

Aqua-Hort® Newsletter April 2017

This Newsletter sets out to bring actual information about Aqua-Hort.

1. Helleborus

The Helleborus crop is very prone to serious damage by Phytophthora. The crop is long underway making it costly to produce, it is finalized in open fields during the summer and autumn, where the attacks occur. Aqua-Hort can solve this problem. Many Helleborus growers are right now installing the system.

2. Soft fruit

The soft fruits, in particular Strawberries and Raspberries are often attacked by fungus like Phytophthora. Several trial installations are right now underway, after the initial good results in the 2016 season.

The picture below shows a Strawberry young plant grown with Aqua-Hort support in Holland.



Aqua-Hort® Newsletter April 2017

3. Potato Blight Trials

Potato Blight (*Phytophthora infestans*) is a wellknown pathogen in potato production. Crop rotation and preventive sprayings are the most common measures to prevent outbreak of attacks. Potatoes grown for starch production is in the western part of Jutland of great importance for the local economy. The amounts spend on fungicides reach very high numbers. For that reason Aqua-Hort will this season carry out a number of trials at a potato farm. The purpose of the trial is to investigate the effect and to establish the dosing levels. Foilage fertilization will be the application method. The amounts of free copper ions supplied will only be a small fraction of the amounts carried away by the crop. The issue of adding additional copper to the soil will not be there.



Aqua-Hort® Newsletter April 2017

4. Flood Floors

Flood floors and algae is an issue. The heated floors being flooded with nutrition water at regular intervals gets easily overgrown with algae, which is no good for several reasons. It has long been known that Aqua-Hort helps to remove algae from benches and water reservoirs. In cooperation with the Erfgoed company in Holland are more systematic observations now being made in respect to the flood floors. Erfgoed makes flood floors based on layers of lava covered by a solid cloth. This provides for an even distribution of the water and the resting of the antagonists in the lava during intervals between flooding. The observations made are promising. The cloth remains clean, the water is clear and the crop receives and holds free copper ions to prevent diseases and promote growth.



5. Aqua-Hort Dosing levels

The dosing levels applied by the Aqua-Hort users varies between the installations. This reflects the different growing practices and circumstances.

The data brought here are based on observations from a majority of the 860 machines in use.

No.	Crop	Medium	Recirculation	ppm
1.	Decorative Plants	Organic	Yes	1,5 - 3,0
2.	Decorative Plants	Organic	No	2,0 - 4,0
3.	Young Plants	Organic	No	1,5 - 2,0
4.	Young Plants	Inactive	No	1,0 - 1,5
5.	Vegetables	Inactive	Yes	0,5 - 1,0
6.	Vegetables	Inactive	No	1,0 - 2,0
7.	Vegetables	Water	Yes	0,2 - 0,4
8.	Vegetables	Water	No	0,4 - 0,8
9.	Bulb Forcing	Water	Yes	0,2 - 0,3
10.	Bulb Forcing	Water	No	0,8 - 1,0

