



Pacific Fertiliser specialises in the sale of natural minerals used for agricultural applications. Supplying high quality natural agricultural minerals, fertilisers and trace elements such as gypsum, lime and phosphate rock. Pacific Fertiliser also supplies numerous products suitable for civil and industrial applications. PacFert is well positioned to offer competitive prices for some processed agricultural minerals to New Zealand and the Pacific Islands.

Visit the website for more information www.pacificfertiliser.com

MINED GYPSUM

Pacific Fertiliser sells premium natural mined gypsum products that are extracted from the best gypsum mines in Australia.

The natural gypsum can be used for every application from agricultural cropping applications, industrial uses and civil works.

- Agriculture - premium Grade 1 suitable for agricultural applications.
- Flocculation - the gypsum is suitable for flocculation of sediment dams to reduce water turbidity.
- Stabilisation - mined gypsum is widely used for stabilisation, rehabilitation and revegetation.

GENERAL PRODUCT SPECIFICATIONS:

Product	Gypsum Purity	Calcium (Ca)	Sulphur (S)	Sodium (Na)
	(% w/w)	(% w/w)	(% w/w)	(% w/w)
Mined Gypsum	93+	23.5+	17.3+	0.5 max

Pacific Fertiliser mined gypsum products have been used on the following:-

- Agriculture – broad acre cropping, pasture, horticulture and vegetables;
- Industrial – Plasterboard manufacture & cement manufacture;
- Civil Works – Stabilisation, flocculation and rehabilitation works;
- Aquaculture – fish farm flocculation.

GENERAL PRODUCT SIZING SPECIFICATIONS:

PRODUCT	Std Mined Natural	Mine3 Screened	Mine6 Screened	Mine10 Screened
Mean (mm)	1	0.5	0.5	1
98% Passing (mm)	10	2.8	5.5	8.3

Pacific Fertiliser also sells a prilled gypsum, hammermilled gypsum, aerial grade gypsum, granular gypsum and SuperFlocc ultra fine grade milled gypsum products.

HIGH PERFORMANCE PRODUCT SIZING SPECIFICATIONS:

PRODUCT	G110-Milled	Mine1-Milled	Mine2-Screened	Mine26-Aerial
Mean (mm)	0.05	0.25	0.5	3
98% Passing (mm)	0.1	1.0	2	5.6

PHOSPHATE ROCK

PHOSPHATE ROCK products are an excellent natural source of phosphorus, calcium and many essential trace elements. Phosphate rock has up to one fifth the neutralizing power of lime.

Pacific Fertilisers Soft Rock Phosphate has the following advantages:

- The product is Pre-digested, making it more soluble than other sources such as Middle Eastern;
- Contains good P and Ca levels with the added beneficial of a silica content;
- It is an Australian mined and refined product
- Pacific Fertiliser sells Rock Phosphate products that can provide exceptional results and make P readily available for plants, especially if the soil is Acidic (pH 5 to 6) and low in calcium (Ca) and the soil has low levels of available P.

Phosphate Rock is a slow release organic fertilizer and continuously adds P to the soil over a longer period of time. The benefits to farmers are lower costs and lower labour requirements because Phosphate Rock does not have to be applied every year.

BENEFITS

Unlike acidulated phosphates, such as triple super phosphate, Phosphate Rock offers a small percentage of its total phosphate content as immediately available. Large quantities of available phosphate from acidulated phosphates tend to fix or bond to cations (positively charged ion) nutrients in the soil, rendering the phosphate itself unusable, and also locking up the cations.

All this occurs before plants have a chance to use much of this very important phosphate. The slow release nature of Phosphate Rock allows plants good opportunity for access before fixation can occur. Additionally, fewer cation nutrients (such as calcium, magnesium, and potassium) can be bound up by free phosphate ions. Applications of Phosphate Rock can last up to 5 years, depending on soil conditions.

GENERAL PRODUCT SPECIFICATIONS:

PRODUCT	Phosphorus (P)	Calcium (Ca)	Potassium (K)	NV
	% w/w	% w/w	% w/w	%
Phosphate Rock	9.5+	22.0+	0.25	50+

GENERAL PRODUCT SIZING SPECIFICATIONS:

PRODUCT	RPR100 Milled	RPR3 Screened	RPR210 Screened	RPR24 Hammermilled
Mean (mm)	0.035	0.5	4.0	3
98% Passing (mm)	0.1	2.5	10	4

Pacific Fertiliser also provides Reactive Phosphate Rock (RPR) products which consist of fine ground phosphate rock and sulphur. Elemental Sulphur is blended at various ratios (RPR:S), depending on soil pH, to make effective use of the RPR even in strongly acidic soils. The Sulphur helps to overcome the constraint on the dissolution of RPR resulting from frequent periods of low soil moisture.

LIME

Pacific Fertiliser provides various lime products to civil and agricultural operators throughout NSW and QLD. PacFert is in a great position to supply lime products with transport to the greater Sydney, greater Brisbane, Tamworth, Warrick and central West NSW areas.

PacFert's Agricultural Lime (Ag Lime) is a premium natural limestone product which can be used for numerous applications from agricultural cropping, industrial uses and civil works.

Ag Lime is a soil additive made from pulverised limestone. Its main use in civil and agricultural applications is to neutralise acid sulphate soils and stabilise clay soils.

GENERAL PRODUCT SPECIFICATIONS:

PRODUCT	Calcium as (CaCO ₃)	Calcium (Ca)	Magnesia (mgCO ₃)	Netrualising Value (NV)
	% w/w	% w/w	% w/w	
Lime	96+	36+	0.7+	96+

Aglime is used in agriculture as a soil conditioner due to its superior neutralising value and a rich source of calcium. It is typically used to reduce soil acidity and improve plant growth by helping to increase the availability of essential plant nutrients in the ground.

