

“ We deliver **trusted performance** and **innovative solutions** that leave the **WORLD BETTER** ”

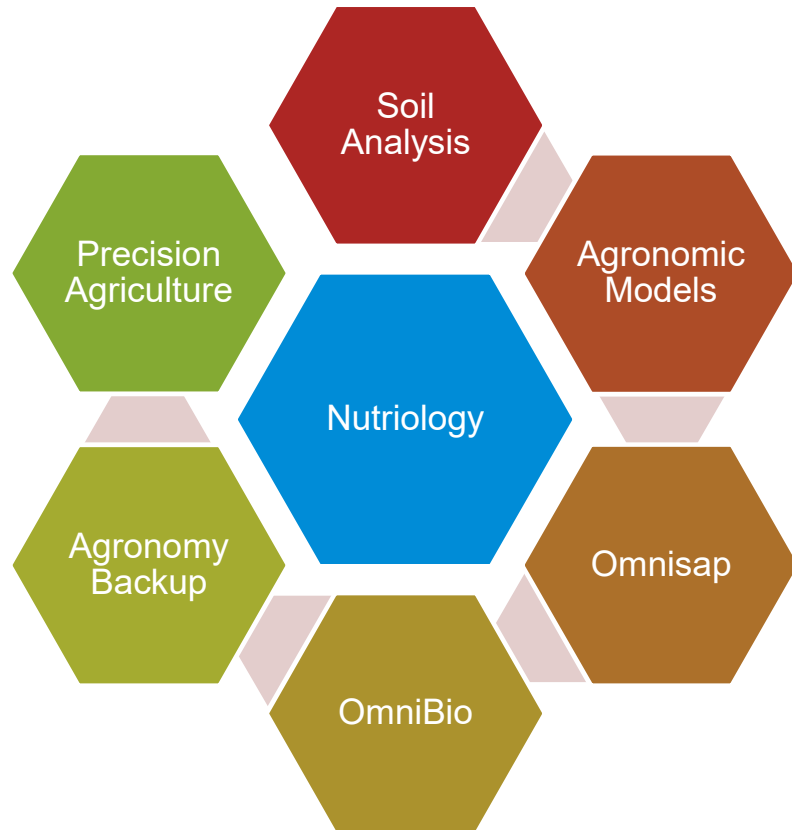


Omnia Australia

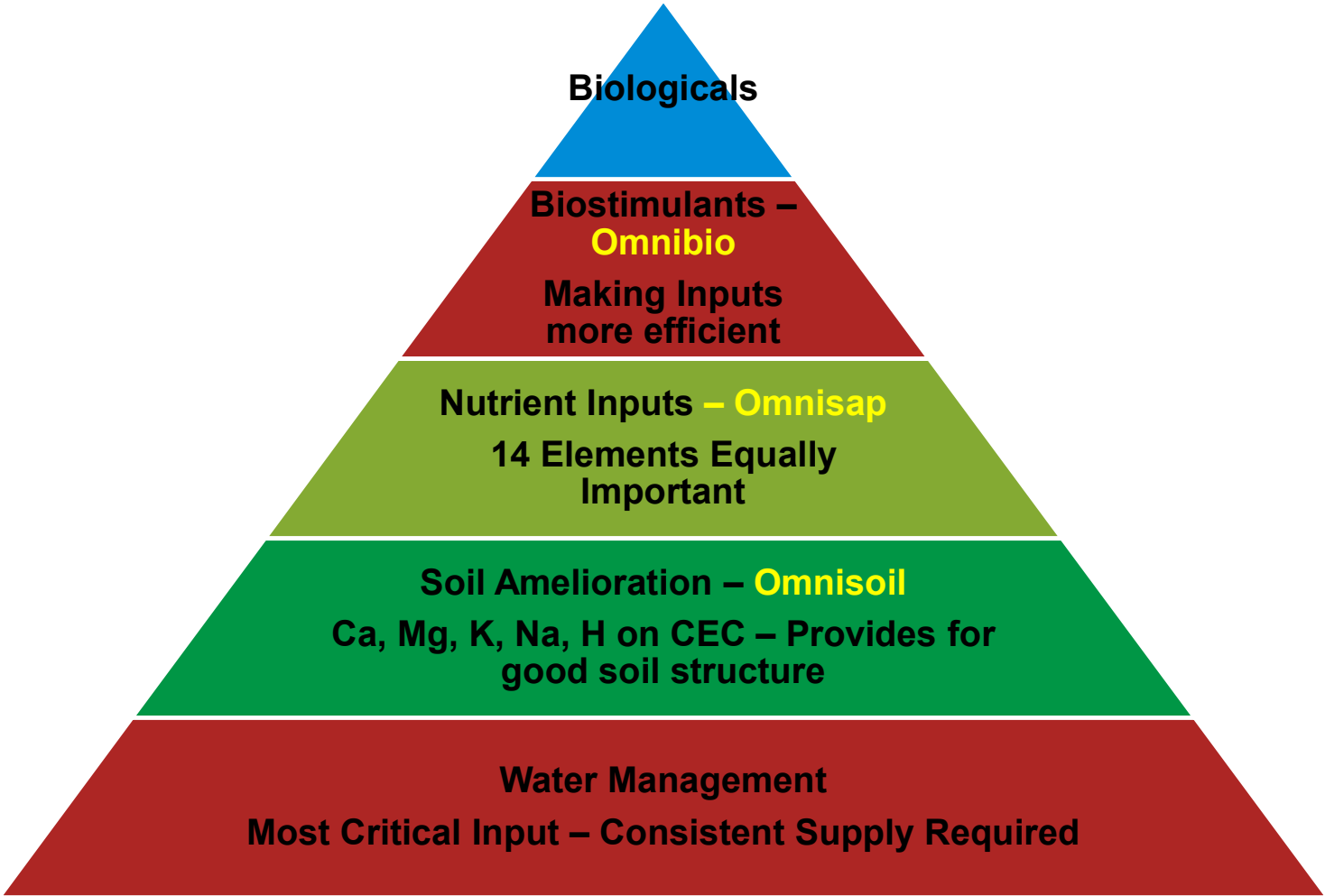


- Based at Morwell, SE of Melbourne
- Began operations in Australia in 2004
- Producing 80,000L batches of K Humate
- New drying plant currently under construction

Why Omnia?



Setting Priorities



Documented effects of Kelp extracts

- Increased root and shoot elongation
 - Initiation of flowering
 - Increased leaf chlorophyll content
 - Higher antioxidant levels (lycopene, lutein, Vit C etc)
 - Increased cell division
 - Improved seed germination
 - Greater stress, frost & drought tolerance
 - Increased nutrient uptake
 - Better disease resistance
 - Higher microbial activity (leaf and soil)
-
- Higher oil content in olives
 - Increased soil water holding capacity
 - Longer fruit storage life
 - Reduced trace element deficiencies
 - Altered gene expression
 - Increased production of endogenous PGR's
 - [Increased yields](#)
 - [Increased quality](#)
-
- Source: Agricultural uses of plant biostimulants 2014
Pamela Calvo et al

Omnia's Kelp Options



- Acidic based cold enzymatically digested Australian Bull Kelp



- Alkaline based, processed by alkaline hydrolysis Australian Bull Kelp



- Acidic kelp in combination with a P & trace element nutrient package.

