



MADURA GuanoGOLD®

SPLIT P

Guano Sulphur Gold®

PHOSPHORUS MANAGEMENT SYSTEMS [PMS] for Fertiliser Use Efficiency [FUE] Phosphorus Buffering Index [PBI] with GUANO GOLD-SPLIT P range of products

Extract more value from your Phosphate dollars by integrating **Guano Sulphur Gold-Split P** and the newly developed and formulated **Guano Liquid Gold-Split P** into your farming program.

Phosphorous analysis is extracted in a test tube; however the soil is anything but a test tube environment. The Phosphorous in our **Guano Gold-Split P Fertiliser range of products** is mainly non water soluble giving a "Split P" drip feed effect for crop growth throughout the whole season. The available Phosphorous [P] in the **Guano Gold-Split P** fertiliser range combines with natural Calcium, Gypsum, Silica and trace elements giving your crop the perfect start from germination to maturity.

The **Guano Sulphur Gold-Split P** is a prilled product; tested and suitable for use in air seeders, combines and planters whilst the **Guano Gold-Split P-Kwik Start** is a granular for ground spreading through the same as single super through a belt spreader.

Guano Liquid Gold **IS** a full suspension product for use through fertigation, irrigation and foliar boom applications.

So for once and for all, get the full dollar value from your Phosphorous by making the **Guano Gold-Split P** range of fertiliser products an intricate part of your PMS-FUE.

Guano Australia Pty Ltd, now offers independent lab testing for; Phosphorus Buffering Index [PBI] as a part of its soil testing services.

The long running CSIRO trials have proven that water soluble phosphate from Single Super, MAP or DAP can become 'tied up' in the soil. All soils are different in pH, Iron, Manganese, Calcium and Aluminium; all these will affect available Phosphorous [P].

Due to these factors Phosphorus levels in the soil FUE can be very low. CSIRO trials (McBeath 2011) showing that Phosphorus FUE ranged from 3-30%.

This means that out of all the Phosphorus applied to the crop, a maximum of 30% was used. Based on the above CSIRO work a soil that has a FUE of 30% would require 200 kg/ha of DAP while a soil with FUE 80% would require 75 kg/ha to deliver 12 kg/ha of usable Phosphorous.

Therefore the real cost of the effective Phosphorous is dramatically affected by the soil characteristics as calculated in the FUE. Soils with low FUE tend to only receive about 6 weeks of Phosphorous from the fertiliser then must rely on soil mineralization to extract Phosphorous from the soil.

Adding to the above CSIRO trials (McBeath 2011), **Professor Gleeson confirms**, Australian grain producers apply \$1 billion worth of Phosphorus [P] fertilisers each year, but only 50% is taken up by plants. Much of the remaining fertiliser P becomes fixed in soil and the P 'bank' in Australian arable soils is estimated to be worth \$10 billion. She goes on to say; improve understanding of the mechanistic basis of rhizosphere strategies for enhancing Phosphorus mobilisation in order to optimise Phosphorus use within farming systems.

In a conventional farming system the **Guano Gold-Split P** range of fertiliser products can be blended with MAP, DAP or SSP to obtain both water soluble Phosphorus and citric and noncitric Phosphorus.