Pacific Fertiliser can supply the following lime products:

- Super Fine Ag Lime – Agricultural lime. Available in bulk/bags (Particle Size 98% passing 0.3mm);
- Ultra Fine Ag Lime – Solution grade products for agriculture, flocculation, industrial & civil applications (Particle Size 98% passing 0.045mm);
- Prilled Ag Lime – high quality prilled ag lime (Particle Size A 2-4mm, or B 0.5 – 2mm);
- Hydrated Lime – used for soil stabilisation and water treatment (Particle Size 98% passing 0.075mm);
- Quick Lime – used for soil stabilisation and water treatment (Particle Size 98% passing 0.6mm);

Suitable Applications:

- Quick-acting acid soil neutraliser and plant calcium source.
- Neutraliser of acidity in peatmoss.
- Calcium supplement for livestock nutrition.
- Stabilising of clay for road base etc
- Carrier for stockfeed premixes.
- Filler where high brightness is not important.



DOLOMITE

Dolomite is a good source of calcium and magnesium for plants. It is naturally occurring rock containing calcium carbonate and magnesium carbonate ($\text{CaCO}_3 \cdot \text{MgCO}_3$).

Where both magnesium and lime are required, dolomite is often more cost-effective than applying magnesium oxide and lime separately.

GENERAL PRODUCT SPECIFICATIONS

PRODUCT	CaCO_3	MgCO_3	SiO_2	NV
	% w/w	% w/w	% w/w	%
Dolomite	60+	34	15	70+

Dolomite can provide a quick acting acid soil neutraliser. Even when the liming value is not considered, dolomite is often used as a source of magnesium, as the availability of the magnesium is increased, relative to Magnesium Oxide, due to its finely ground nature.

Dolomite is typically applied at rates of about 100-300kg/ha. However, rates of up to 1000kg/ha may be warranted, depending on the amount of Magnesium required.

Dolomite is often mixed with lime, RPR, Sulphur, and Potash, which PacFert can blend and deliver to meet your soil requirements.



BENTONITE

Bentonite is a natural swelling clay of Sodium Bentonite suitable for use in construction, sealing dams and irrigation ditches.

Civil engineering grade bentonite has for many years been used in diaphragm walls construction, tunneling and dam sealing.

PacFert bentonite is inert except for a light alkalinity. It is harmless to the human digestive system and can be dried & re-swelled an infinite number of times.

The bentonite Sealing Powder and Sealing Granules are prepared especially for dam sealing applications and available in bulk and 1.2 tonne bulk bags

Pacific Fertiliser also sells and blends sulphur bentonite for agricultural applications

TYPICAL PHYSICAL PROPERTIES

	Powder	Granular
Free Swell (ml/2g)	15-20	15-20
Particle Size	<1	1-2
pH	6-7	6-7
Bulk Density (g/cm ³)	12	1
Moisture %	12-15	12-15

SUGGESTED APPLICATION RATES

(Kg/Square metre)	Powder	Granular
Clay-rich soil	10	15-20
Sandy Soil	15	
Coarse sand	25	
Leak in existing dam	-	15 to 30



BLENDS

Pacific Fertiliser provides various fertilisers and fertiliser blends to the agricultural industry throughout NSW, QLD & VIC. PacFert is in a great position to supply blended products with competitive transport in Eastern states.

PacFert can manufacture custom blends of minerals, fertilisers and trace elements. Providing variations of N, P, K, Ca, S and Mg to meet your needs.

The blends can be made to meet organic farming requirements and/or meet actual soil requirements in a one pass solution.

Some examples of our blends are listed below, please visit the website, or contact us for specific tailored blends which can be granulated for easy of storage and spreading.

EXAMPLE BLEND 1 – PF 17-17-17

This product is a blended 2-4mm granular fertiliser product suitable for sporting fields

PRODUCT	Nitrogen (N)	Phosphorous (P)	Potassium (K)	Sulphur (S)	Calcium (Ca)
	% w/w	% w/w	% w/w	% w/w	% w/w
PF 171717	17	17	17	0	2

EXAMPLE BLEND 2 – RPR-GYP

RPR-GYP is a blend of both Pacific Fertiliser's RPR2 Soft Rock Phosphate and Mined Gypsum products, that provide an organic alternative to "Single Super". Unlike conventional acidified fertilisers, RPR-GYP provides a slow release source of plant-available phosphate, as well as calcium and sulphur needed for plant growth and healthy soils. Elemental sulphur maybe added to the blend to increase the sulphur content and soft rock dissolution rates.

PRODUCT	Phosphorous (P)	Calcium (Ca)	Sulphur (S)	Moisture
	% w/w	% w/w	% w/w	
RPR-GYP	7+	22+	4.5+	<5

EXAMPLE BLEND 3 – Gypsum and Lime

When required we can blend both of Pacific Fertiliser's AG lime and Mined Gypsum products. Gypsum and lime blends would suit an acidic and sodic soil with a high exchangeable sodium percentage. Usually sodicity is linked to alkalinity but not all sodic soils are alkaline. There are occasions when there is a need for gypsum and lime blends such as the dairy industry where heavy traffic causes a loss of soil structure and the pH is low. Gypsum and lime blends may also be used where there is a requirement for sulphur and it is required for a quick response. Adding elemental sulphur in this case would cause acidification and it will not be as readily available.

PRODUCT	Calcium Carbonate (CaCo3)	Calcium (Ca)	Sulphur (S)	Moisture
50/50 blend	% w/w	% w/w	% w/w	%
Gyp-Lime	48.2+	30+	8.5+	<5