

OMEX DP 98

High Phosphorus

The Triple Action Of Phosphite PO_3
Strengthening the root system - improving the fruit
-set percent - raising the plant's immunity to resist
diseases and other external factors



Introduction :-

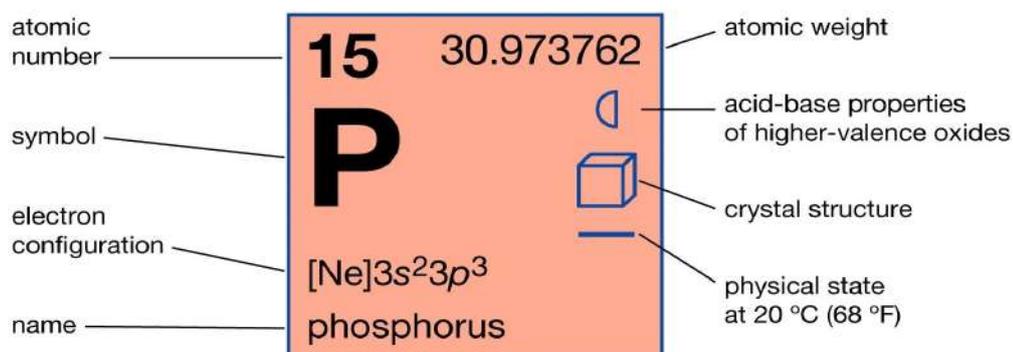
Omex DP is a foliar fertilizer that is used as a spray on the plant. It contains phosphorus in the fastest form for absorption especially in alkaline soils (PO_3) which is not available in other ground additions phosphate fertilizers . in addition to containing potassium, Omex DP works to increase the root system and Increasing the success rate of the fruit-set and raising the plant's immunity and its resistance to bad weather conditions, as well as greatly helping to ease the transition and foliar absorption of cations such as (potassium, calcium, magnesium, and manganese).



The Phosphorus role in plant :-

- Phosphorus (commonly referred to as "phosphate") is the basic building block for all vital processes
- It is a major component of ATP, the energy compound in plants. It is also a major factor in biochemical reactions in plants, and it is noted that it has a role in receiving and converting solar energy into useful compounds, starting from the seedling growth stage until the harvest process.
- It is necessary for the general health of the plant and raise its immunity and resistance to bad conditions.
- Phosphorus stimulates the process of root production and thus has a major role in increasing the root system.
- It is involved in seed production and increases the ability of Leguminous plants to fix nitrogen.
- It is very important to complete cell division and growth, as it is involved in the synthesis of nucleic acids and proteins.
- It is very important in the processes of respiration, as it is involved in the synthesis of respiration enzymes in the plant.
- An important element for the completion of the metabolism process and the formation and conversion of carbohydrates (such as the conversion of starch into sugar).
It has a role in representing the fats inside the plant.
- An essential element for the process of fruit growth and accelerating its ripening.
- It is the basis of energy compounds and their transmission within the plant.
- Increases plant resistance to frost and drought resistance.
- A catalyst for the transport of nutrients within the plant, especially positively charged cations.

