Pilot Test using Phyto-Cat in Hydroponic Green House Ponds

BACKROUND

Bio-Organic Catalyst, Inc., headquartered in California, has developed a breakthrough water treatment, currently being used in over ten countries, which helps solve major environmental problems in waste/water (nitrogen, organic pollution, H2S, odors), agriculture (water demand, soil health, crop yields) and industry (effluent, emissions, fouling) in a simple and profitable way.
Our **B**io-**O**rganic **C**atalysts ("**BOC**s") are highly concentrated liquid biocatalytic agents that immediately increase oxygen transfer, increase dissolved oxygen and break down biofilm and FOGs.
This triggers beneficial effects wherever water is present, so there are surprisingly many useful applications, including pulp & paper, cooling towers, agriculture, anaerobic digestion, aquaculture, fire control, hydrocarbon remediation, commercial cleaning and many others.
BOCs are a highly patented liquid fermentation of plant and mineral components with a small amount of a surfactant.
BOCs are easy to use (just add to water), cost-effective (just 1 - 4 parts per million), increase operating profits (important for rapid large-scale adoption) and are completely safe and green.

PRODUCT WE USED: PHYTO-CAT

Phyto-Cat™ is a technological breakthrough utilizing a safe green biochemistry that provides superior cleaning of inorganic mineral and organic slime layer fouling.
It also provides a powerful soil conditioning agent that promotes healthy aerobic soil microbiology.
The Phyto-Cat™ water treatment transforms irrigation cleaning into a Comprehensive water and soil conditioning model that allows enhanced water retention and percolation, helps with iron and salt accumulation, and optimizes nutrient uptake by plants.
Phyto-Cat™ contains a nutrient rich food source that enhances aerobic soil microbiology and the solubility of nutrients, allowing greater root growth and improving soil moisture retention.
Phyto-Cat™ attributes include:
• Maintains clean sand filters, irrigation lines and emitters.
• Promotes aerobic soil conditions and microbiology.
• Improves soil moisture penetration and retention.
• Enhances the bioavailability of nutrients.
• Improves root growth and plant health.

Phyto-CatTM is optimally used during all watering cycles at a dosage rate of 1 – 4 ppm of total water flow. This allows maintenance of the entire irrigation system, including sand filters, lines, and emitters, while simultaneously enhancing soil aerobic microbiology.

Phyto-CatTM can also be used on a periodic basis during the growing season, or concurrently with fertilizer use, to help maintain clean lines and emitters, or can be used for periodic cleaning of drip lines and emitters at a dosage rate of 1 liter (34 oz.) per acre.
Phyto-CatTM is non-toxic, non-caustic, and safe to handle.

Course of the PILOT TEST :

As part of the Pilot Test we performed a number of trials in different doses, at the end of the trial process, we reached an optimal dose which led to the desired results.

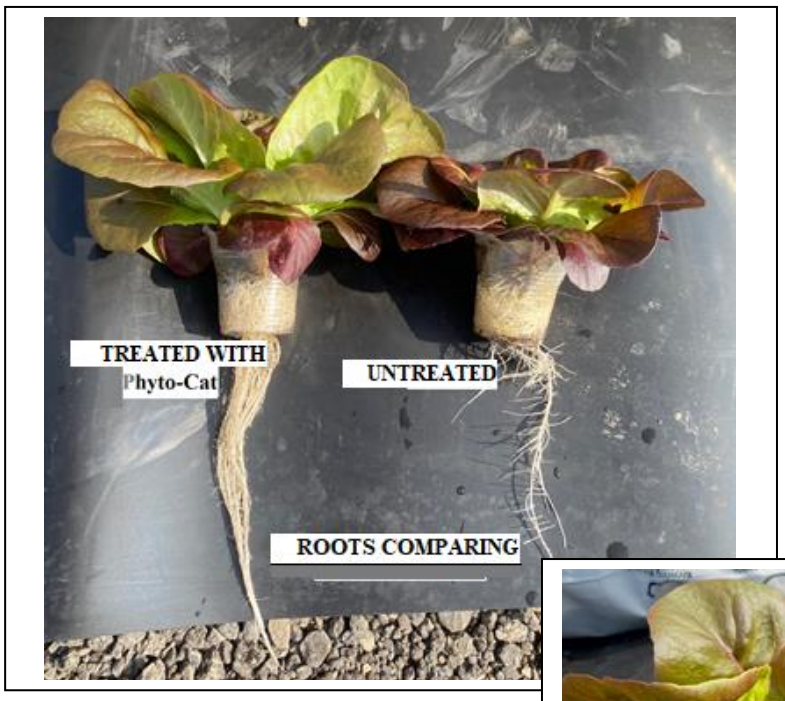
We repeated this dose twice, this repetition was performed to ensure a uniform sequence of results.

The main crops were red selenova and green selenova.

The ponds treated included 3 ponds measuring 117 square meters each with a volume of 30 cubic meters of growth solution.

