



BioAg

Solid Fertilisers

For immediate and continuous long-term
phosphorus supply to almonds

A close-up photograph of an almond tree branch. The branch is covered with vibrant green, serrated leaves. Several almond buds are visible, which are covered in a fine, greyish-white fuzz (silk) and have a smooth, oval shape. The background is a soft-focus green, suggesting more foliage.

BioAgPhos[®]
Reactive Phosphate Rock

For immediate and continuous long-term phosphorus supply to almonds



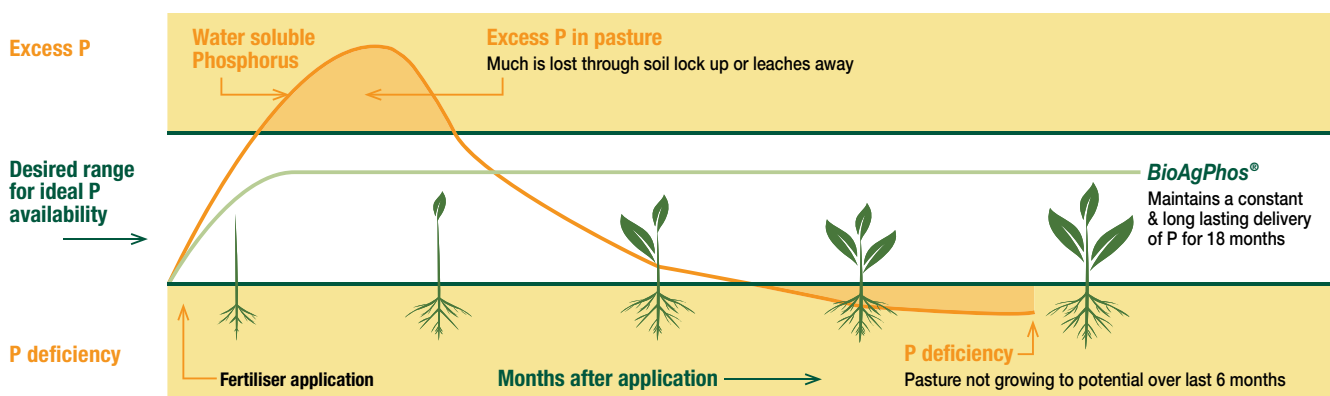
Sustained Phosphorus Supply for Long-Term Orchard Productivity

Almond production demands a reliable and sustained Phosphorus (P) supply to support early root development, canopy growth, nut set, and kernel filling. Traditional water-soluble fertilisers such as MAP, DAP, and SSP release phosphorus rapidly leading to high short-term availability but significant losses to leaching and soil fixation reducing long-term efficiency.

Liquid phosphorus products are an expensive alternative with the same risks of leaching and soil fixation. **BioAgPhos®** is biologically activated Reactive Phosphate Rock (RPR) containing 13% elemental phosphorus and 35% calcium. It delivers P gradually through microbial and root-driven processes, ensuring season-long availability aligned with almond tree nutrient demands. Its calcium contribution enhances soil structure, root health, and nut quality—supporting shell integrity, kernel development, and orchard longevity.

P availability – “non-water solubility doesn’t mean non-plant availability”

Phosphorus availability – Water soluble phosphates vs. **BioAgPhos®**



Biologically Mediated Phosphorus Cycling in Orchard Soils

In orchard systems, P is often locked in unavailable organic and inorganic forms. Almond trees depend on a biologically active rhizosphere for efficient nutrient uptake. **BioAgPhos** supports this by supplying mineral P in a form that soil microbes and mycorrhizal fungi can gradually solubilise via organic acids and phosphatase enzymes. The product is enhanced with a biological digester that primes phosphate surfaces for faster microbial access and supplies metabolites to stimulate indigenous P-solubilising organisms. This biologically mediated nutrient release preserves soil microbial diversity rather than disrupting it, as synthetic acidulated fertilisers often do. The result is a more resilient orchard soil with a consistent P supply available during key phenological stages such as flowering, nut set, and kernel fill.



“When you get healthy soil, you get greater availability of applied nutrients and better uptake. That’s what BioAg has done for us – it’s proven, reliable and profitable.”

– Kelvin Trezise,
Riverland

BioAgPhos® is proven by science and confirmed in the orchard!

Application Strategies for High-Value Almond Orchards

BioAgPhos is designed for both establishment and maintenance programs in almond production. With 96% of particles less than 500 microns, it offers excellent spreadability and even integration into orchard soils, ensuring uniform nutrient access across the root zone. It can be applied annually or biennially, reducing application frequency without sacrificing orchard productivity.

