



Phosgard® Plus

Phosphorous acid with
Polyphosphate Fertilizer

JH Biotech
Biotechnologies for Safer Agriculture

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PHOSGARD PLUS 0-32-25

29% P₂O₅ as PO₃ & 3% P₂O₅ as PO₄

Phosphorus is one of the key essential elements in agriculture. Phosphorus has many important functions in plants, the primary one being the storage and transfer of energy through the plant. ADP and ATP are high energy phosphate compounds that control most processes in plants including photosynthesis, respiration, protein and nucleic acid synthesis, and nutrient transport through the plant's cells.

Phosphite Fertilization

The benefits of Phosphite (PO₃) fertilization have been well documented and observed for more than two decades. Phosphite based fertilizers have grown very popular and are now part of many standard nutrition programs. Phosphite fertilizers have several advantages over phosphate base fertilizers. Phosphite is not tied up in the soil as phosphates are. The phosphite ion is able to remain in the soil solution and is easily taken up by both plant roots and foliage. Phosphites are ideal for foliar application because they pass readily through the cuticle of the leaf and are transported through both the phloem and xylem. Phosphite is slowly converted inside the plant and in the soil to phosphate, making Phosgard Plus act as a slow release phosphorus source. Phosphite also helps to boost the immune system of plants and can have a positive effect on plant vigor and growth. Phosphite also stimulates root development which can lead to healthier, more productive top growth.

Phosgard Plus

Fills the Gaps with Polyphosphate

Often during times of rapid growth the available phosphorus in the soil is not sufficient to supply the needs of the growing plant. Side dressing phosphate during this time is common, but only has a short term effect on curbing the phosphorus deficiency. Polyphosphate provides an immediately available phosphate source. Applications of Phosgard Plus can quickly supply the necessary amount of phosphorus to the plant in both the readily available phosphate (PO₄) form as well as the time released phosphite form (PO₃).



During times of rapid growth the available phosphorus in the soil may not be sufficient to supply the needs of the growing plant.

Advantages of Phosgard Plus

- **Immediately Available Phosphate**
- **Slow Release Phosphorus**
- **Boosts Vigor and Growth**
- **Can Help Increase Root Growth**
- **Absorbed by Roots and Leaves**
- **Higher Analysis, Higher Availability
Equals More Phosphorus for Your Money.**
- **A Complete Phosphorus Source**
- **Increased Micro-Nutrient Availability**
- **Activates the Immune System**



Soil & Foliar Application

Phosgard Plus is effective through both foliar and soil applications. Phosgard Plus can be applied to and absorbed by the leaves and translocated to the root system or applied to the soil where it will be absorbed by the root system and translocated to the leaves. Having both readily available and slow release forms of phosphorus makes Phosgard Plus an ideal nutrient for your plants nutritional needs.

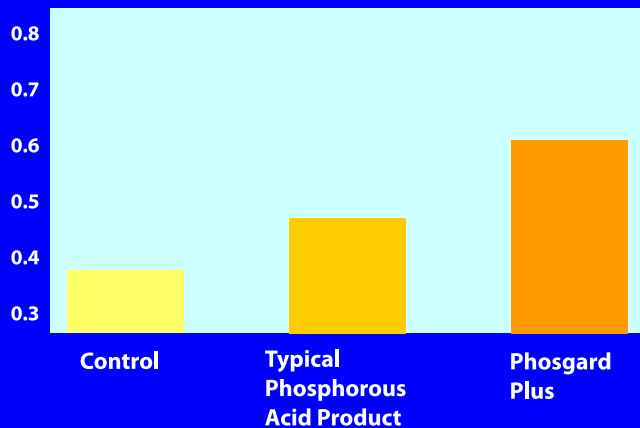


Phosgard Plus' phosphites move in both directions from roots toward the leaves and from leaves down to the roots. Research has shown application of phosphite can replace phosphate as a source of phosphorus for normal metabolism in crops such as citrus and avocado.

By supplying both immediate and slow release forms of phosphorus, Phosgard Plus is an ideal fertilizer for any crop. Additionally, Phosgard Plus supplies large amounts of potassium to increase yield and quality of crops, increase root growth and resistance to disease.

Phosgard Plus is a unique fertilizer that utilizes JH Biotech's patented technology. Phosgard Plus combines both PO_3 and PO_4 together in one product. No other fertilizer can offer as many benefits as Phosgard Plus. Phosgard Plus contains 29% PO_3 and 3% PO_4 . This combination of phosphorus is ideal for fast growing crops like lettuce and spinach. It also helps increase the quality of fruit bearing crops like strawberry, apples and peaches.

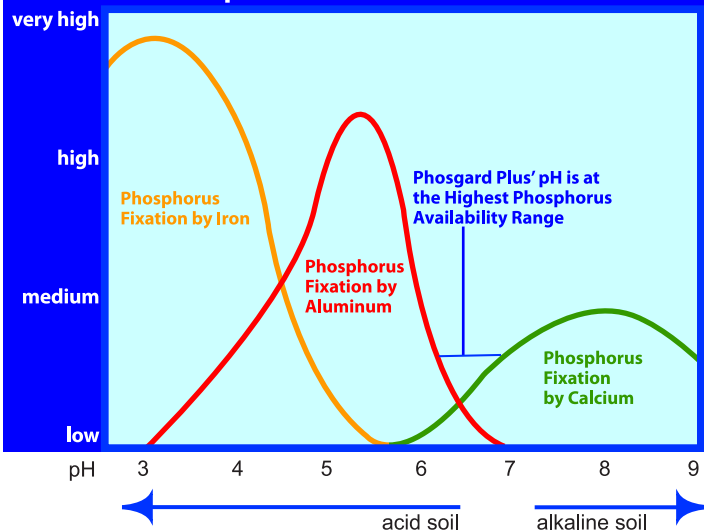
Percentage of Phosphorus Stored in Leaves



Use Phosgard Plus in nutrient programs and reap the rewards of a superior phosphorus fertilizer. Phosgard Plus can be applied as a soil drench, a foliar spray and a trunk treatment and as a plant or root dip. All of these application methods will provide maximum uptake of phosphorus due to the buffer composition and specific pH of Phosgard Plus.

JH Biotech, Inc. is a leader in phosphite fertilizer technology and we pride ourselves on the quality of the products we bring to the market. Phosgard Plus is a new, high quality fertilizer designed to meet the needs of innovative growers looking to get the most out of their crops and fertilizer programs.

Amount of Phosphorus Fixation in the Soil



Symptoms of Phosphorus Deficiency

- Slow Growth or Stunted Plants
- Purplish Coloration on Foliage Usually on Older Leaves
- Dark Green Color With Tips of Leaves Dying
- Poor Grain, Fruit or Seed Development
- Delayed Maturity



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