



FERTI-TECH



# Broad Acre Cropping



CSA Soil Tests & Soil Fertility Programs

Seed Treatments & Fertiliser Coatings

CSA Program Solid & Liquid Fertilisers

Tissue Tests & Yield Maximisation

Targeted Foliar & Trace Options



Hot, Cold, Wet or Dry  
Frost Prone, Salt-Affected  
Acidic, Alkaline or Non-Wetting  
**CSA HAS THE WAY TO WORK**



"Growing Your Success  
with Every Season"



# Welcome to Ferti-Tech

Ferti-Tech delivers **CARBON SYSTEMS AGRONOMY (CSA)**, the farm-regenerative science that builds fertility, minimises soil harm and maximises input efficiencies.

We manufacture and supply quality fertilisers, foliar sprays and animal health products to ensure the most cost-effective farming outcomes. We have the experience, the expertise and proven track record to increase your farm profitability with a far better soil health and fertility outcome as well. CSA does both naturally.

**Better Soil, Crops and Profit - You Can Measure and See!**

## Step 1 – Principles First – Then Programs – Then Product

### CSA Soil Tests

Manage Soil Fertility and Measure Progress

Isn't your soil your most important asset? Wouldn't you like to know how to 'Grow Your Soils', improve nutrient availability and water use efficiency? CSA provides a detailed insight into any yield limiting factors and the cost-effective ways of addressing them in-season. Find out what you need to do to maximise soil fertility and productivity. Much more than pH, OM, TC, ECEC, Ca/Mg Ratio, available NPKS, Traces is provided. CSA Soil Tests have the answers we need to provide you with a Solid Pathway to Productivity.

### Soil Amendments

### Physical & Chemical Support

Use Lime, Gypsum, Dolomite, Composts, Manures, Reactive Carbon and other inputs wisely. We can give you an excellent understanding of what is needed to improve soil fertility, how much and why. CSA also has options for IN-FURROW soil chemistry and root-rhizosphere chemistry amendments to maximise yield potential at the lowest cost.

### CSA Approved Suppliers

### Vetted & Proven Superior

Ferti-Tech travel Australia dealing with raw materials and soil amendment suppliers.

We don't supply everything you need but we do know where the best quality is found.

**SUPALIME<sup>tm</sup>** (West Aust) **The King of Calcium<sup>tm</sup>** is a blend of highly water soluble (3730ppm) Calcium Hydrox, Calcium Sulphate and Calcium Carbonate for immediately effective Calcium availability. Supalime releases a fast acting and higher water-soluble Calcium into soil 280X quicker than Lime. Smart, Strong and always Supa-Effective.

**HUMAXA COMPOST** (Shepparton Vic.) Specialty Compost Blends directed by Ferti-Tech. A top-quality, experienced facility that NEVER compromises or rushes the process.

### Ferti-SprayMate

Foliar Spray and Cart Water Conditioner

Achieve Increased plant friendly penetration. Ferti-SprayMate turns Farm-based foliar mixes into a faster-acting fertiliser success. A sticker, wetter pH adjustor and cart water conditioner all-in-one. Not requiring any other cart water adjuvants to work well. Very Phloem Effective formulation and a fast-acting Chelator. Easy to mix into Cart and formulated for Rain fastness in 1 Hour.



## Step 2 - Seed Treatments – Fertiliser and Microbe Coatings

### Ferti-Seed Enhancer

Complete & Effective Nutritional Seed Coating

Vigorous Seed Strike and Crop Growth for 4-6 weeks after emergence. The most cost-effective insurance for germination; better root mass and a guaranteed jump start. Best value and smartest fertiliser to provide a high-energy power package to smaller seeds, especially Canola. Ensure fast and assured success with Crop Growth for 4-6 weeks. Can be used with Pickles and Other Seed Treatments. Stimulates carbohydrate secretions from the root system and aids in soil fertility humus formation. A proven performer.

