VAN IPEREN®
GROW FOR THE BEST

OPTIFOS

Clean, Feed, optimize for High tech Hydroponics

Horticentre Group | Horticentre TasmanCrop

OPTIFOS

- Ever wondered why your P fertilization seems to have a reduced efficiency?
- Are you having problems of clogged irrigation systems?

(Symptoms of P deficiency on tomato)

Optifos Liquid

How will it help you?

- Cleaning the dripping system
  - Catching anorganic (ations) pollution
  - Limited possibility for organic pollution

- To increase Phosphate availability
  - Less precipitation in highly concentrated stock solution
  - Less sensitive for pH in the dripping system
  - When a high level of P is needed or when limited frequency of watering

OPTIFOS – What makes it special?

Ortho-phosphates

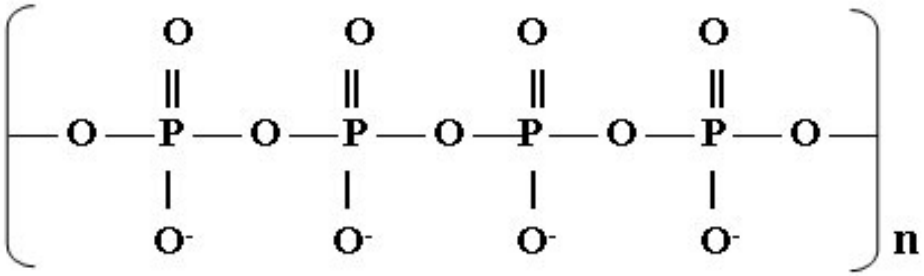
- Traditional P fertilizers (like MAP, MKP, or Phosphoric Acid)
- Precipitation => Unavailable to crops.
- Loss of phosphates and increase in mineral residues in your irrigation system

Poly-phosphates

- OPTIFOS
- ***NO*** precipitation = > Available for crops.
- Optimization of your P fertilization: ***NO*** Loss of phosphates

Optifos – What makes it special ?

- ***Polyphosphates in Optifos will start hydrolizing into Orthophosphates that can be assimilated by plants ONLY when they reach the roots and will gradually release their Phosphates under the influence of root activity***



"Opti" for Optimization of your P Fertilization

OPTIFOS – There's more!

The special "Polyphosphate" chemical structure is able to bind mineral residues and "leftovers" of other fertilizers that

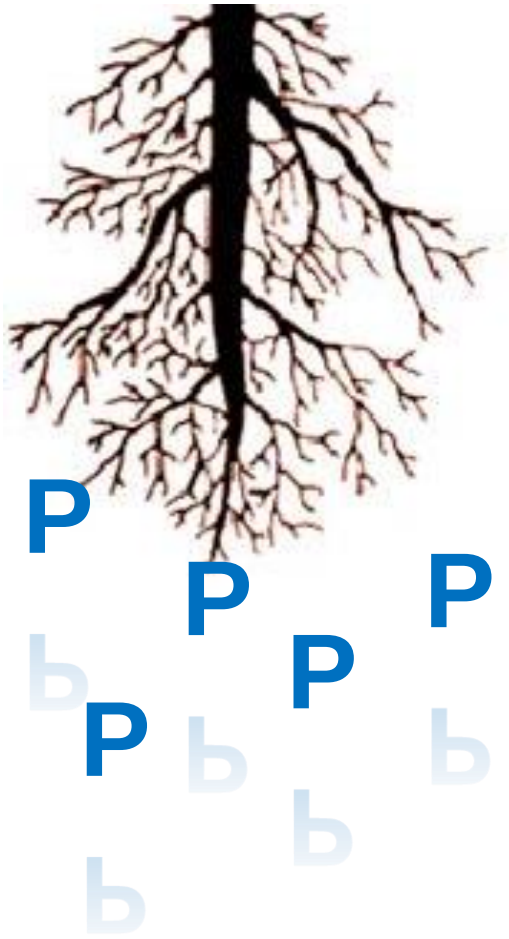
1. Precipitated and are unavailable for the plants
2. Can clog your irrigation systems

In other words, CLEAN system, INCREASED nutrient availability => LESS COST!

OPTIFOS – Agronomic Advantages

In Soilless mode, Optifos will:

- Promote and boost Root growth
- Unblock growth when P becomes a limiting factor for the plant
- Is very effective in case the root system is not active enough (due to stress or cold temperatures)
- Ideal for recovering from intensive growth / fruiting periods



OPTIFOS – Characteristics

- **K_2O 25.0% w/w | 37.0% w/v**
- **P_2O_5 16.4% w/w | 24.2% w/v**
- **Cleans irrigation system from mineral pollution**
- **Guarantees phosphate availability to plants with <u>reduced risk of precipitation</u>**
- **Highly pure colorless liquid**

Available in packages of IBC, 220 l, 20 l, 10 l, 5 l and 1 l

OPTIFOS – Dosing instructions

Cleaning

20% of the total phosphates required should be given as Optifos, this is about 0,5 mmol / l

Increasing Phosphates availability

40% of the total phosphates should be exchanged, this is about 1,0 mmol / l

OPTIFOS – Use Instructions

Step by step

1. Fill your tank for 10% with water and add the required acid (rest of phosphates)
2. Flush your filling lines
3. Add Optifos. Be careful: CO_2 will be set free and can cause foaming
4. Flush your filling lines
5. pH should be below 5. Add extra acid in case needed, in order to overcome a white precipitation
6. Add other required fertilizers

Dosing separately from the trace elements and calcium nitrate tank!

Optifos Liquid

Conversion table

Below mentioned amounts are valid for a 1.000 l tank, 100 times concentrated

Standard source of phosphate used	Keeping a clean system (0,5 mmol / l)	Increasing phosphate availability (1,0 mmol / l)
Using Phosphoric Acid 59%	Add: 14,6 l Optifos 15,0 l Nitric Acid 38% Reduce: 5,8 l Phosphoric Acid 59% 11,5 kg Potassium Nitrate HG	Add: 29.2 l Optifos 30.0 l Nitric Acid 38% Reduce: 11,7 l Phosphoric Acid 59% 23,0 kg Potassium Nitrate HG
Using Monopotassium Phosphate	Add: 14,6 l Optifos 8,7 l Nitric Acid 38% Reduce: 6,8 kg Monopotassium Phosphate HG 6,5 kg Potassium Nitrate HG	Add: 29,2 l Optifos 17,3 l Nitric Acid 38% Reduce: 13,6 kg Monopotassium Phosphate HG 13,0 kg Potassium Nitrate HG
Using Monoammonium Phospate	Add: 14,6 l Optifos 8,7 l Nitric Acid 38% 6,2 l Ammonium Nitrate Liquid Reduce: 6,8 Kg Monoammonium Phosphate HG 12 kg Potassium Nitrate HG	Add: 29,2 l Optifos 17,3 l Nitric Acid 38% 12,4 l Ammonium Nitrate Liquid Reduce: 13,6 Kg Monoammonium Phosphate HG 24 kg Potassium Nitrate HG