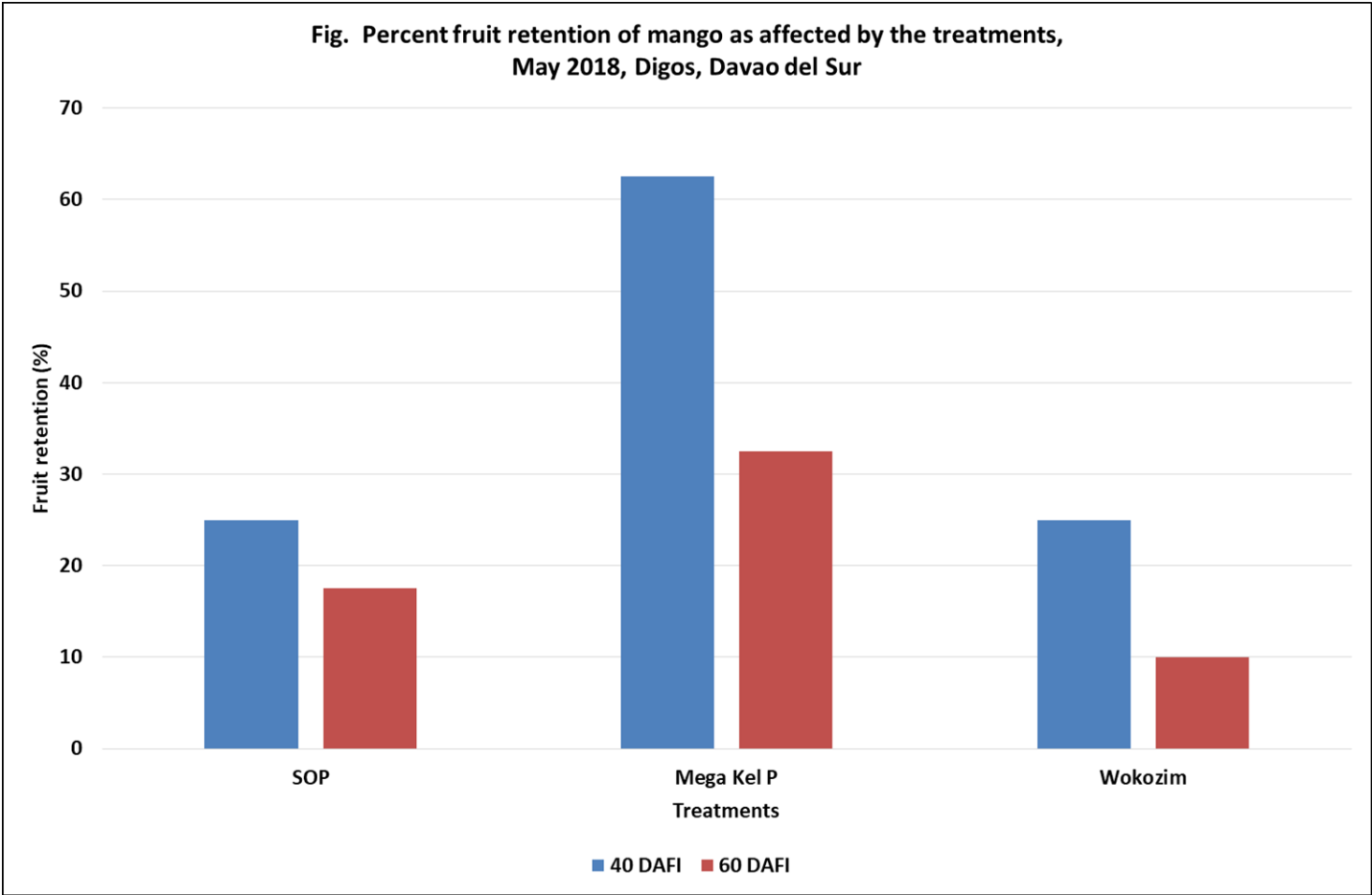
Mega Kel P nutrient analysis

ANALYSIS

ELEMENT	%W/V
Nitrogen (N)	4.00
Phosphorous (P)	9.00
Potassium (K)	2.10
Sulphur (S)	2.70
Manganese (Mn) EDTA	1.90
Magnesium (Mg)	1.30
Zinc (Zn) EDTA	1.30
Boron (B)	0.22
Copper (Cu) EDTA	0.23
Iron (Fe) EDTA	0.18
Molybdenum (Mo)	0.03
Cobalt (Co)	0.02
Amino Acids	

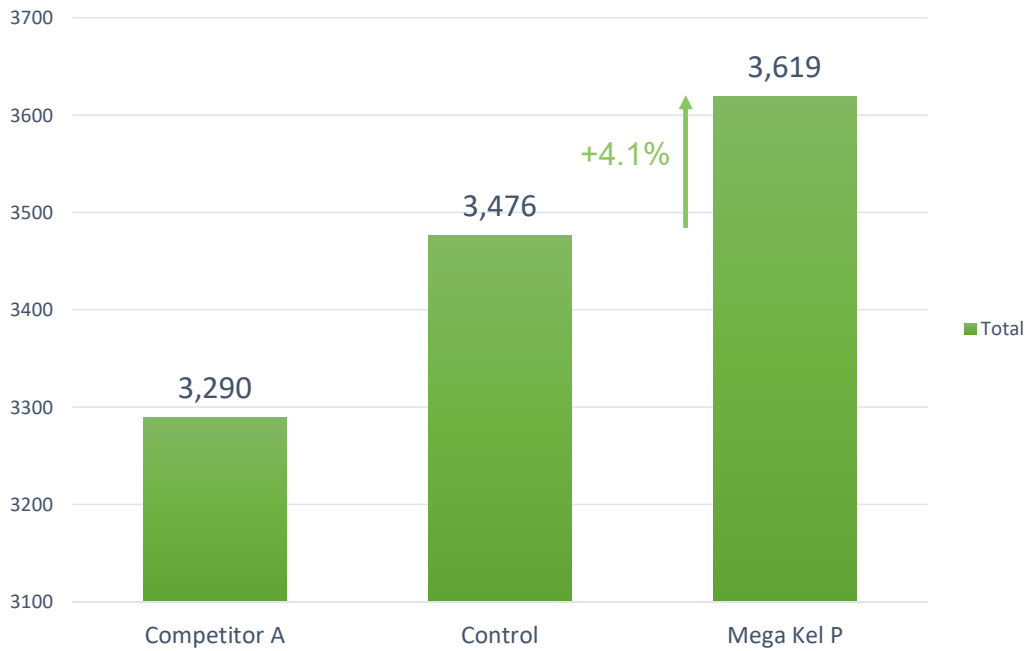
- Kelp alone is a stimulant
 - Like putting foot on accelerator
- No fuel, no action
- Mega Kel P combines nutrient pack to fuel the response from the kelp content

