

# POWER-PHOS™

## LIQUID FERTILISER FOR HIGH pH SOILS



### DESCRIPTION

POWER-PHOS™ is a liquid phosphorus and nitrogen fertiliser specially formulated to supply P and N in high P soils.

### KEY BENEFITS

- Contains different forms of phosphorous for improved availability and uptake
- Specially formulated for clay-loam, high carbonate or high pH soils that tend to fixate phosphorous
- Will assist in lowering soil pH
- Suitable for application through the irrigation system
- Easy to mix and apply

### CONTAINS

- N** Nitrogen = 6%
- P<sub>2</sub>O<sub>5</sub>** Phosphorus = 16%
- Zn** Zinc = 0.4%



### POSITIONING AND FUNCTIONS

Soil chemistry will affect the availability of nutrients in the soil as well as mobility and ultimate plant uptake and assimilation. Phosphorous is reactive in soil chemistry and easily adsorbs to organic and metal ions. In high pH and/or alkaline soils, phosphorous behaviour is influenced by soil calcium, but also the presence of iron and aluminium oxides, which influence plant phosphorous availability by adsorbing to phosphate containing compounds. POWER-PHOS™ promotes acidification that reduces the formation of strong calcium-phosphorous bonds and increases the availability of other soil nutrients.

Soil pH also affects the availability of zinc, which decreases significantly in high pH soils and in soils with high phosphorus levels. Additionally, nitrogen tends to also become more volatile in high pH soils. POWER-PHOS™ resolves this problem by lowering pH as well as being a source of zinc and nitrogen.

To ensure a consistent supply of phosphorus and nutrients to the crop, POWER-PHOS™ contains a combination of several phosphorous sources, that include short- and long-term release sources designed to provide immediate phosphorus and nitrogen to calcium and magnesium-rich soils, and release plant-available phosphorus over a longer period for improved phosphorus availability and uptake efficiency.

POWER-PHOS™ can also be administered at regular times throughout the season to keep the supply of nutrients consistent, while facilitating soil acidification in the short and long term.

### REGION

USA

### TYPE

Liquid

### APPLICATION

- Soil
- Fertigation

### NET VOLUME

2.5 Gallons (9.5 Liter)  
265 Gallons (1003 Liter)

### CROPS

-  Grain crops
-  Fruit trees & vines
-  Tree nuts
-  Turf & grass
-  Vegetables

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N

Nitrogen is a central component of amino acids, which are the building blocks of plant proteins and enzymes and is an important macronutrient for plant function. Nitrogen plays a vital role in vegetative growth and development and is also required for flowering and fruit set. It is essential in the plant as it ensures that energy is available when and where the plant requires it to maximize yield.

P

Phosphorous is responsible for root development, increased stalk and stem strength, improved flower formation and seed production, more uniform and earlier crop maturity. It is also vital for the plant's metabolic processes as well as cell division, sugar and starch formation and the movement of carbohydrates.

Zn

Zinc is an essential micronutrient and acts as either a functional, structural, or regulatory cofactor of many enzymes. Plant enzymes activated by zinc are involved in carbohydrate metabolism, maintenance of the integrity of cellular membranes, protein synthesis, regulation of auxin synthesis and pollen formation. Zinc is an essential nutrient for young active growing leaves and flowering. The regulation and maintenance of the gene expression required for the tolerance of environmental stresses in plants are zinc dependent.