VISUAL RESULTS:

6 DAYS AFTER STARTUP:



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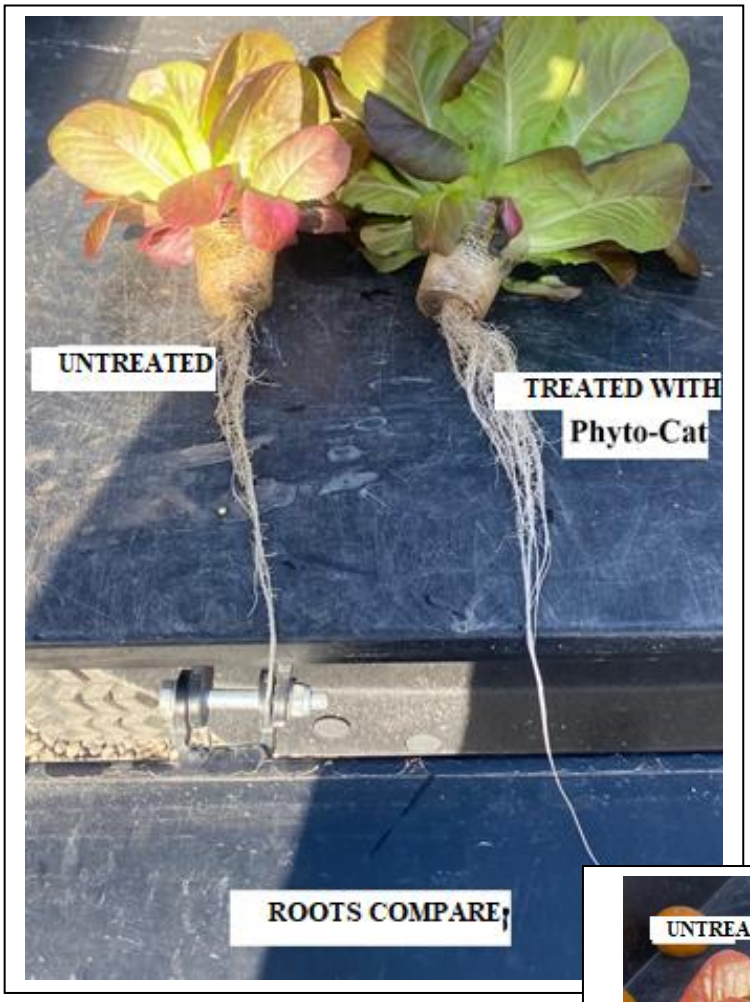
14 DAYS FROM START:



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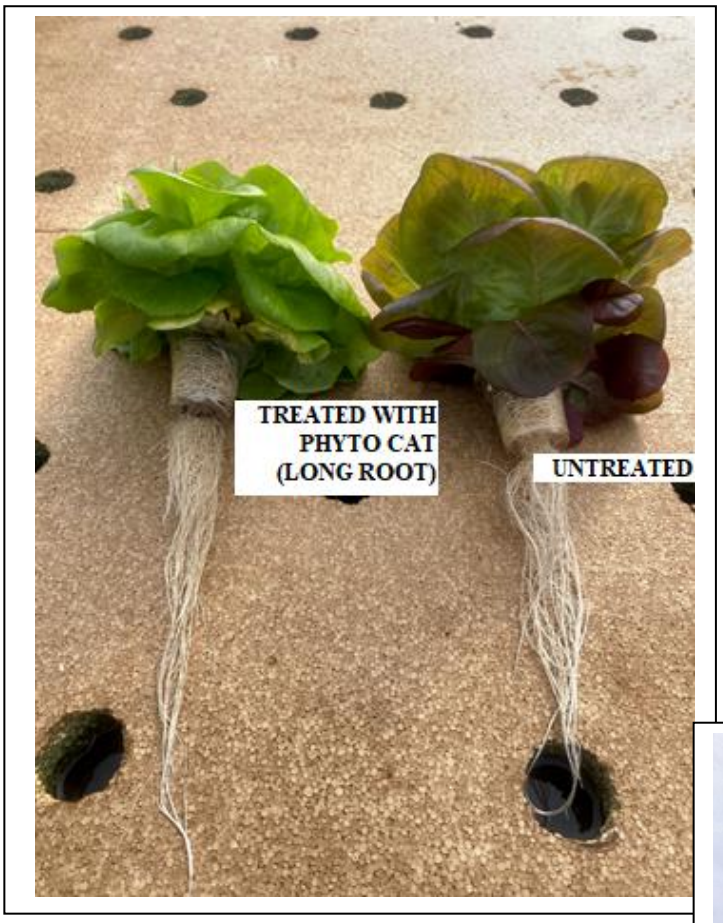
END OF PILOT BEFORE HARVEST:



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Pilot test results:

1. An optimal dose has been found for the use of the substance in hydroponic crops (it has been found that too high a dose impairs the growth and lowers the pH).

2. It was found that the dissolved oxygen level increased according to the root appearance and the growth rate.0

3. It was found that Phyto-Cat breaks down the calcium hydroxide and releases free Ca - calcium into the water in an amount that reaches more than 40% than in the control ponds.

4. The growth rate increased by up to 25% compared to the growth rate in the control ponds(meaning it lower the time growth to 20 days instead of 25 or more).

5. In the growth ponds the root appearance was brighter, thicker, of better quality.

(The results are based on an observation of Mr. Golan Rotenberg, the responsible grower and farm owner, https://www.rotenbergaa.com/home)

Conclusions:

The use of Phyto-Cat material significantly improves the quality of the plants, their size and their growth rate And in their health,

Looking from economical point of view comparison of its cost with the benefits, it is clear that Phyto-Cat also creates an economic opportunity and profits for the farmer who decides to use the material.

Eli Halperin-GM

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