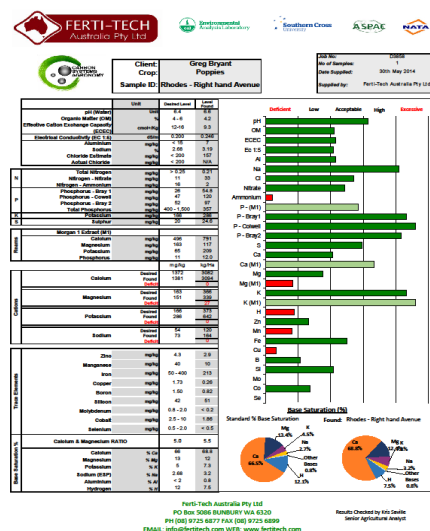
### 2PakTrichoderma

Microbial Root Protection Treatment

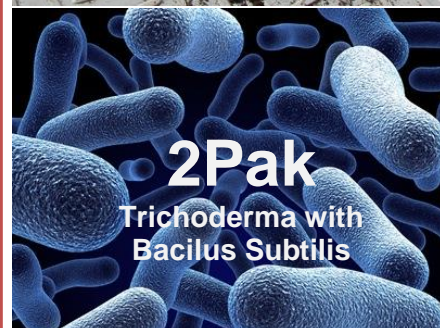
Effective Guard against Fusarium diseases and Rhizoctonia expansion. Also contains high levels of Bacillus Subtilis beneficial defensive bacteria to suppress other soil borne root disease pathogens. 2Pak is a strong coloniser of host roots and quickly establishes a healthy nutrient root zone. Often used with Ferti-Seed Enhancer and the CSA Liquid Inject Program for a very strong control of the soil microbiome in the root 'grow-zone'.



### SOIL TEST RESULTS



No 1 for Root Surface, Root Mass & Sap Phosphorus Productivity



2Pak Trichoderma with Bacillus Subtilis



## Step 3 - CSA Fertiliser Blends & Liquid Inject Programs

### Ferti-RCG

Water Soluble Reactive Carbon Granule

Water-Soluble Reactive Carbon can be a very cost-effective tool to stimulate beneficial (aerobic-dominated) soil biology and is particularly useful when mixed with synthetic NPKS. Fertiliser. Use in a low SOC (Soil Organic Carbon) and low CEC (Cation Exchange Capacity) soil for increased nutrient exchange. Ferti-RCG is also recommended for sandy and sandy loam soils, extreme soil pH (Acid/Alkaline) and extreme soil exchangeable Hydrogen as well as a low microbial activity or a non-wetting soil profile. Prevents nutrient leaching in sands and sandy loams, stimulates Root System exudates and acts as a highly mobile catalyst for Increased Soil Oxygen and Soil Aggregate Flocculation.

### C-Smart-N<sub>tm</sub>

NPKS 18-9-0-7 +Ferti-RCG

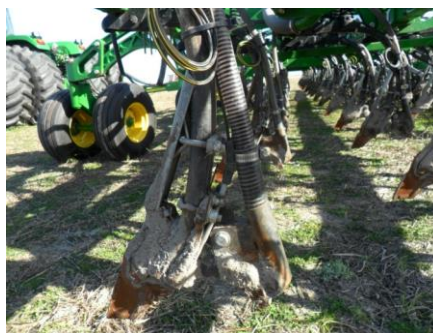
For better soil chemistry balance and fertility use a Bio-Active High Analysis Granular Fertiliser specifically formulated to grow Broad Acre Cereal and Canola crops. Designed to provide a longer lasting Nitrogen growth and Phosphorus energy, CarbonSmart-N<sub>tm</sub> is a High Analysis Fertiliser making the Soil Better balanced and more fertile. Now that's Smarter Farming! The 'smart' in C-Smart-N comes in the catalytic effects of reactive carbon inside the plant rhizosphere to build robustness for drought and frost tolerance as well as insect and disease resistance. A smart fertiliser that builds better soil fertility.

