



BIO-ORGANIC CATALYST
THE POWER IN NATURE®

CASE STUDY
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APPLICATION OF PHYTO-C₃TM FOR GROWING FLOWERS IN UKRAINE

PART 1

Initial Data

- 1) Peat substrate pH: 7.5; fraction: 0.25 mm.
- 2) Water pH: 7.0; iC: 0.5
- 3) Cultures:
 - Cyclamen
 - Royal Pelargonium
 - Begonia Elation

Results

1. The beginning of the tests: October 28, 2018.
2. Two treatments were carried out with Phyto-C₃TM doses of 50 ml and 25 ml per 10 liters of water (0.5% and 0.25%).
3. In parallel was conducted feeding by the main fertilizers with irrigation: iC of the solution: 1.6.
4. The main culture of the study: varieties with problematic development.
5. After 50 days of observation, it was noted the followings:
 - Activation of the root system development.
 - Activation of development of lateral buds (axillary shoots).
 - More stable condition - less damage by disease.
 - Increased resistance to adverse factors (temperature, lighting, water logging, drying, increased soil iC).
 - Reduction of the percentage drop in the array.
 - More active nutrient metabolism.
 - The number of chlorophylls in the leaves is almost the same with the control sample.
 - Peduncles on pelargonium are stronger, the size of the flowers has not changed (the problematic variety was chosen as an experimental one).

Notes

During the observation, all plants (50,000 pcs.), including the control, were watered and fed with the fertilizer complex + Phyto-C₃TM at the rate of 0.5 liters per 1000 liters of the aqueous solution.



During the study, the plants were fed with a standard fertilizer complex

1. Mineral fertilizer Planton K
2. Planriz M
3. Trichodermin
4. Pentaphage «C»
5. Humistar

Planton K	Humistar	Trichodermin	Planriz	Pentaphage
Balanced, N-P-K 16 + 11 + 24 with essential trace elements: magnesium, iron, manganese, zinc	Humic acid 12.0% Fulvic acids 3.0%	Based on antagonist fungus <i>Trichoderma</i> <i>viride</i> (lignorum)	Bacteria <i>Pseudomonas</i> <i>Fluorescens</i> AP33	Five strains of bacterial viruses

PART 2

Initial Data

One of the main crops was chosen for observation: *Pelargonium Grandiflorum*.

For more visual intervarietal observation was decided to select the most fastidious variety of *Pelargonium Grandiflorum*. Have thus identified the variety Adele.



10/29/2018: The first watering of the experimental site with a double dose of Phyto-C₃TM (50ml /10L)

11/09/2018: The second watering with Phyto-C₃TM with a normal concentration (25ml /10L)



Observation 1

Within the limits of one variety, positive growth dynamics of the vegetative mass was observed in the test plants relative to control plants:

1. The number and development of axillary buds.
2. The color of the experimental group has become more saturated.



Phyto-C₃TM

Control

Observation 2

Positive dynamics showed root system:

1. Root mass increase.
2. The development and appearance of the root mass has become more healthy.



Phyto-C₃TM

Control

During the second part of the study, the plants were fed with the same standard fertilizer complex as at the part one study.



