

A Crop of Wheat and Vetch sown together – Roots on their way to China. We also had the Penetrometers out (300 PSI at 1 metre Depth), with the additional ground cover from the stubble, it was amazing how soft the soil profile was and how much water is in reserve for the crop. With the recent rains across Victoria, all of that rain would have gone straight in!



TECHNOLOGY BENEFITS

A Drone was filming us Tissue Testing across the Paddocks in this particular example, at the time providing additional insights from way above the crop.



DIRECTION OF THE AGRICULTURAL INDUSTRY

As an overall majority of Australia's wealth comes from the regions, it is paramount that everyone in the Ag Industry, rural communities and in the cities (if you want to remain eating) are supporting each other, regardless of what issues each region is facing, whether it be with Additional Government levies (CFA), Additional "Tax Grabs", cheap imported foods, cost of production, shortage of trained staff, Rare Earth Mining, Wind Turbines and Solar Panels being erected, all on prime farming country, not a problem apparently, but livestock are being targeted for their impact on reaching emission targets, just to name only a few issues that farming communities and landholders are dealing with at the moment and have been for years.

We are all striving to do things better, more secure and more efficiently all the time, but If we continue on the above pathways what impact will it have on Agriculture trying to achieve Net Zero? Examples of things that more than likely will be implemented - Nitrogen inhibitors, urease inhibitors, polymer-coated fertilisers, sulphur-coated fertilisers, controlled-release fertilisers, on farm energy consumption, post harvest methods, production waste, stubble management, cost and carbon footprint of production of inputs and transport to market/processing facilities.

Our clients running our full programs, know already they are well positioned regardless of the direction our policy makers take us in the future.



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SOIL TEMPS

Soil Temperature doesn't really get much lower than this across most parts of Australia, 7.3 Degrees C at 9:00am. Fortunately soil temperature has been on the rise each day now for the past 14 days, day light hours are getting longer and most farms have now had some substantial rain.

BENEFITS OF TESTING

Canola crops very advanced in NSW, looking perfect. After Tissue Testing Results have come back, second foliar applications have been applied already to some crops, including their last Nitrogen compound fertiliser, assisting in mineralisation as the hydroscopic soil pulls the nutrition in just prior to the recent rain events over the weekend.

WHY MEASURE YOUR BRIX

Brix is a measure of the concentration of Carbohydrates (sugars like sucrose, fructose, etc.) and other dissolved solids (like minerals, vitamins, and proteins) in a plant's sap, primarily used as an indicator of plant health and vigor.

Why is Brix called Brix? The word brix came from the German mathematician Adolf Ferdinand Wenceslaus Brix (1798-1870). He refined the methods for measuring sugars in liquids and the term was named after him.

A refractometer is used to measure Brix. It works by measuring how light bends when passing through the plant sap. A higher Brix level suggests the plant is more efficient at photosynthesis (producing sugars) and has a better ability to fight off pests and diseases. Healthy plants with high Brix levels tend to be more resistant to pests and diseases, require less intervention and produce higher quality yields.

How much sugar is in one degree Brix? Brix is a measure of the amount of dissolved solids in a liquid via its specific gravity and is used especially to measure dissolved sugar. A refractometer is used to measure Brix with a range from 0 to 32° Bx. One degree Brix is 1 gram of sucrose in 100 grams of solution, so the higher the sugar content of the plant, the harder it is for it to freeze, we all seen what happened last year with some of the worse frosts in history. As the crops are at now setting themselves up for a strong finish, now is the time to be checking your Brix levels more than ever, take the next step by factoring in what that's all means with Sap pH and Sap EC.



Interpreting Brix With Other Sap Test Results

Brix	EC	pH	Interpretation
High	NA	NA	Good. Balanced microbial activity. Your goal!
Low	Low	Low	Ions are missing. Possibly due to a lack of microbial activity. Carrier elements (N, P) may be lacking. Sodium and potassium are also possibly lacking. Indicates Ca:Mg ratio imbalance. Soil test, correct mineral ratios, build organic matter and microbial levels in soil. Tissue test and foliar spray for correction in this crop.
Low	Low	High	Ions are missing. Possibly due to a lack of microbial activity. Carrier elements (N, P) may be lacking. Phosphates, acetates and organic acids possibly missing. Soil test, correct mineral ratios, build organic matter and microbial levels in soil. Tissue test and foliar spray for correction in this crop.
Low	High	Low	Ions are not complexed. Possibly due to lack of microbial activity. Excess of acid-producing elements (sulphates, metals). May be lacking Ca, Mg, K or Na. Soil test, correct mineral ratios, build organic matter and microbial levels in soil. Tissue test and foliar spray for correction in this crop.
Low	High	High	Ions are not complexed. Possibly due to lack of microbial activity. Elements and ions at excess levels (NO3). May be lacking phosphates, sulphates or magnesium. Soil test, correct mineral ratios, build organic matter and microbial levels in soil. Tissue test and foliar spray for correction in this crop.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20+

Insect resistance begins*

Food is now produced