Fruit Retention - Mangoes

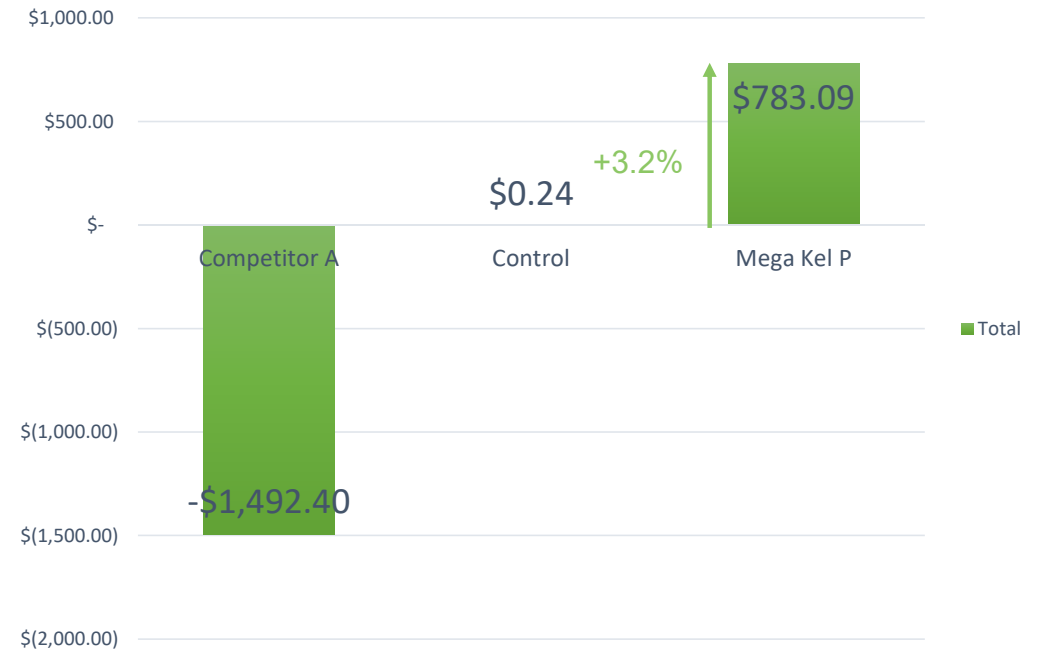


Mega Kel P on Almonds, Robinvale Australia 16/18

Kernel Weight, Kg/Ha



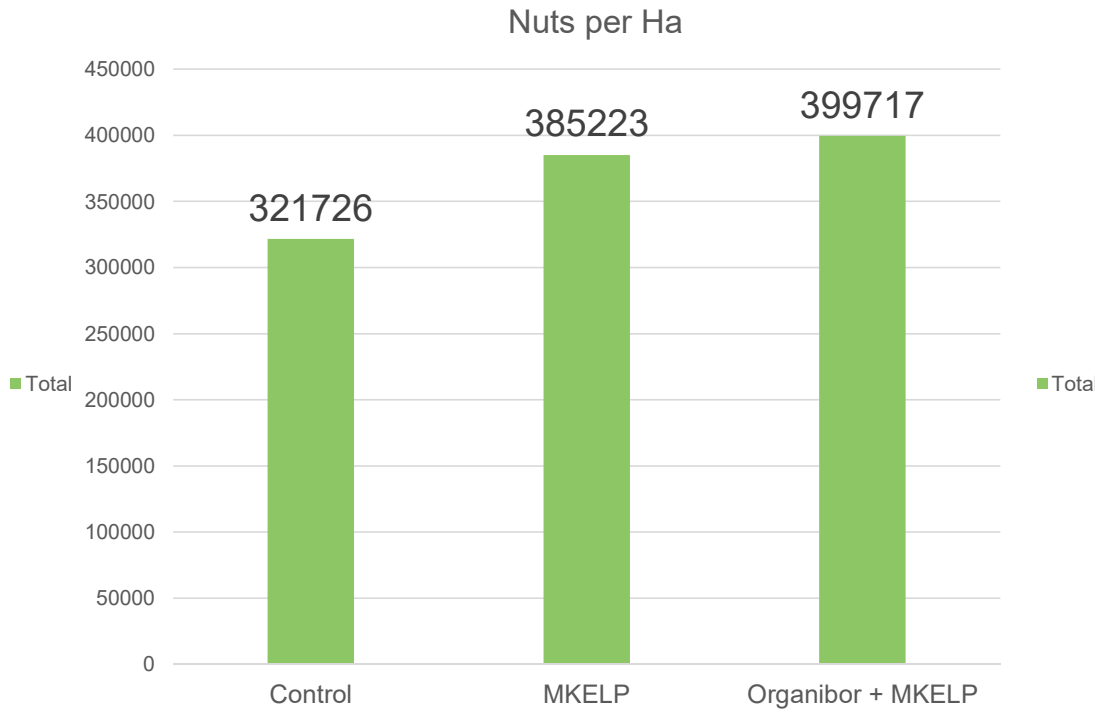
Margin Increase over Control



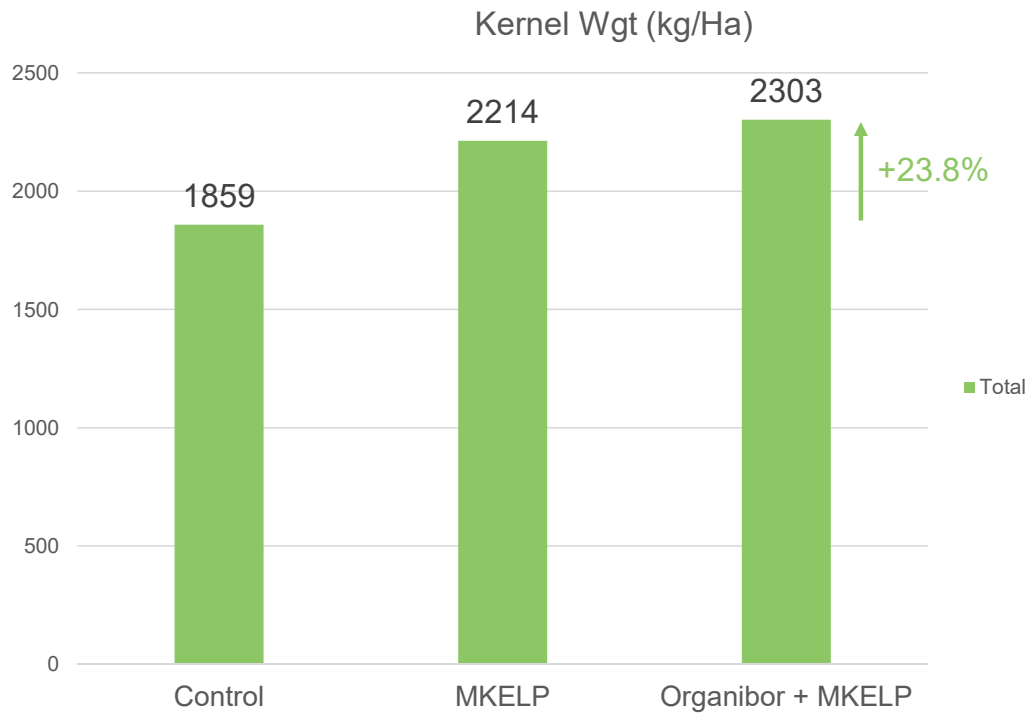
Mega Kel P on Walnuts, Tabbita Australia 18/19

- Mega Kel P @ 7 L/Ha applied foliar 3 times, two weeks apart from leaf out to stone hardening
- Replicated trial over two seasons
- Improvement of an extra 400 kg/Ha of kernel, or 23.8% increase average over two seasons
- Improved gross margin of over AUD\$2900/Ha after product cost.

