



BioAg program improves citrus crop yield

A Riverina citrus grower has been convinced that a biological approach to soil improvement is a safer, cost-efficient, and sustainable method of horticultural production.

In an established orchard that Russell Vardanega acquired several years ago, yields were reduced with; inhibited crop growth, insignificant canopy coverage, small leaves with evident nutrient deficiencies and a low rate of new growth and poor numbers of generative organs. These factors resulted in a dramatic yield reduction achieving only 10-15 t/ha, compared to a potential yield for planted varieties (Navels and Valencias) of 50 t/ha.

For several seasons, despite high levels of available potassium (K) and phosphorus (P) in the soil, the grower followed standard nutrition programs and had tried different soil ameliorants, e.g., gypsum, but with no positive impact on his crop.

BioAg suggested a nutrition program aimed at:

- Improving soil health and stimulating root growth
- Addressing micro nutrient deficiencies (mainly Zn, Mn), and
- Addressing soil properties including salinity, high sodium, high pH, and low soil carbon.

The nutrition program focused on addressing only those nutrients that were needed and included. BioAg biostimulants to improve soil function, nutrient use efficiency and support plant growth and tolerance to stresses (*Soil & Seed* and *HydraHume* and foliar treatments, *HydraSea 50*, *Balance & Grow* and *Fruit & Balance*).

At the end of the season, the grower noticed a significant improvement in crop growth. Tree canopies turned out to be thicker, with bigger leaves supplying a larger photosynthesis area. In addition, the soil conditions were improved, nutrient deficiencies addressed, with improvements evident in soil properties. In two years, the production has been dramatically increased (see table 1).



Table 1. Change in soil parameters and the crop yield.

Soil Parameters	Soil Test Analysis	
	Before	After
Soil Carbons	<1	1.5
pH	7.62	7.3
Sodium ESP, %	3.0	0.8
Chloride estimate, equiv mg/kg	227	64
Electrical conductivity, dS/m	0.4	0.1
Crop yield, t/ha	15	45-50

Contact your BioAg representative to discuss any crop issues you're experiencing.

BioAg Newsletters and Emails

BioAg will be sending topical and timely information by email from now on, with posted (and emailed) Newsletters provided as a summary every six months. To receive the latest news from BioAg via email, scan the QR code to sign up.



P fertilisers' continued price rise



In our Spring newsletter, we discussed the increasing prices of phosphate fertilisers. Prices have continued to climb, and from what we hear, starter fertiliser is now over \$1,500 per tonne, and SSP is over \$600 per tonne.

In cropping, *BioAgPhos* applied pre-plant with lime, gypsum, or sulphate of ammonia provides a long-lasting source of P supporting your crop through the entire season. In addition, the use of *BioAgPhos* at pre-plant will allow you to reduce your rates of starter fertiliser. How much less you use is dependent on crop and soil type, so talk to your BioAg Representative to find out more.

BioAgPhos provides a source of P that can be applied annually or every second year in **pasture** and irrigated **permanent plantings**. Application can be as early as summer in pastures as it is less prone to runoff or leaching than traditional chemical fertiliser. As a natural fertiliser, it is well suited to all farm types, conventional, regenerative, and organic.

The good news is that we have secured a shipment of raw material phosphate rock, arriving in early January; this means we are well placed to meet the needs of our customers. While pricing may change, as of December, *BioAgPhos* is cheaper than traditional chemical fertiliser by more than 10% on a per kg P basis.

Talk to your BioAg representative to secure *BioAgPhos* for 2022 and consider early delivery to avoid issues with trucking or a possible early break.

Christmas close-down

The BioAg team, including staff at our head office, the Narrandera plant, and our facility at Geelong Quarry will be taking a break over Christmas and New Year.

We will be closed Thursday 23 December, reopening Tuesday 4 January 2022.

Contact details for emergencies or urgent product pick-ups during this period:

Head Office 0418 367 326

We thank you for your continued support during 2021. We wish you and your families a safe and happy festive season and look forward to our continued association in the New Year.



New Website Launch



After many months in the works, we are excited to officially share our new website.

The main goal of the new site has been to provide our customers and sales team with a more intuitive and user-friendly experience that clearly states who we are, our commitment to solutions for soil health, and the science, research and development that underpins this.

“The main goal ... to provide our customers and sales team with a more intuitive and user-friendly experience.”

The website features refreshed branding, improved navigation and search bar, and a crop solution menu that directs you to the most relevant farming practices. There is a comprehensive resources section with timely topics including regen ag, soil carbon, and nutrient use efficiency plus case studies, independent trials, and demonstrations. We've also launched a 'latest news' section where we'll publish regular seasonal content.

Significantly, the 'contact us' and 'distributor' pages provide easy access to those who can assist you to boost your farm's productivity and sustainability.

We hope you like it as much as we do.



Better soils. Better crops. Better stock.

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