Phosphorus

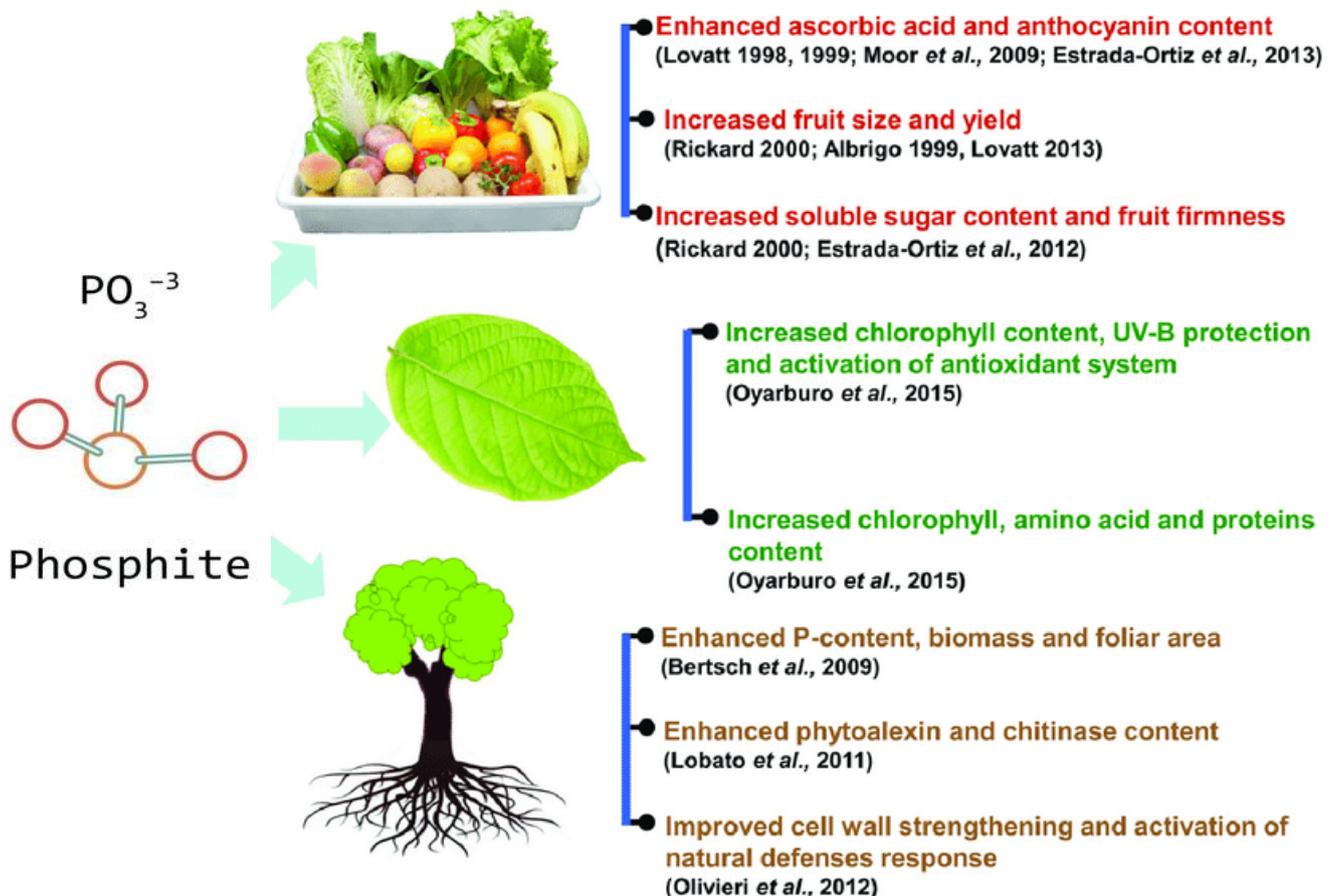


Other nonmetals	Solid
Cubic	Weakly acidic



The Importance of Phosphite PO_3^- :-

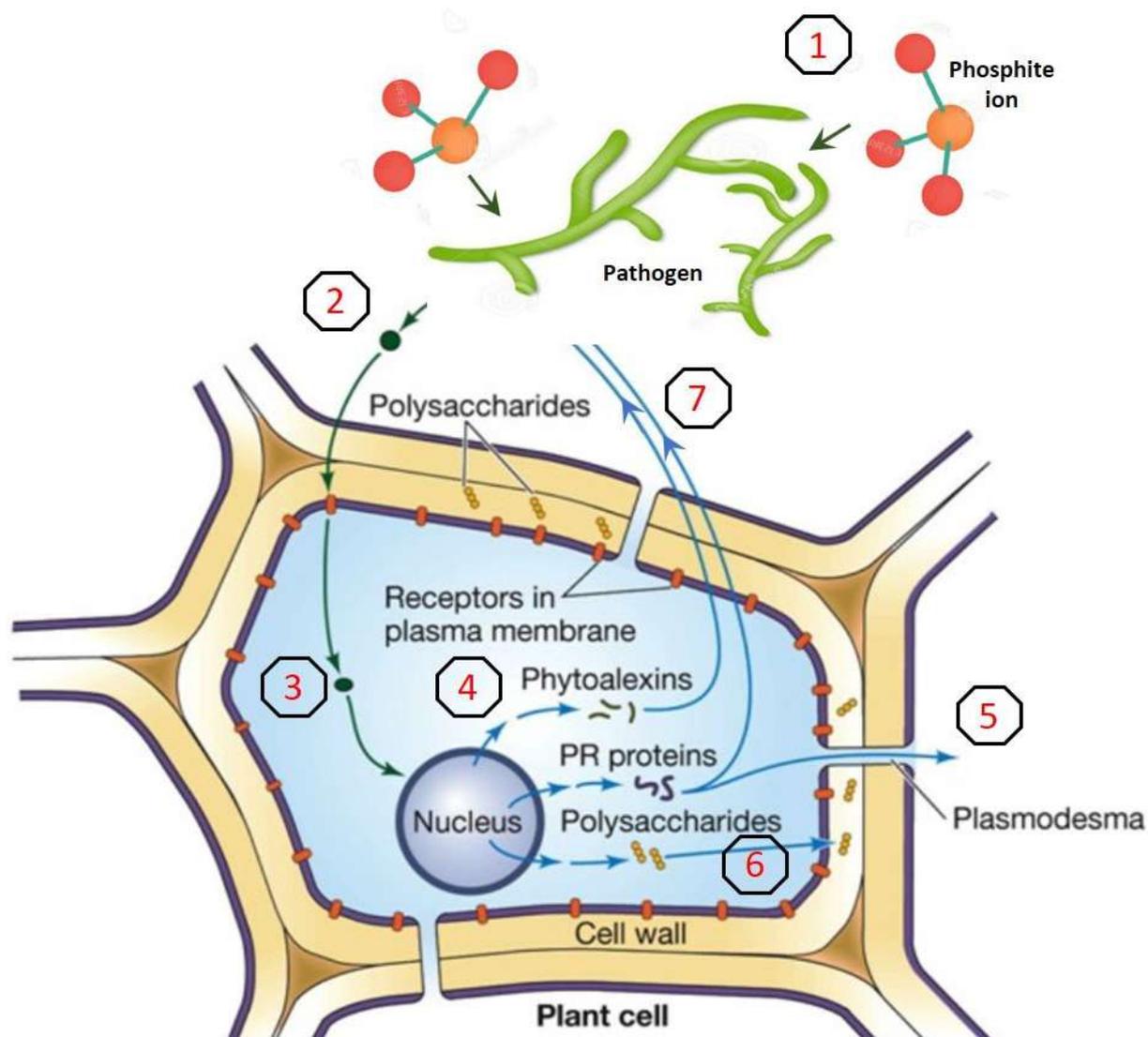
- Phosphite is the salt of phosphorous acid, H_3PO_3
- It does not cause air pollution as in other sources of phosphorus.
- Phosphite is also characterized by the ease of movement within the xylem and bark together.
- Phosphite acts as a biostimulant and plant growth stimulant, as it raises the production of ascorbic acid and anthocyanins in the plant.
- When using Phosphite, you do not need large quantities of it to get the desired results.
- increases the plant content of chlorophyll, amino acids and protein and increases the resistance of cells to UV rays
- Very good at quickly treating phosphorus deficiency in plants.
- Increasing the percentage of phytoalexins and chitins in plants, which are substances that raise plant resistance to various infections.
- It strengthens the walls of plant cells and protects them from disease, especially phytophthora.
- It significantly raises productivity, size and quality of fruits and increases the percentage of sugar in fruits.
- It raises plant immunity to a high degree against any external factors such as injuries, weather and high humidity





How does phosphite increase plant resistance to diseases:

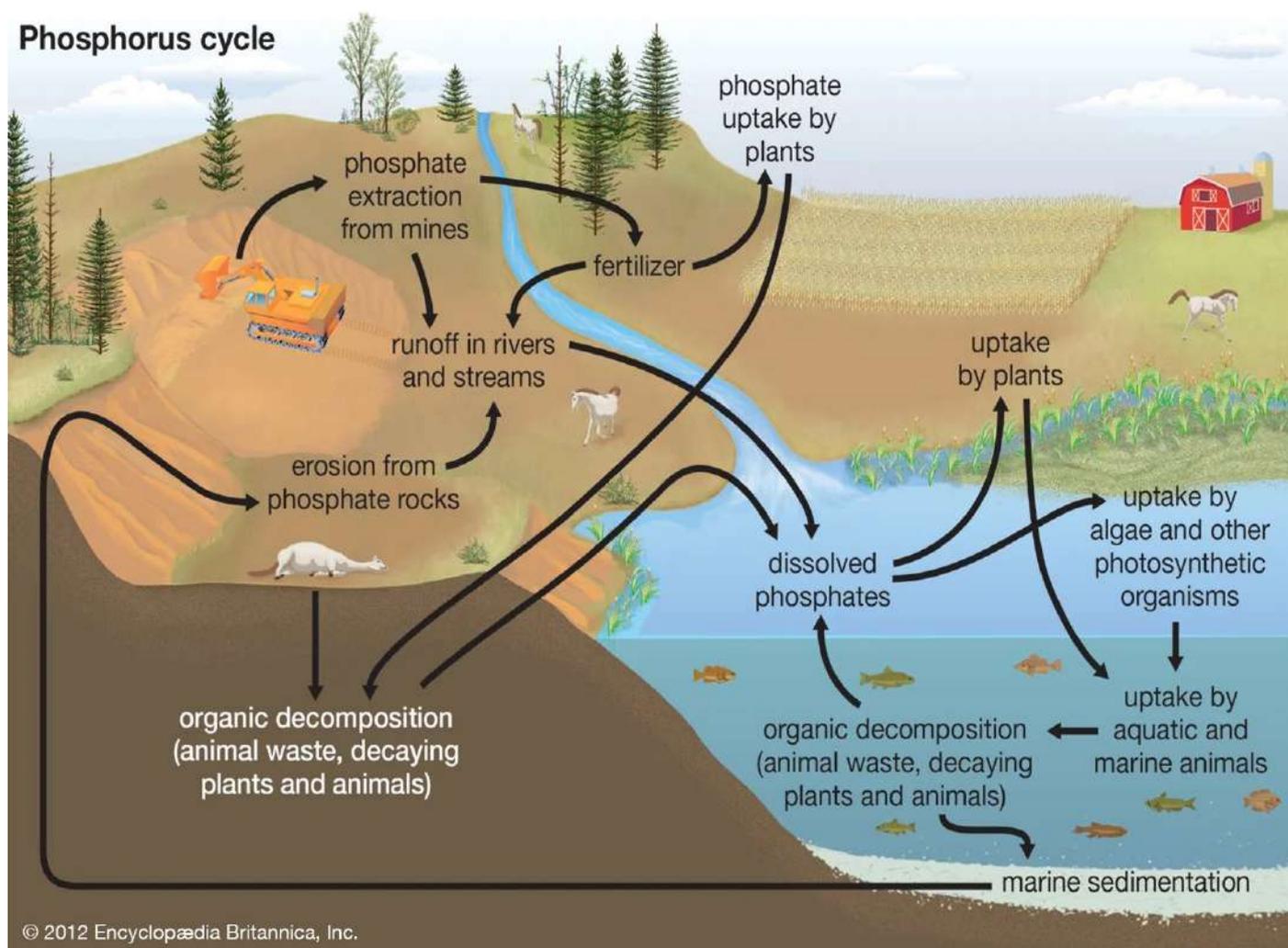
- 1) Phytophthora fungus is affected by phosphate spray.
- 2) The level of activity of plant inhibitors decreases.
- 3) The plant cell begins to notice the incoming danger.
- 4) Phosphite begins to encourage the defense compounds produced by the plant cell nucleus, such as phytoalexin + BR protein + polysaccharides, to attack the fungus directly.
- 5) These defensive compounds send an alert to neighboring cells that have not yet been infected with the fungus.
- 6) The polysaccharide compound increases the hardness of the cell walls adjacent to the infected cell and increases its immunity against fungal infection.
- 7) In the end, the fungus hyphae cannot complete its mission of infecting the rest of the plant cells, so it stops feeding, and the plant produces enzymes that analyze the fungus cell wall, so its life ends and dies



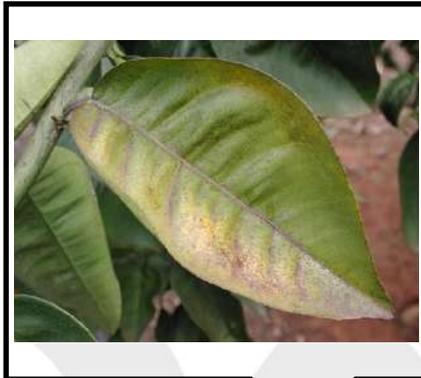
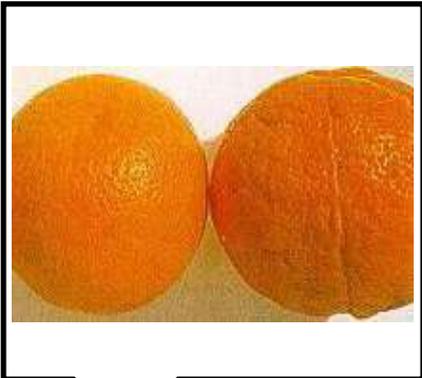