Mega Kel P on Walnuts, Nut size and Number/Ha



Mega Kel P on Walnuts, Kernel Weight

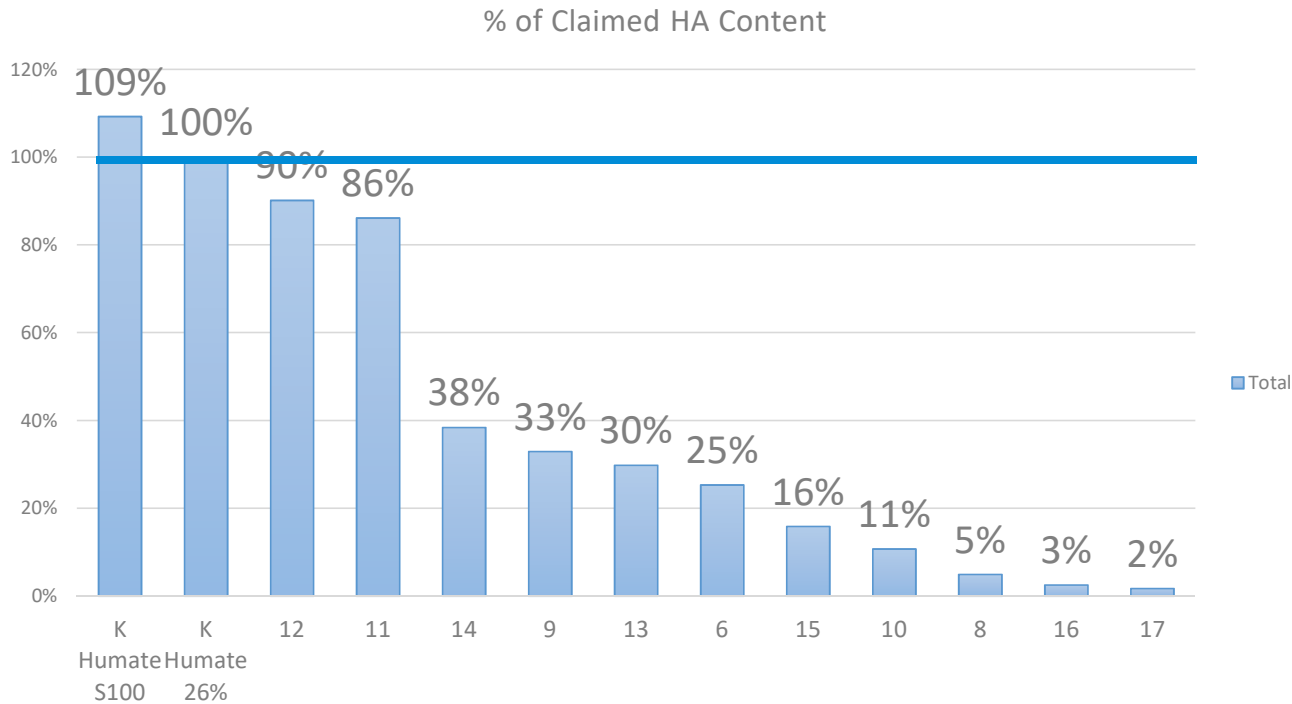


- Return per hectare increased by over AUD\$2900/Ha after product cost
- Bulk of increase due to increased nut numbers, showing again that Mega Kel P helps with nut retention

Documented effects of Humic acids

- Enhanced nutrient uptake
- Increased total soluble sugars
- Increased shoot and root growth
- Increased water use efficiency
- More flowers per plant
- Decreased uptake of sodium
- Enhanced number of lateral roots
- Increased soluble solids
- Increased ascorbic acid levels
- Increased SPAD readings
- Increased oil yield
- Increased protein content
- Increased mitotic sites on roots
- Enhancement of phenylpropanoid pathway
- Increased root length and root surface area
- Improved acclimatization and micropropagation
- Earlier flowering
- Improved drought tolerance
- Reduced oxidative stress
- Reduced proline and abscisic acid
- Increased yields
- Increased quality
- Source: Agricultural uses of plant biostimulants 2014 Pamela Calvo et al

Humate Quality in the Aus market



- Australia has no regulation of the humate market
- No commercial humate analysis available in Australia, so we send to US.
- We had an independent consultant gather and test a number of humate products on the market.

Rhizovator PC



Rhizovator™ PC

WITH EXTRA KELP
TO PROMOTE BIOLOGICAL DIVERSITY,
ROOT DEVELOPMENT AND
NUTRIENT AVAILABILITY

ANALYSIS

ELEMENT	%W/W
Potassium Humate	13.00
Potassium	4.66
Potassium Fulvate	0.50
Nitrogen	0.25
Amino Acids	
Growth Regulators	

DIRECTIONS FOR USE:

Rhizovator™ PC is formulated for the stimulation of beneficial soil fungi and roots to help create biological diversity. For best results, mix 150ml of UAN per litre of Rhizovator™ PC used.

APPLICATION:

This product must be applied to the soil and can be diluted for ease of spreading. For the best results on sandy soil a combination application with K-Humate is recommended.