# AGRO-CARBON

# AGRO-TRACE

# NUCAL

# MICRO\*MASTER



**AGROCARBON** Holds nutrients (especially high analysis fertilisers) in a loosely charged carbon bond that permits plants to easily access nutrition, thereby preventing waste and leaching. Enables NPKS and Trace elements to form a nutrient available and fertile area for root systems, microbes, oxygen and water to interact in a highly productive aerobic environment. **AgroCarbon creates the best possible "Grow Zone!"**

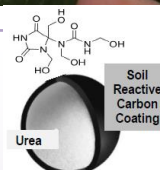
**AGROTRACE** Takes care of the essential **Zinc 6%, Manganese 6% and Copper 3%** needs most crops will have. Entirely compatible with MAP/DAP/SOA/Urea/SOP for all types of BroadAcre; including foliar when combined with Ferti-SprayMate. Essential Trace benefits in a soluble carbon-based fertility 'Grow Zone'. Very Cost Effective.

**NUCAL** Is the most complete and cost-effective **Bio-Active Liquid Calcium 8.15%** Soil and Hort. Fertigation drench for improved soil fertility and plant response. 600X MORE WATER SOLUBLE THAN CAL-HYDROX. 9000X MORE SOLUBLE THAN CAL-CARBONATE. Use this smart bio-stimulant to Buffer Extreme pH, Salt-Affected and Sodic soil profiles.

**MICRO\*MASTER** Designed to build a naturally potent and beneficial microbiome for root systems and leaf surface areas as well. **Ferti-BioSTIM 25%, Fish Emulsion 25%, Black Molasses 25%, Multi-Amino and Fulvic Acid.** Stimulates Carbohydrate exudate from the Root System and Aids Humus Formation and increased Aerobic Oxygenation. Combine with AgroCarbon and Trace Elements for the complete Soil Fertility Package.



### CC-STAK



Make the most of Urea and prevent atmospheric waste.

Carbon Coat STAK Buffers for ion exchange and Nitrogen transfer in the root mass 'Grow- Zone' to prevent Root Clubbing and the many useless forms of root mass and microbial growth that can occur. Holds N in Ammonia Form Longer and prevents NO<sub>2</sub> but is a catalyst for O<sub>2</sub> and CO<sub>2</sub>.



*"First time there has ever been barley growing on these salt areas, as a result of using your CSA Cropping Program"*

Rob - Lake King Dist. Cropping  
(Eastern.WA)

## BIONiK

**BIO-ACTIVE UAN/NITROGEN BUFFER**  
Changes the structure of UAN/ Liquid Urea Synthetic-N to be a carbon-rich composite that mimics Organic-N and is far more efficient as a soil and plant "Naturalized" Nitrogen. No net-loss of Carbon, Soil Structure or Fertility. Stops leaching and volatility. High Lubrication of equipment prevents chemical wear and abrasive damage.

## Step 4 – CSA Yield Potential Foliars

Critical Timing (T2-Z.14)

**CSA Cereals Program has a Strategic focus on Zadoks Growth Stage 14 (Z.14 fourth leaf emerging with tillering underway). The stage where all cereals start determining Spikelet Length and Spikelet Number. More spikelets at a longer length equates to more potential yield. Optimal Phosphorus, Nitrogen and Traces at this stage are THE key determinants for Spikelet Length and Number. T2 refers to the SECOND Tiller achieving Z.14 Status. Primary (Main) Stem IS NOT the Target for Yield increase. T1 and T2 are targeted to lift Yield Potential.**

### Spectrum 12

T2 - Z.14 High Analysis Foliar

High Performance growth formulation that quickly delivers significant levels of key nutrition in a wide cross section of soil types. Guaranteed Phosphorus delivery with strong support from Zinc, Manganese, Sulphur and Copper for optimal strength, stress resistance and production. Designed for Performance in Difficult Soils (- 5 TEC, Low SOC Loams, Sands) Liquid N Compatible and Additional Trace Compatible.

### Ferti-BroadAcre

Balanced High Analysis Foliar

Complete and early use general nutrition formula to follow up Ferti-Seed Enhancer. Contains high elemental Phosphorus for cell growth and yield set. Provides a high level of nutritional energy and a natural resistance to disease and pests. Best applied in 5+ TEC soils where a wide range of supplemental nutrition has best effect. Early use Foliar.