Why Omex DP 98 :-

- A rich source of phosphorus, which is found in the fastest absorbing form, which is phosphite.
- It contains potassium in the form of potassium oxide, and it works to quickly improve the characteristics of the fruits (size - color - taste).
- The presence of the two forms, phosphorous and potassium, leads to an increase in the size of the fruits and increases productivity and quality.
- It works to warm the plant and roots clearly and quickly, especially in difficult winter times, and to protect plants from frost.
- Phosphate stimulates defense cells such as phytoalexins and proteins to directly attack the diseased injury compared to plants that do not contain phosphite.
- Increase Plant resistance to fungal diseases because it contains phosphite, which is the source of the mineral phosphorus that living organisms feed on to use in their vital processes such as carbon dioxide fixation, energy conservation and storage, or in the production of adenosine triphosphate (ATP) through aerobic and anaerobic respiration.



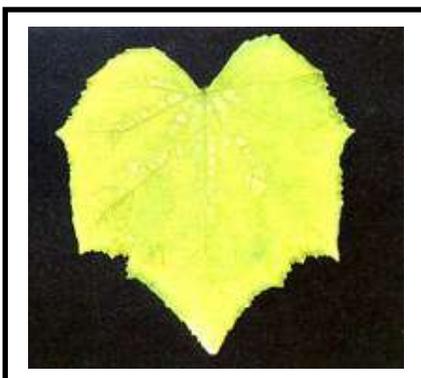
Symptoms of phosphorus deficiency in different crops



Phosphorus deficiency in citrus



Phosphorus deficiency in tomatoe

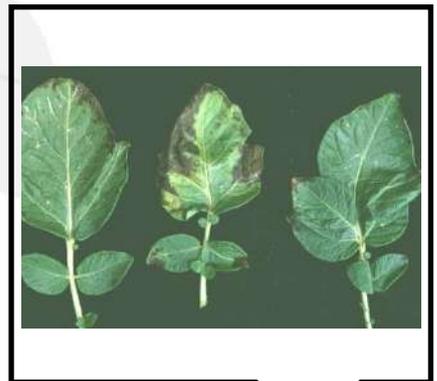


Phosphorus deficiency in cucumber

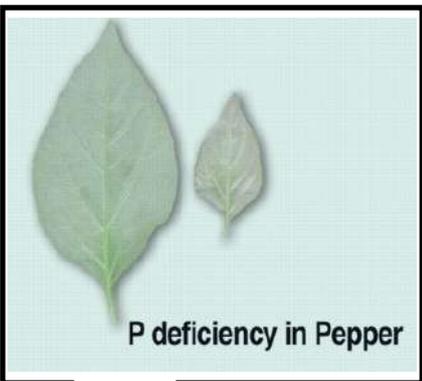
Symptoms of phosphorus deficiency in different crops



Phosphorus deficiency in onion



Phosphorus deficiency in potato



Pepper



Strawberry



Wheat



Composition %:

Phosphorus	Phosphite (in the form of p2o5)	Potassium	Chlorine	PH	Density
% P ₂ O ₅	% PO ₃	% K ₂ O	Cl	PH	°18 C
37.8	37.8	17	2 >	5.0 : 6.0	1.35

How to use and Dosage :-

Crop	Dose	Spray Times	Spray frequency
Lettuce	4 L / Hectare	After 7-10 day of planting time	After the first one by 10-14 days
Citrus - Apple		Beginning of flowering stage	
Strawberry - Ornamental plants		2 weeks Before flowering	Repeat after 21 day
Onion - Cabbage - Carrots	2 L / Hectare	After 2-4 real leaves	Repeat as needed
Potato		Beginning of tuber formation	Repeat after 14 day
Eggplant		After 2-4 real leaves	Repeat as needed

Usage recommendations :-

- Omex DB98 accepts mixing with most but not all insecticides, growth regulators and microelements. It accepts mixing with all Omex compounds, for example (Calmax - Nami), and gives quick and noticeable results.
- The spray tank should be half filled, then DP98 should be added to the tank and the rest of the tank should be filled with water to correct the diluted solution
- When mixing it with any of the insecticidal compounds, a mixing experiment must be done before use, because it may not be compatible with it, as this depends on the manufacture of the pesticide, crop conditions, vegetative growth, weather, and the condition of the water used.
- Omex DB98 is for foliar spraying.
- It should be stored under good ventilation conditions at a temperature of 5-40°C.
- It is a non-hazardous and non-flammable foliar fertilizer.
- Gloves and a face mask must be worn .

Packing:

Omex DP available in 1 and 5 Liter