Orchard Crops: Apply 5L/ha per month through the irrigation system from fruit set to the middle of the fruit enlargement growth stage (at least 20L/ha per season).

Broadacre Crops: Apply 5L/ha Rhizovator™ PC down the tube at planting in a convenient volume of water. For irrigated crops or high yielding crops, the application can be repeated one month later.

Potatoes: Apply 10L/ha Rhizovator™ PC in combination with 20L/ha K-humate 26% one week before planting; repeat when the second leaf of the main stem has unfolded and again when the first basal side shoot is visible.

When mixing with other liquid fertilizers, test for compatibility with a small quantity in a jar.

Do not mix with low pH products



BIOLOGICAL



- 20L
- 200L
- 1000L

Rhizovator™ PC

Rhizovator™ PC has the potential to:

- Improve biological diversity
- Stimulate root systems
- Feed beneficial microbes including fungi
- Act as a natural chelating agent
- Promote soil health
- Improve nutrient availability
- Improve yield and quality

CAUTION:

Avoid contact with eyes. Keep out of reach of children. If swallowed seek medical advice. Do not store in direct sunlight.

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CONDITIONS OF SALE.

Every care is taken during the manufacture of this product. However, as environmental conditions can vary considerably, no responsibility can be taken by the manufacturer, importer or his agents for any injury, damage, loss or other results following the use or misuse of this product.

PROUDLY MADE IN AUSTRALIA



High Analysis Mixed Biostimulant

ANALYSIS

ELEMENT	%W/W
Potassium Humate	13.00
Potassium	4.66
Potassium Fulvate	0.50
Nitrogen	0.25
Amino Acids	
Growth Regulators	

- Higher levels of growth regulators sourced from K Kelp
- High quality potassium humate from market leading K Humate, sourced in Morwell, Vic
- Amino acids sourced from Purafish
- 0.5% Potassium Fulvate from K Fulvate 10%

What is Bacstim 100?

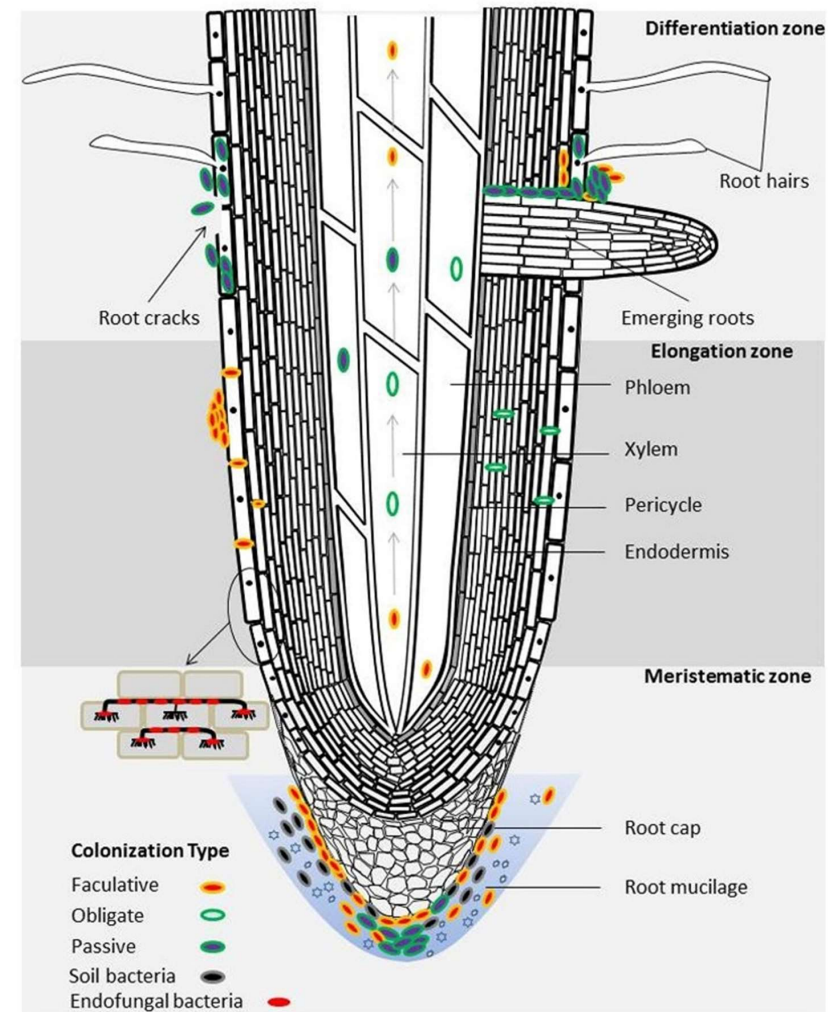


- Bacstim™ 100 is a microbial based product containing 5 different spore forming Bacillus strains
- The bacillus in Bacstim™ 100 have the ability to form spores when conditions are poor, and then regrow again once conditions improve

