47 Naweena Rd
Regency Park SA 5010
Ph 08 8260 1134
Fx 08 8260 2263

Technical Bulletin

NutriMAX PhosCal

Where there is a soil nutrient imbalance, plant health and production can be inefficient. Phoscal, a unique combination of boron, silica, calcium and phosphorus, is designed to overcome these limitations and enhance the plant biochemical sequence, which is required for maximum plant growth and yield.

The other benefits of Phoscal include:

- Silica leads to increased cell wall strength in plants.
- Balanced nutrition leads to increased photosynthesis in the plant, which leads to higher brix content and mineral balance.
- Boron is critical in the reproductive stage, improving flower production/ retention/ flower development.
- Calcium is essential for plant cell strength.
- Phosphorus improves plant flower formulation and seed production.

Trials have proven that Phoscal can deliver significant returns on nutrient investment (Please see trial data).

PHOSCAL ANALYSIS

TYPICAL ANALYSIS (w/v)	
Nitrogen	6.0% TOTAL
	5.75% as urea
	0.25% as ammonium
Phosphorus	11.8% TOTAL
	0.8% as soluble
	1.0% as citrate soluble
	10% as citrate insoluble
Calcium	26.2% TOTAL
	17.1% as phosphate
	9.1% as oxide
Potassium	3.0% as oxide
Sulphur	0.5% as oxide
Magnesium	1.7% as oxide
Silica	6.6% as orthosilicate
Boron	1.5% as borate
Iron	0.3% as oxide
Manganese	0.02% as oxide
Zinc	0.01% as oxide
Fulvic Acid	2.0% as potassium fulvate
pH	5.6 - 5.9
Specific Gravity	1.65 g/mL

RECOMMENDATIONS

Crops	Rates	Timing
Foliar	Apply when a deficiency has been identified by tissue, petiole or SAP analysis	
Cereals	2 - 5 L	Apply prior to flag initiation or as required
Canola	2 - 5 L	Apply prior to flower bud development or as required
Legumes (Beans/Peas/ Lupins)	2 - 5 L	Apply prior to flowering or if a boost is required
Pasture	2 - 5 L	Apply 2-3 weeks after emergence or if a boost is required
Lucerne	2 - 5 L	Apply 2-3 weeks after emergence or if a boost is required
Tree Crops (Orchards/ Citrus)	3 -10 L	Apply prior to flowering or at 2-4 weekly intervals as required
Vines	3 - 7 L	Apply prior to flowering or at 2-4 weekly intervals as required
Horticulture (Potato/ Onion/Carrot)	3 - 7 L	Apply prior to flowering or at 2-4 weekly intervals as required
Turf	5 - 20 L	Apply every 2-4 weeks as required
Fertigation	5 -30 L	Apply at 2-4 weekly intervals as required
BioMAX Fulvic	**1 - 3 L**	**Optional for increased plant uptake**

**Micronised particles can black spray systems, to avoid modify filters and nozzles as follows: FILTRATION requires 35-50 mesh or greater NOZZLE Size 3-5.*
**Rates and timings may change depending on crop and season.*
**Always consult a LawrieCo area manager or distributor for specific recommendations.*

Trial: Faba Bean, Bordertown SA

A trial run by Jolpac Rural Supplies, Bordertown in 2017 assessed yield outcomes in Faba Beans, a treated and untreated area were compared.

The treated area had NutriMAX PhosCal applied at the critical growth stage of pre-flowering and measured an average 1.28 T/ha yield increase over the untreated area.

The treatment cost $8.85 per hectare and returned a 1.28T/ha yield increase.

During the season Jamie Weatherald (Director, Jolpac) observed a visible difference between the treated and untreated areas.

"We saw a definite increase in the size and number of pods in the treated area of the crop (pictured); the beans had podded all the way to the top, while the top flowers aborted on the untreated area.

The difference in pod numbers and size corresponds with the yield increase we measured."