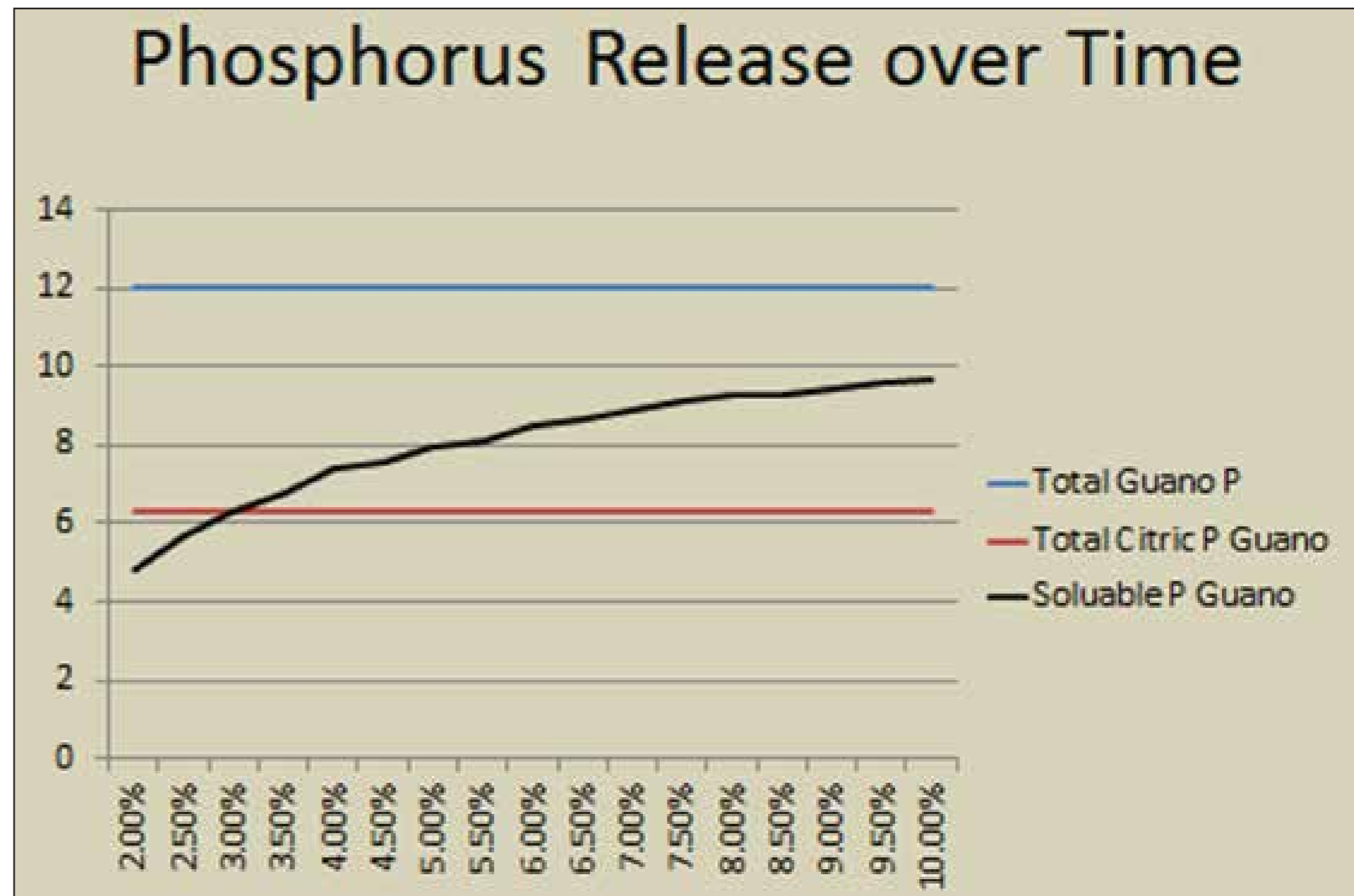
On soil tests the FUE has been reworked as the PBI. This Index takes the FUE and converts it into a 0 to 1000 scale with the higher the number the higher the risk of Phosphorus [P] tie up. In General once the PBI goes above 150 then tie up starts to affect P up take.

| | |
|---------|-----------|
| 36-70 | very low |
| 71-140 | low |
| 141-280 | medium |
| 280-840 | high |
| 840> | very high |

An example would be in a soil with a PBI of 400 and an average P soil reading would require 30 kg per hectare of DAP mixed with 60 kg of **Guano Sulphur Gold-Split P**. This would give 6 kg of P per hectare for early growth and 6 kg of P per hectare of drip feed P to sustain the crop. This would be enough P for a 4t/ha crop.

In an organic system 120 kg of **Guano Sulphur Gold-Split P** at sowing down the tube or 100 kg of **Guano Gold-Split P-Kwik Start** could be broadcast would give enough P for a 4t/ha wheat crop.

It can be concluded that finding out the soils FBI based on the FUE, is the first step in an Integrated Phosphorous Plan to calculate your real cost of effective Phosphorous.



GUANO GOLD® SPLIT P graph test as conducted by SWEF Labs, evidences the available Split P by the hour.

Guano Gold has been tested and proven by the independent **Food and Agriculture Laboratories Australia Pty Ltd [FALA]** which proves

Guano Gold is the only known Guano product in the world that has this unique 50/50 "P Split".

Hence, SPLIT P, available 'by hour on the hour'. This is now further proven by our Guano Gold-Split P graph test as conducted by SWEF Laboratories which **evidences the available Split P 'by the hour on the hour'.**

The citrate insoluble components of Guano Gold fertilisers contain Phosphorus [P], which is insoluble in water as well as in citric acid. The P rate of release is governed by soil acidity or soil organic matter.