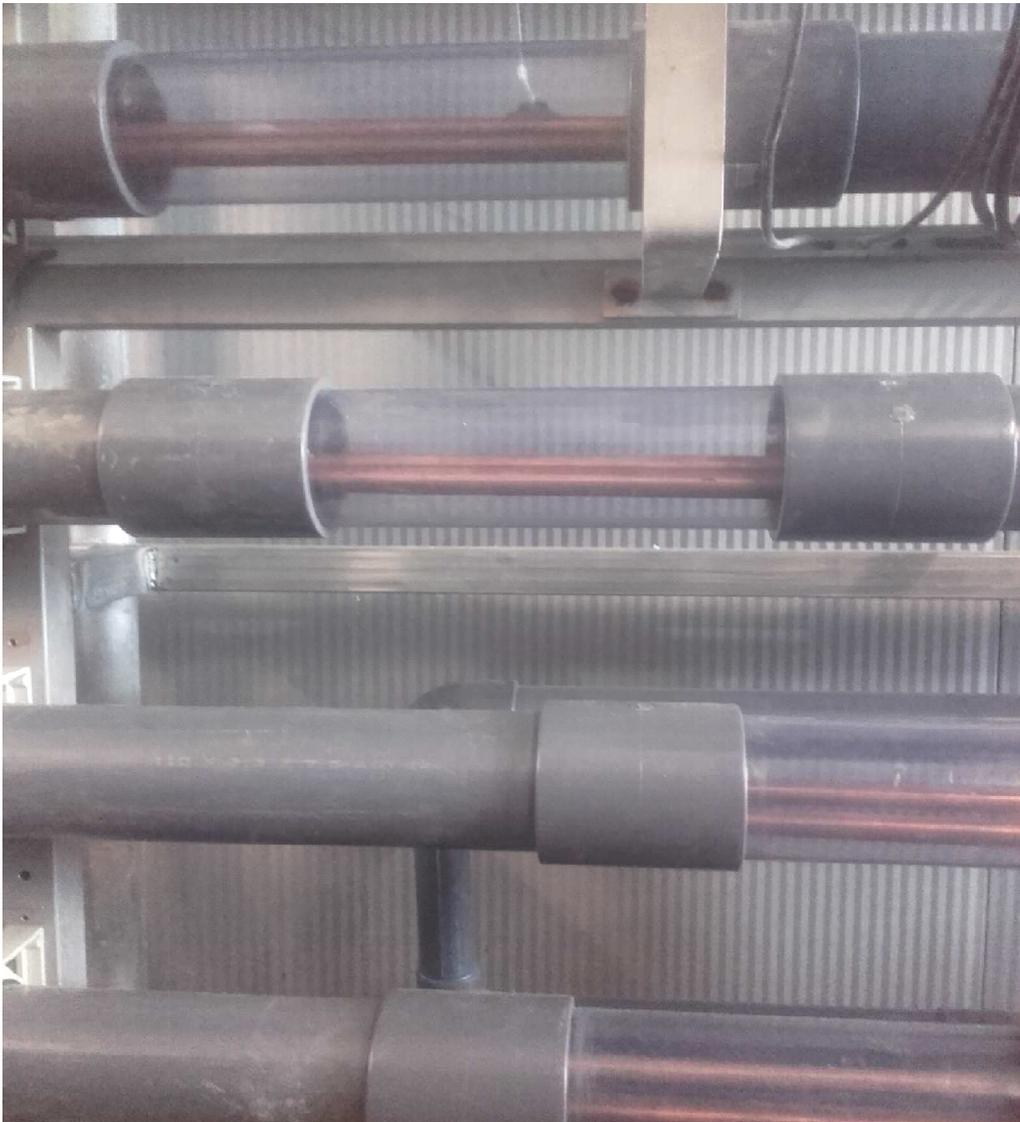
Aqua-Hort® Newsletter April 2017

6. Pulse Fogging Controls

In propagation areas where humidity is maintained by pulse fogging, it has shown to be a problem to achieve sufficient levels of free ions because of the very short periods of pulsing. Just a few seconds normally. To remedy this situation an additional Menu point is being added in the Aqua-Hort controls. It allows for extended operation time when the pulsing periods are very short. The length of the additional operation time can be chosen in the programme.

7. Visible electrodes

Christian Wimmer in Graz, Austria has provided his pipe model machine with pieces of transparent PVC pipe. This allows for easy visual inspection of the electrode conditions. Users who wish to have this possibility, can get a build in set from Aqua-Hort. It consists of four transparent pieces of pipe and 8 couplings.



Aqua-Hort® Newsletter April 2017

8. Benefits of Aqua-Hort Copper Fertilization and Electromagnetic Treatment

The benefits of using the Aqua-Hort system can be summarized as follows:

1. Prevention and curing of fungus and bacterial pathogens
2. Better Root growth and plant production
3. Dynamic system: Active constantly in the whole cropping system
4. No conflicts with beneficial fungus and bacteria
5. No burning of roots and leaves. No Chlor load in the crop
6. No handling of chemicals
7. Easy operation and maintenance
8. Low costs

9. Aqua-Hort Models

	<i>mm</i>	<i>m³/h</i>	<i>amp</i>	<i>Volt</i>	<i>Kg Cu</i>
1. Aqua-Hort 12 amp	75	0-4	12	0-24	11
2. Aqua-Hort Mini	75	0-12	33	0-48	22
3. Aqua-Hort Standard	90	0-30	65	0-24	33
4. Aqua-Hort Tank Model	400	0-200	65-400	0-24	186
5. Aqua-Hort Boat Model	500	0-400	65-400	0-24	186-372

10. New Aqua-Hort agent in Holland and Belgium

The Aqua-Hort agent in Holland and Belgium is now Ron van der Houven, VDH Water Systemen.

Tel: +31 6 30 37 82 94, info@vdhwatersystemen.nl, www.aquahort.nl.

Ron van der Houven has many years of experience with installation of water systems in greenhouses. He has worked with Aqua-Hort machines for the last 6 years.

Aksel de Lasson

Aqua-Hort®

Engdalsvej 28 8220 Brabrand

Tel: +45 70226611 E-mail: aksel@aquahort.dk Homepage: www.aqua-hort.dk