

# Cultivation programme for greenhouse crops grown in soil



Healthy, safe and  
sustainable cultivation



**PHC**  
Plant Health Cure

**We Grow Soil.**

PHC cultivation programmes are specially developed to improve the health of soil, plants, humans and animals while simultaneously fixing more CO<sub>2</sub> in the soil. The programmes' ultimate aim is to minimise the use of synthetic fertilizers.

Optimum plant nutrition is more than the sum of various minerals. As synthetic fertilizers give plants only a few nutrient elements, organic manure is needed to boost soil life and the soil's humus content and supply of minerals.

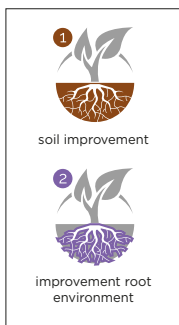
A plant's health is largely dependent on the soil. Most plant diseases can be easily prevented by ensuring healthy soil, good growing conditions and a mycorrhizal root system.

For questions or advice, please send an e-mail to [info@phc.eu](mailto:info@phc.eu)



*Firmenich (3 weeks) untreated vs treated.*

## Start at the time of planting



Soil is often tilled so thoroughly before planting that very little (healthy) soil life remains. For this reason PHC advises growers to apply mycorrhizal fungi and beneficial root bacteria at the time of planting.

**Biovin** is a unique soil improver based on humified grape must with a high concentration of bacteria. It helps to improve the balance of beneficial organisms and contains a wide variety of trace elements that boost plants' immunity.

**Biovin Granular** contains many beneficial bacteria and fungi supplemented with stone powder and natural fulvic acid. It helps to improve the balance of beneficial organisms and contains a wide variety of trace elements that boost plants' immunity. Good scattering properties make this soil improver easy to use.

**VA PWI** consists of pure spores of mycorrhizal fungi. Mycorrhizae constitute the basis for improving soil and crops.

They grow from the plants' finest roots, forming a micro-fine absorption system in places

that roots can't reach. This way they ensure a more efficient uptake of nutrients and water, reducing the need for irrigation. The special mycorrhizae and root bacteria are to be applied in a single dose.

**MooR** is a liquid mixture of natural fulvic acid and six bacterial strains. The fulvic acid greatly improves the uptake of trace elements from the soil, often eliminating the need for chelated fertilizers. Root bacteria release minerals from the soil. The most important characteristic of MooR is its ability to release fixed phosphate.

**Compete Plus** is a product containing natural root bacteria and a few fungal species. It improves soil life, releases minerals and helps plants to absorb them, and boosts the plants' resistance.

**Fulvic 25** is a natural product produced from Dutch groundwater. Containing 17% fulvic acid and 3% humus, it acts as a chelator in the uptake of minerals.

# Natural fertilization and plant improvement



Healthy soil can only be ensured by using as much organic manure as possible. By boosting soil life, organic (plant and animal) manure greatly improves the soil's capacity to be penetrated by roots and its uptake capacity.

Healthy, uniformly growing plants are very resistant to pests and diseases. Natural plant improvers can help plants produce extra repellents - in a healthier way, with smaller volumes of residues and less burden on the soil, humans and the environment.

**OPF Granular** is a 100% vegetable product that promotes the natural formation of humus in the soil while still ensuring sufficient supplies of nitrogen for the plants. Plants readily absorb OPF Granular and it can be easily scattered on the land.

**OPF Liquid fertilizers** are 100% vegetable products that promote healthy plant growth. Plants can absorb the various amino acids contained in these liquid (foliar) fertilizers even at fairly low temperatures. OPF liquid fertilizers don't involve a risk of scorching.

**Natural Green Forte** is a foliar fertilizer containing calcium, silicon, magnesium and trace elements that are effectively absorbed. The product increases sugar and vitamin concentrations, improves photosynthesis and ensures a more active metabolism. Natural Green Forte can be easily dissolved and is readily absorbed by plants.