The P is slowly released by microbial action and remains in the soil for a long time. The above graph shows in a laboratory test how the rate of citric acid increases the release of the P in the Guano Gold product.

The citric soluble component is 100% release at 2 to 2.5% citric acid solution which is the industry testing standard. From the 2.5% mark to 10% mark, 81% of all P has been released.

Is it any wonder how and why Guano Gold, gives Australian agriculture a "Kwik Start".

"On Time - Every Time!"

100% Available P & K with GUANO GOLD® SPLIT P



Guano Gold® products being loaded & trucked nationally.



Guano Sulphur Gold® Airseeder. Tested & Proven!



GUANO SULPHUR GOLD®

- 100% available P & K with GUANO GOLD® SPLIT P products.
- Extract more value from your Phosphate \$s by integrating GUANO GOLD® SPLIT P products into your farming program.
- Air Seeder & Spreader tested & proven.
- Natural organic product.



guano.com.au | sales@guano.com.au | T: 07 5445 5300 | F: 07 5476 6400



MADURA **Guano**GOLD®

SPLIT P



GUANO GOLD® SPLIT P Get More Value, Get More Phosphorus!

TESTIMONIALS



Graeme Talarico,
agronomist from
WB Hunter

Farmers have been extracting more value from their phosphate dollars through the use of Guano Gold- Split P products.

Agronomist Graeme Talarico from WB Hunter has experienced great success selling the fertiliser products, which he said allows farmers to gain more from their soil. "The superior availability of the phosphorous component in the fertiliser, as well as the silica component and other attributes, makes it a unique fertiliser," Mr Talarico said.

"I sell the products to people in horticulture, dairy and broadacre businesses and they use it in a range of crops."

This product provides farmers with both types of phosphorous – both water soluble and non-water soluble – unlike others on the market.

"A lot of fertilisers have only got water soluble phosphorous, which means for a period of time it is more likely to be unavailable to the plant," Mr Talarico said.

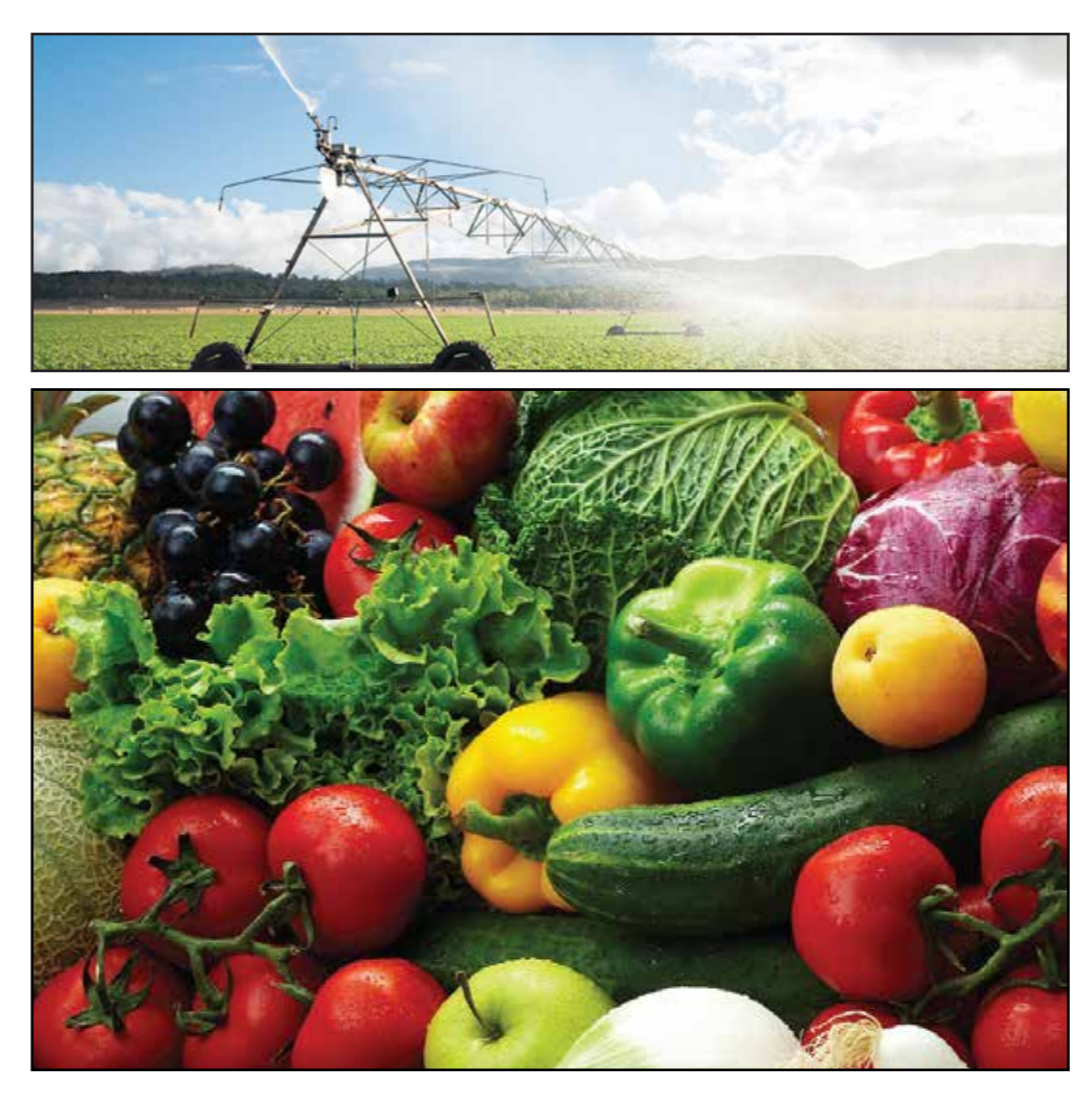
Without enough phosphorous, young crops will struggle to take off and existing crops will not perform as well.