## Step 5 – Sap & Tissue Tests

CSA 'Show me the Numbers'



Nutrient Ratio Balance is far more important for health, vitality and for a better flowering and pollination event. The incorrect Foliar can induce too much green growth or throw vital ratios out of balance even more. Before deciding the final nutrient supply, see what is needed take Tissue Tests and Make Use of our Ferti-Tech CSA In-Field Inspection and Meter Testing for N03, Ca, K, Na, Brix, Moisture, Sap EC.

## Step 6 – CSA 'Stitch in Time' Strategies

Smarter Farming

Carbon Systems Agronomy concentrates on soil chemistry, plant physiology and what the farmers vision is for the farm. Best soil, Best crop and CSA-based Best practice on 'How to Grow It' is the constant goal that keeps the farm profitable and in the 'black'. All the CSA Principles are designed to make that happen in-season, in-budget, safe and secure with a farming soil that progressively gets more fertile and crops more robust.

**GOOD BEGETS GOOD** Soils that grow better crops are 'grown' as well. Grow your soils FIRST by focusing on the plant rhizosphere 'grow-zone' as the bio-active workshop for yield AND a better-quality soil because you farmed it. CSA Liquid Inject Programs do that exceptionally well because we can cocktail an enormous array of biological inputs and chemistry into the grow-zone that you just can't get from Synthetic NPKS.

**T2/Z.14 - SPIKE THE SPIKELET, 'FAT CABBAGE'** Key points exist in the life-cycle of all crops when the big yield decisions are made. Make sure you ready to nail them.

**GROW THROUGH WINTER** CSA Programs force crops to keep growing through winter. That gets you the best result even if you sow late, harvest early or get both.

**FROST / DRY SURVIVOR PROTECTION** Key Elements and Nutrition are required to be in crops BEFORE Frost or Drought hits. The 'Stitch in Time' Focus is a proven success.

## Animal Health & Targeted Trace Element Support

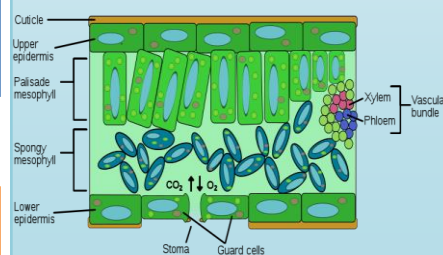
Ferti-Tech have developed a complete range of Trace Minerals and Elements for Key Nutritional Foliar Support. Highly Phloem Effective Calcium, Magnesium, Boron, Potassium, Copper, Zinc, Molybdenum, Manganese, Fish Emulsion, Kelp and BioSTIM.

**FERTI-TECH ALSO MAKE A SUPERIOR RANGE OF CARBON-BUFFERED STOCKLIKS. PROVEN WEIGHT GAINS ON POOR/RANK FEED. PROVEN SUPERIOR STOCK AND LAMBING OUTCOMES.**

## UNDERSTANDING CROP NEEDS VIA PLANT PHYSIOLOGY - AND BY BEING PHLOEM EFFECTIVE

The Phloem is the All-important vascular system that transfers fluid nutrient into the roots, stem, leaves and grain for continued

growth and development. A truly effective Nutritional Foliar must penetrate the Stomata and Waxy Leaf surface layers, transfer across the Mesophyll to the Phloem and travel up and down through the Phloem Sieve Tubes. Truly Phloem Effective also means providing the Right Form of Nutrition that does not cause more cellular damage or consumes more plant energy.



## CSA PROGRAMS CAUTION

- **Canola 'Fat Cabbage' Status needs to be on track by Winter Solstice.**
- **T2-Z.14 and Z.30 Strategic Cereal Yields Foliar Window is Critical for Best Effect.**
- **CSA "Grow through Winter" Program relies heavily on the early use of PhosTraK**
- **In-Field Meter Testing 'Show me the Numbers'**

