



**Ready  
for use**

# Haifa GrowClean

## Sodium free phosphate fertilizer with cleaning effect

Multi-K potassiumnitrate, Haifa MKP® and Haifa MAP®: these fertilizers are used throughout the world in (greenhouses) horticulture and have been produced by Haifa for many years.

### Polyphosphate remains available

The phosphate in traditional fertilizers (such as MKP®, MAP® and water soluble NPK) is in the form of orthophosphate. This type of phosphate has the characteristic that it easily forms a compound with calcium, magnesium and iron. As soon as this compound is formed it will participate in the system. It is then no longer available for the plant and can even cause blockages of the dripping system.

At a higher pH and/or a large volume of phosphate the amount of participation will increase. The result of this; less phosphate is available for the plant. An increase of phosphate does not result in improved availability for the plant because this precipitation reaction increases unproportionally.

After the introduction of polyphosphate many growers saw that polyphosphate in a low dosage, keeps the system clean from participation and in a higher dosage it gives extra vegetative growth to the plants. Disadvantage of the use of polyphosphates is the high pH of the product which makes it necessary to add acid in the fertilizer tank and sometimes it contains a high level of sodium.

With the introduction of Haifa GrowClean this disadvantage is a thing of the past. Haifa GrowClean contains 50 percent polyphosphate. The pH of the tank solution after adding the product (depending of the water quality) will stay below 5, which is necessary for the fertilizer solution! So adding acid to compensate the high pH is no longer necessary. Haifa GrowClean is sodium-free and ready and easy to use.

### Benefits Haifa GrowClean

- It cleans your dripping system and prevents mineral deposits
- All mineral elements are available and remaining available
- Ready-to-use product: adding acid to the system is not necessary
- Can be added directly into the fertilizer tank
- Low sodium





## How does it work

The unique polyphosphate used in both products remains stable in the solution even at a high pH and a high dosage rate (above 62 mg/ltr P). It does not give any precipitation with other elements. The polyphosphate even ensures that elements - which have precipitated - are redissolved. So growers are achieving an improved efficiency of the elements that are provided.

## Dose for a clean system

The standard recommendation is a dose rate of 30.9 mg/ltr P from Haifa GrowClean (if used from the start of the season - and the system is clean - a dose rate of 15.5 mg/ltr P from Haifa GrowClean is enough).

## For more vegetative growth

The recommendation is a dose rate between 30.9 and 61.8 mg/ltr P from Haifa GrowClean\*.

## Haifa GrowClean composition

Elements	Haifa GrowClean
NO <sub>3</sub>	5 % (5,5 % N)
P <sub>2</sub> O <sub>5</sub>	31 % (13,6 % P)
K <sub>2</sub> O	40 % (33,5 % K)

Assuming a 1000 ltr tank 100 times concentrated the following amount is needed:

Dose	Haifa GrowClean
15.5 mg/ltr P	11 kg
30.9 mg/ltr P	22 kg
46.4 mg/ltr P	33 kg
61.8 mg/ltr P	44 kg

*\* The recommended doses are averages for all crops. Not all crops react in the same way to GrowClean. Therefore it's advisable to discuss the exact dose with your adviser or supplier.*



For more information contact your Haifa supplier or advisor.

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