Contains 5 strains of Bacillus spp.
Total concentration of 2×10^9 CFU/ml (2 billion CFU/ml)
2 strains of *Bacillus licheniformis*
2 strains of *Brevibacillus laterosporus*
1 strain of *Bacillus amyloliquefaciens*

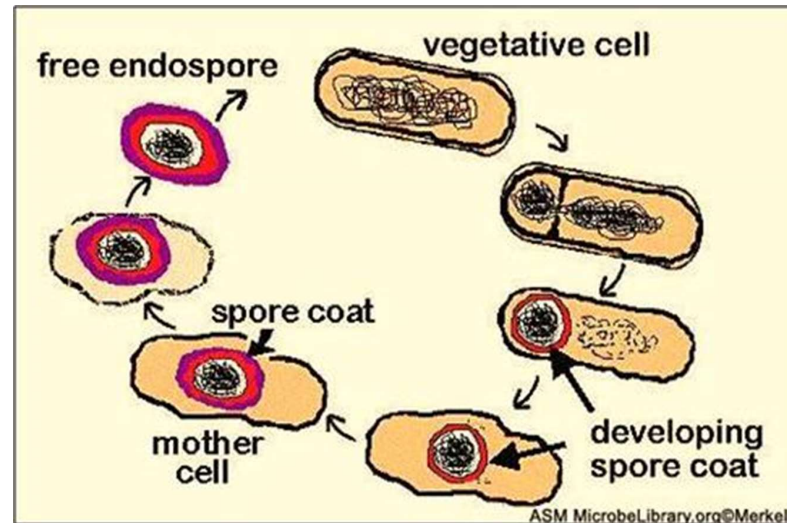
Why Bacstim?

- Plants work closely with the microbes that live around their roots for a multitude of reasons. Bacstim™ 100 is a way to introduce highly beneficial bacillus species into the root zone to:
 - Improve nutrient mineralization and uptake
 - Produce phytohormones encouraging root growth
 - Increase leaf chlorophyll levels
 - Increase crop biomass and yield
- Bacstim™ 100 is produced to Omnia's strict specifications to ensure consistent product quality and performance.



Why spore forming bacteria?

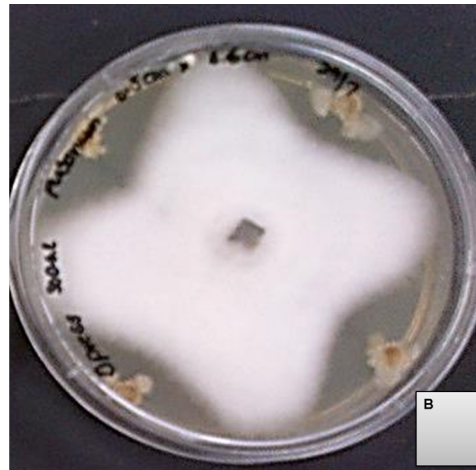
- **A spore:**
 - is a bacterial seed in a dormant state or hibernation
 - contains genetic material for growth, propagation
- **Spores form when a bacteria becomes stressed**
 - i.e. nutrient starvation (C, N, P, trace minerals...)
 - not all bacteria are spore formers



Anti Fungal Properties



Fusarium



Bacstim™ D



Bacstim™ 100

Usage Recommendations – Walnuts, Pecans

- Fertigated
 - Rhizovator PC 10 L/Ha
 - Bacstim 100 1 L/Ha
 - 3 times, beginning at or prior to flowering, then 4 weeks apart
- Foliar
 - Mega Kel P – 7 L/Ha
 - 1st application prior to flowering
 - 2nd 4 weeks later
 - 3rd 4 weeks later
 - Further applications can be made during times of stress

Usage Recommendations – Young Orchards

- **Fertigated**

- Rhizovator PC 10 L/Ha
- Bacstim 100 1 L/Ha
 - 3 times, beginning at or prior to flowering, then 6 weeks apart

- **Foliar**

- Mega Kel P – 0.75-1.5% of spray solution
 - Up to monthly with fungicide passes
 - Use lower rates if combining with other nutrient foliar
 - Apply through into early autumn

Questions?

Thankyou!