Trial Details and Results

Location	Bordertown SA
Area	45ha
Soil type	Fertile heavy, loam
Crop	Faba Beans
Fertiliser	MESZ 100 kg/ha
In-Crop	Zinc application
Treated area	NutriMAX PhosCal 2L/ha pre-flowering

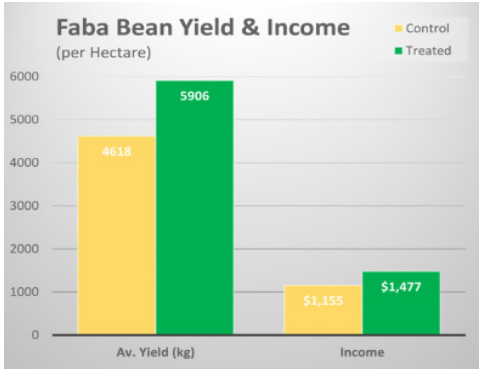
RESULTS SNAPSHOT

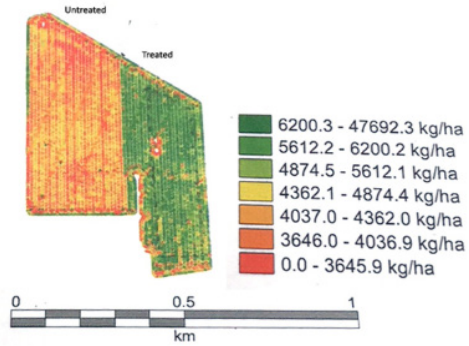
YIELD average increase 1.28T/ Ha

INCOME increase $332/ Ha

RONI $313 / Ha (Return on Nutrient Investment)

Increase size and number of pods





Trial: Faba Bean, Maitland SA

An independant trial at Maitland on the Yorke Peninsula of South Australia in July 2019 showed Phoscal delivering an increased return of half a tonne per hectare to the grower.

The Phoscal treated area (shown in the yield map below) yielded 2.84T per ha versus untreated 2.33T per ha. At an average price for Faba Beans in 2019 of $580 per tonne this returned the grower an increase of $300 per hectare.

Trial Details and Results

Location	Maitland SA
Soil type	Sandy loam
Crop	Faba Beans
Rate	1 applications of 5L per hectare
Month/Year	Aug-2019

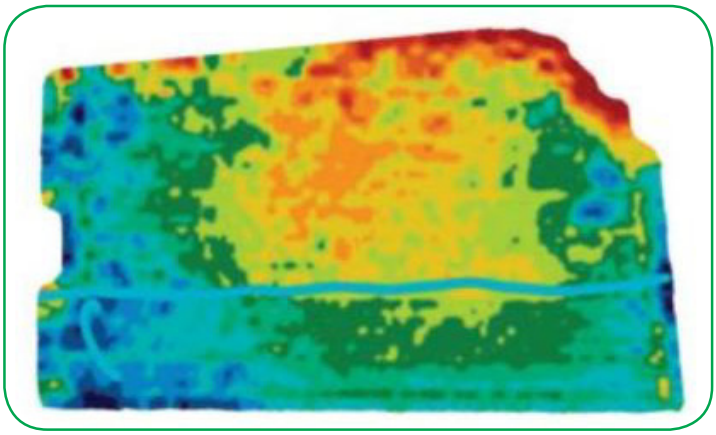
RESULTS SNAPSHOT

YIELD average increase 510 kg/ Ha

INCOME increase $295.8 (based on price of $580 /T Faba Beans 2019)

RONI $271.8 / Ha (Return on Nutrient Investment)

Based on retail price per hectare of $4 per Litre and rate of 5L per hectare.



< 1.2 tonne/ha	0.63 ha	1.41%
1.26 - 1.49 tonne/ha	0.51 ha	1.13%
1.49 - 1.72 tonne/ha	0.87 ha	1.92%
1.72 - 1.96 tonne/ha	3.22 ha	7.14%
1.96 - 2.19 tonne/ha	7.07 ha	15.69%
2.19 - 2.42 tonne/ha	7.34 ha	16.29%
2.42 - 2.65 tonne/ha	7.97 ha	17.69%
2.65 - 2.88 tonne/ha	6.48 ha	14.40%
2.88 - 3.11 tonne/ha	6.35 ha	14.11%
3.11 - 3.34 tonne/ha	3.06 ha	6.79%
3.34 - 3.57 tonne/ha	1.28 ha	2.85%
> 3.57 tonne/ha	0.26 ha	0.58%