**PreTect** is a protein-rich foliar fertilizer containing the well-known harpin protein. Harpin is a plant improver that prompts plants to form jasmonic and salicylic acid, boosting their resistance to infections from inside the plant.

## Water management



Water is essential for all forms of life. Too little water in soil will cause plants and soil life to dry out, whereas too much water leads to oxygen deficiencies, causing soil life to die, affecting plant roots and

preventing the uptake of nutrients. So a good distribution of moisture is of the greatest importance.

**Yuccah** is a biological spreading agent that reduces compaction and water-repellent properties of soil. When applied to foliage, Yuccah will dry faster.

**AgroAcid** is a product for lowering the concentration of bicarbonates and the pH. It is also used to improve the water used in overhead and drip irrigation systems and substrate crops. AgroAcid contains no acids, is harmless for the environment, non-corrosive and 100% biodegradable.

## Analysis

We advise you to have a mycorrhizal analysis carried out before using any of the above products. Arrange for another analysis to be performed at the end of the season. The PHC laboratory is specialised in performing mycorrhiza analysis for all crops. Contact [info@phc.eu](mailto:info@phc.eu) for a sampling kit.



*An untreated plant after 5 weeks versus a plant treated with PHC's cultivation programme after 3 weeks.*

**The combination of the above products will ensure optimum cultivation of strong flowers with a good keeping quality.**

**For more information on these products see our website: [www.phc.eu](http://www.phc.eu).**



# We Grow Soil.

## Product programme for greenhouse horticulture

Apply the products after steaming. Carry out plant sap measurements during the crop's development to monitor the actual uptake of nutrients. Different crops may need different doses. Consult your PHC cultivation adviser for tailor-made advice.

<b>Crop 1</b>	<b>Seedbed preparation</b>		<b>Method</b>	<b>Dose</b>
	Biovin (Granular)		sowing	100 gr/m <sup>2</sup>
	OPF granular 11-0-5		sowing	100 gr/m <sup>2</sup>
	<b>Planting/sowing</b>		<b>Method</b>	<b>Dose</b>
	Compete plus		pouring	0,2 gr/m <sup>2</sup>
	Fulvic 25		pouring	2 ml/m <sup>2</sup>
	<b>Weekly application</b>		<b>Methode</b>	<b>Dose</b>
	OPF 7-2-3		pouring	1 ml/m <sup>2</sup>
	OPF 4-2-8		pouring	1ml/m <sup>2</sup>
	Fulvic 25		pouring	0,1 ml/m <sup>2</sup>
	Yuccah		pouring	0,1 ml/m <sup>2</sup>
	Compete plus		pouring	0,02 gr/m <sup>2</sup>
	<b>Application in weeks 3 and 6</b>		<b>Methode</b>	<b>Dose</b>
	Natural Green Forte		spraying	0,09 gr/m <sup>2</sup>
PreTect		spraying	0,09 gr/m <sup>2</sup>	

<b>Crop &gt; 2</b>	<b>Seedbed preparation</b>		<b>Method</b>	<b>Dose</b>
	Biovin (Granular)		sowing	60 gr/m <sup>2</sup>
	OPF 11-0-5		sowing	110 gr/m <sup>2</sup>
	VaPWI		spraying	0,1 gr/m <sup>2</sup>
	<b>Planting/sowing</b>		<b>Method</b>	<b>Dose</b>
	Compete plus		pouring	0,2 gr/m <sup>2</sup>
	Fulvic 25		pouring	2 ml/m <sup>2</sup>
	<b>Weekly application</b>		<b>Method</b>	<b>Dose</b>
	OPF 7-2-3		pouring	1 ml/m <sup>2</sup>
	OPF 4-2-8		pouring	1ml/m <sup>2</sup>
	Fulvic 25		pouring	0,1 ml/m <sup>2</sup>
	Yuccah		pouring	0,1 ml/m <sup>2</sup>
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