

PHC-grapes cultivation program.

PHC Foliar feeding schedule.*

Product		4 - 6 leaves stage	Prior to blooming	At fruit set	Bunch closing	Start coloring (Veraison)
	Dosage	BBCH 14	BBCH 57	BBCH 70	BBCH 77	BBCH 81
PreTect	400 g/ha		x	x	x	x
Natural Green	1,5 kg/ha	x	x	x	x	x
Fulvic 25	1-2 L/ha 7-14 days	x	x	x	x	x
OPF 7-2-3	3-4 L/ha 7-14 days	x	x	x		
OPF 5-2-5	3-4 L/ha 7-14 days				x	x

**foliar fertilization apply preference based on advice and analyses*

Products and application.



Natural Green: Natural micronized calcium with a size of max. 4 micron which makes it easy to absorb by the leaves. Always combine this with Fulvic 25 for good calcium mobilization.



PreTect 2.0: Specific trace elements for excellent plant development with harpin protein. Mobilizes calcium, strengthens physiological development and enhances harvest quality. PreTect consist of a mix of micro trace elements in combination with proteins to activate plants own defence genes.



Fulvic 25: Fulvic 25 is a unique product and does not contain heavy metals. Fulvic 25 is the 'natural chelating agent' for all minerals.



OPF liquid fertilizers: Vegetable fertilizer, rich in amino acids. Contains essential substances for de-stressing the crop. Available in N.P.K combinations: 7-2-3, 5-2-5 and 4-2-8.



OPF Granular 11-0-5: Rich in amino acids and sugars. High nitrogen content with a slow release (50% in the first 4 weeks). Energizes the soil and the plant.



TerraPulse: Energy-rich soil enhancer. Contains various minerals, Fulvic 25 and a rich array of microbiology in the form of bacteria and fungi Essential for decomposition of organic material.

Grapes. Cultivation program.

The way to a healthy harvest.

Mildew on grapes.

Powdery mildew and **downy mildew** can cause severe damage in grape cultivation. Traditionally, copper and sulphur have been used to temporarily inhibit and prevent these damaging diseases.

Plant resistance studies show that plants are more resistant to threats if they can absorb the necessary minerals in a balanced way. Only then do they develop natural defences against harmful fungi. A good selection of soil microbiology increased mineral up-

take by plants. The increasing amount of copper in the soil has a negative effect on soil microbiology as well as on the rhizosphere biology.

The high amounts of sulphur and copper in the soil cause a shift in the absorption capacity of other minerals. The result is that plants suffer from invisible mineral deficiencies that weaken the plants and undermines their capacity to keep infections out.

The importance of foliar feeding.

Regular foliar feeding has an increasingly important role in grape cultivation. A balanced composition of amino acids and minerals, among other things, will increase growth, crop quality and resilience.

Contrary to the use of synthetic nitrogen based foliar feeds, the use of vegetable amino acid fertilizer OPF 7-2-3, does not act on the expenses of the crop's energy. OPF 7-2-3 adds energy to the plants, while synthetic products need the plant's energy to be absorbed. Calcium and cell count are important

prerequisites for large and full grapes. Foliar fertilization with specific nutrients such as manganese, boron, Natural Green and vegetable amino acids adds to the plant vitality and calcium mobilization. Extra calcium further ensures a greatly increased defence. Grapes grow best with 100% organic fertilizers.

Good photosynthesis is very important for crop resilience and soil biology. Regular foliar fertilization stimulates photosynthesis, enhances plant physiological development and improves harvest quality.

TIP!

To reduce the infection pressure of downy mildew in the Vineyard as much as possible it is essential to reduce the most important infection source, the fallen leaves. These leaves carry the oospores of downy mildew. The application of 600 kilo/ha of TerraPulse results in a quick degradation into soil organic matter of the leaves, while the fungal spores are decayed at the same time by the soil bacteria in the product.



Healthy soil leads to healthy cultivation.

Important products for soil improvement and root growth.

Soil is the key to healthy crops. Active biology with bacteria and mycorrhizal fungi provide daily availability of elements such as calcium and manganese. At planting of new vines, mycorrhiza can be inoculated using MycorDip. (This only needs to be done once in the lifetime of the vine).

Mycorrhiza inoculation is possible with (spoke wheel) injection in existing plant rows. Mycorrhizal fungi are rapidly activated in spring by spraying Colonize AG prior to rain or irrigation.

Active biology can be applied by spreading TerraPulse (available in granular form or powder). Spreading TerraPulse in the autumn will contribute to a better soil biology at the end of the winter period when the vines start new root growth. Application of Fulvic 25 as a mix with PreTect and/or Natural Green in the spring strengthens, among other things, calcium mobilization.

For more information and advice, please contact our crop advisors via the information below. You will also find more information on our website www.phc.eu/en



We Grow Soil.