

# Guano Powder

Wettable Powder - 12% P + 25% Ca



- **Micronised source of P (12%) and Ca (25%)**
- **Microbe friendly**
- **Use via irrigation**

Guano Powder is a micronized source of guano. It provides a microbe friendly source of both phosphorus and calcium.

Calcium and phosphorus are not normally combined in the one fertiliser. Soluble synthetic P and Ca are not compatible.

Guano Powder is based on natural guano. It provides the two nutrients in a safe and effective form.

## Phosphorus

The second most deficient soil nutrient (second only to calcium). Phosphate is necessary for proper plant metabolism (energy transfer), blooming and possibly somewhat earlier maturity. Phosphorus is important in cell division and the development of new tissue.

Plants deficient in P have stunted growth.

Chemical fertilisers can lead to soil degradation. Guano contains a living microbial flora which enhances organic matter, encouraging microbial activity which improves nutrient uptake, plant health and soil moisture levels.

## Calcium

Calcium helps create a healthy soil environment for plants and it improves uptake of other nutrients to the plant. As the calcium content in the plant decreases, so can the protein, energy level and minerals

of the plant. Calcium stimulates growth of "soil life", including nitrogen-fixing bacteria.

- Calcium is essential for proper cell wall development in plants.
- Calcium solubility must be maintained for crop demand.
- A soil with balanced calcium is friable and easily worked.
- When calcium and other cations are balanced, root health, nutrient availability and up- take is increased.
- Calcium reduces the toxicity effect of magnesium and soil born fungi such as root rot and phytophthora.

Many fertilisers remove calcium from the soil and can be expensive and dangerous to soil health.

The following products remove Ca (per kilogram of N applied):

Fertilisers	Calcium Removal/ kg N applied
Anhydrous ammonia (NH <sub>3</sub> )	removes 0.7kg of Ca
DAP (di-ammonium phosphate)	removes 0.2kg of Ca
Ammonium sulphate	removes 0.7kg of Ca
Calcium Nitrate	removes 0.4kg of Ca
UAN	removes 0.7kg of Ca
Urea	removes 0.7kg of Ca
MAP	removes 1.4kg of Ca

*Australian Soil Fertility Manual*



# Supplying in-crop P and Ca

## PACK SIZES:

25kg bag

## DIRECTIONS FOR USE:

Guano Powder is used in a wide range of agricultural enterprises to provide natural phosphorus and calcium. It is best applied to the soil, however it is useful as a foliar spray.

Suitable for use as a soil drench, via irrigation or as a foliar spray.

Applied through standard spraying and via irrigation..

Pre mix thoroughly with equal quantity of water prior to adding to spray or fertigation tank. Add to full tank under agitation.

Ensure constant agitation during use.

If used as a foliar spray this product may leave visible residue on leaves. If this is a concern then apply via soil.

## TYPICAL ANALYSIS:

Total P - min 12%

Calcium - min 25%

## APPLICATION RATES:

### Horticulture:

Via Irrigation - 5-10kg/ha applied 3-5 times during growing season. Dilute 1:100 with water.

Foliar Spray – 3-7kg/ha; dilute at least 1:200 with water.

Transplants - Dilute 1:250 with transplant water

### Broad-acre:

Planting (injection) – 5-10kg/ha; pre-mix 1:2 with water

## CLEAN UP PROCEDURE:

Use all mixture in spray and irrigation tanks; purge tanks and lines with clean water; flush irrigation lines. Do not return mix to original drums.

## STORAGE:

Store in original container away from direct sunlight and moisture. Do not store in diluted form.

## PRECAUTIONS:

Physically compatible with a wide range of commonly used products. Always mix a small quantity (jar test) and check for physical compatibility before combining with other ingredients.

## Add active carbon to improve nutrient availability ...

We recommend adding active carbon in the form of humic/fulvic acid when applying nutrients to improve nutrient availability. Humates provide a charged surface for nutrients to hook onto (multiple studies world-wide).

Humates are the most active component of soil organic matter and cost-effectively provide the benefits of soil organic matter.

OFS has humic/fulvic liquids, powders and pellets which are used extensively throughout Australia to improve soil health.

Humates have a complex differentiated nature which contribute to their numerous benefits. They feed soil microbes, improving soil structure and effectively hold onto nutrients and reduce leaching.

Humates have a low molecular mass and are taken up by the plant. They actively modify plant metabolism, with their effects mainly being exerted on cell membrane functions which promote nutrient uptake (Nardi 2002).



Tel: 08 9384 3789  
Tel: 03 9008 6352  
info@organicfarming.com.au  
www.organicfarming.com.au  
© Sustainable Ventures Pty Ltd -7-16



Certification # 6177M