BioAgPhos can also be custom blended with boron, zinc, manganese, or other nutrients essential for nut crops, enabling targeted nutrition in a single application. It can be applied with soil ameliorants such as lime, gypsum, or compost, allowing growers to improve soil chemistry and structure while applying P, streamlining orchard floor management and reducing operational costs. The non-water-soluble form ensures nutrients remain in place, minimising runoff risks.

Economic and Environmental Benefits for Sustainable Almond Systems

Almond production is a long-term investment, and nutrient strategies must balance immediate yield outcomes with sustainable soil fertility.

Studies show that only 10–20% of water-soluble P is utilised in the year of application, with up to 50% becoming fixed and unavailable. This inefficiency represents a major cost in perennial orchards.

BioAgPhos reduces these losses by creating a stable, biologically accessible P reserve that trees can draw on for years. Its dual role as a P source and liming agent improves soil structure, infiltration, and nutrient exchange while supplying calcium critical for nut firmness and storability.

BioAgPhos is a natural sedimentary highly reactive phosphate rock imported from Algeria. It is the only RPR available in Australia with 41% of the elemental P available immediately. The product has a lower carbon footprint than processed alternatives, aligning with industry goals for sustainable, environmentally responsible almond production. For growers, this means greater input efficiency, improved long-term soil health, and consistent orchard productivity across the lifespan of the trees.



Customised Blends

BioAg offers customised blends with *BioAgPhos* as a base component that can have other nutrients and/or trace elements added.

BioAgPhos can be applied on farm with other ameliorates in one pass (lime, gypsum, compost).



Visit our website or contact your local Area Manager for more information.

Product Highlights

- You don't need forecast rain to apply.
- Doesn't need to be applied annually. It can be applied every second year.
- Can be applied at any time of the year.
- Reduces reliance on repeated synthetic applications and builds fertility that endures beyond a single crop cycle.
- *BioAgPhos* is the only Australian product using highly reactive phosphate rock on the market.
- Productivity and profitability combined with improved soil performance.

Application Rates

The principals of a balanced soil are paramount, the goal is getting the chemistry, structure and biology in balance to make sure the crop realises its full potential.

General application rates are between 200–500kg/ha.

The individual orchard requirements are considered, including history and soil type, along with soil test results.

A grower's yield, quality goals, and budget are also required to make a sound recommendation.

BioAg can tailor programs that are suitable for both conventional and organic farming systems and may include products from the BioAg range of biostimulants.

“Imported from Algeria, this natural sedimentary rock has been specifically selected for its reactivity.

BioAgPhos® is the only highly reactive rock phosphate available in Australia.”

BioAg Pty Ltd is an Australian owned and operated manufacturer of liquid biostimulants and importer of Reactive Phosphate Rock fertilisers. The company has been in business for over 25 years with the head office and modern liquid production facility in Narrandera and a solid fertiliser site in Geelong. BioAg products are scientifically proven to provide yield responses in conventional and all other farming systems. A dedicated team of Area Managers / Agronomists provide full field technical support to farmers and the reseller network.

Your local BioAg Area Managers are always available to discuss how BioAg's products and programs can improve your farming system or put you in contact with our distributor network.

The BioAg Range of Solid Fertilisers

Certified for use in organic systems

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BioAgPhos[#]

Highly reactive phosphate fertiliser made from high-grade reactive phosphate rock combined with BioAg's microbial digesting agent.

S10 BioAgPhos[#]

Incorporates elemental sulphur in the form of sulphur bentonite for a steady and longer S supply. Ideal for higher rainfall and higher leaching environments.

MagPhos[#]

Incorporates dolomite in **BioAgPhos**. Ideal for soils that need phosphorus, sulphur, calcium, and magnesium, such as pastures and grazing systems where there is a risk of grass tetany.

BioAg Superb[#]

Incorporates calcium sulphate in the form of gypsum into **BioAgPhos**. Ideal for soils that need phosphorus, sulphur, and calcium, such as pastures and grazing, and for crops requiring extra sulphur, such as canola.

Pasture Primo[#]

Provides a rich source of calcium and phosphorus through a blend of **BioAgPhos** and lime.

BioAgSoP[#]

Organically certified granular form of fertiliser containing potassium and sulphur. Immediately available to crops and plants. Ideal for crops with a high potassium demand and sensitive to chloride.