"Particularly for a young crop with a small root system, phosphorous is pivotal to get it going. If phosphorous is poor the crop will take a lot longer and you will suffer yield decline," Mr Talarico said.

"Products like this are integral as crops don't perform as well without having very good quality fertilisers underneath them."



Guano Liquid Gold® and Guano Liquid Gold with KMS® available in 15L pails & 1000L IBC tanks.



Guano Liquid Gold® and Guano Liquid Gold with KMS® are both suitable for foliar, fertigation & liquid injection.



A STRONG LOCAL PARTNERSHIP FORMED

Over the past 25 years, Guano Australia has grown from strength to strength to become a national fertiliser company. John Kismet Jashar commenced operations for Guano Australia Pty Ltd in the early 90s, from Shepparton Victoria. Today the company services all forms of the Australian horticulture, dairy and broadacre markets.

Mr Jashar, not forgetting the history that Guano Australia was built on, has now teamed up with local institution WB HUNTER GROUP - to service the entire Goulburn Valley region and Southern NSW/Riverina.

The Hunter and Jashar names are synonymous in the Goulburn Valley region, and this new arrangement will bode well to effectively service the target markets.

For all technical support and product supplies call:

GRAEME TALARICO at WB Hunter Group on 0427 215 744 or John K. Jashar at Guano Australia 0412 474 049

John Kismet Jashar,
CEO/Director

TESTIMONIALS



Michael Nagorcka
from Waltanna
Farms, near
Hamilton, Victoria.

For flax-seed farmer Michael Nagorcka, phosphorous is the key to a successful crop.

This nutrient is essential for all plant growth, so it is no surprise that farmers like him are seeking to increase the amount within their crops.

Mr Nagorcka uses Guano Gold-Split P products to enhance the phosphorus component of his flax plants.

"We have known since the 1930s that phosphorus is one of the main elements required to grow a successful crop of not just the (flax) plant but the seed," he said.

"It gives you a very high oil content and a very high Omega 3 content."

Mr Nagorcka has used the Guano Gold-Split P products for the past 4-5 years and has been impressed with their diversity and success.

"It was one of those products that was first out in a granular type form and it was so much easier to get an even coverage over the ground, rather than a powder form," he said.

"Later on the product became a little more refined, so we could put it through our air-seeder. We also broadcast some of it, prior to seeding, when we are cultivating ground."

While Mr Nagorcka grows wheat and oats too, flax seed is his primary crop - so it is essential to give it what it needs to thrive.

"The products have great characteristics in relation to phosphate and silica, which is exactly what we need for flax," he said.



- 100% available P & K with GUANO GOLD® SPLIT P products.
- A natural source of liquid Phosphorus, Potassium, Sulphur, Magnesium, Calcium & Silica.
- Suitable for fertigation & foliar application.
- Contains a surfactant to assist in foliar application.
- Contains a range of trace minerals including useful levels of Zinc & Manganese.

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