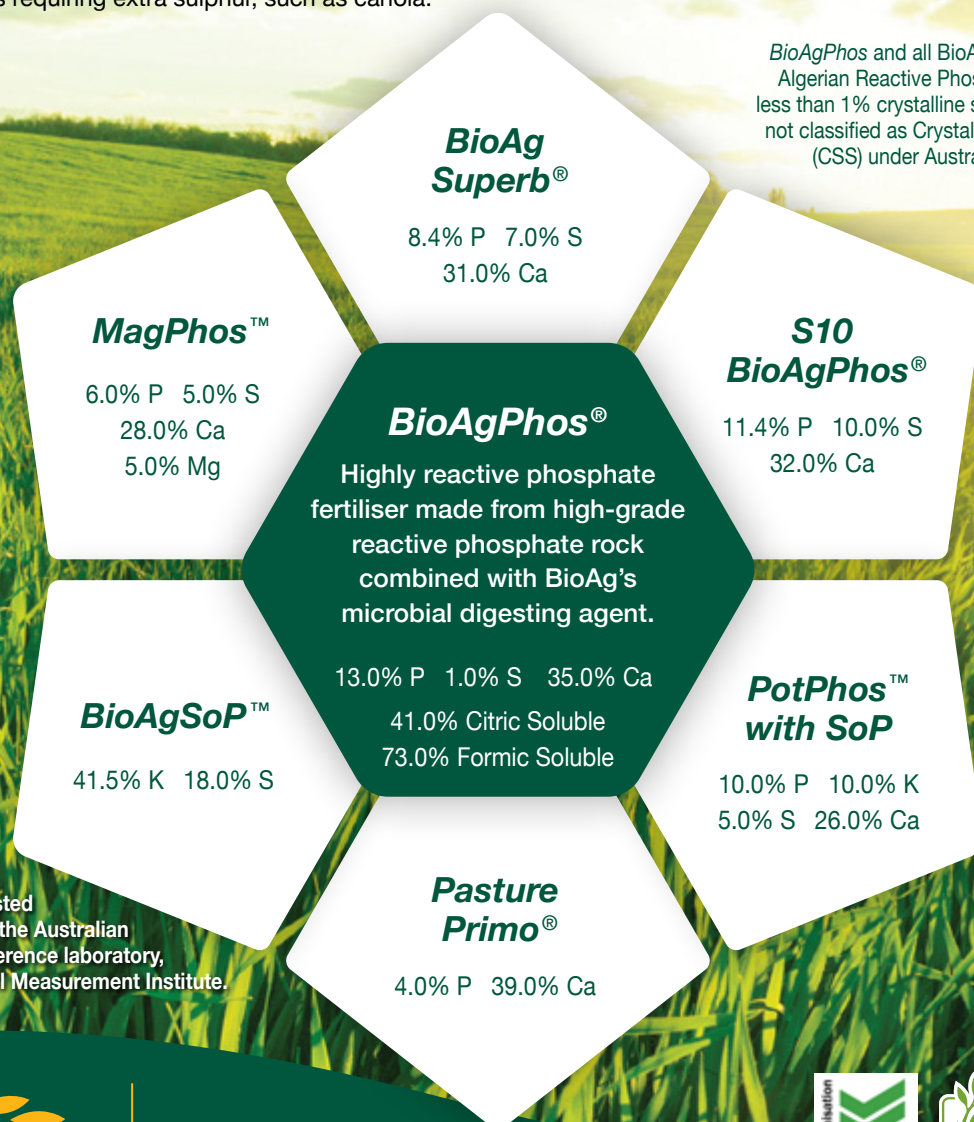
PotPhos with SoP[#]

Incorporates **BioAgSoP** and **BioAgPhos** in a blend ideal for soils that need phosphorus, sulphur, and calcium, such as hay and grazing pasture.

BioAgBor[#]

An immediate and sustained release form of boron suited to a range of enterprises such as horticulture, vegetables, pastures and field crops.

BioAgPhos and all BioAg products based on Algerian Reactive Phosphate Rock contain less than 1% crystalline silica, and therefore are not classified as Crystalline Silica Substances (CSS) under Australian regulations.



Phosphorus bio-availability tested independently by the Australian Government's reference laboratory, NMI – the National Measurement Institute.



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Better soils. Better crops. Better stock.

BioAg is Australian-owned and operated and has been manufacturing liquid biostimulants and natural phosphate fertilisers since 1999.