

Oakland Urban Growers

Third Party Validation



Objective: To evaluate the effect of Growthful plant optimizer on the growth and yield of different crops.

Application: Plant species were taken from the same seed lots, planted into the same flats with identical conditions, the same watering conditions, then the flats were divided in half between two hydroponic systems to ensure accurate controls. In order to map the different growth patterns among separate species of plants accurately, the plants were measured for weight, height, and root health as the primary comparisons.

Note: Aqueus products can be applied along with other crop protection and nutrient inputs that allow growers to use their existing crop care protocols.

Date: July 2018

Company: Oakland Urban Growers, Michigan (OUG)

Crops: Lemon Basil, Rosemary, Red Salad Bowl, Adriana, Black Seeded Simpson

About Oakland Urban Growers – OUG operates a seed-to-table hydroponic greenhouse in Oakland County, Michigan utilizing Nutrient Film Technique (NFT). OUG grows leafy green and has soil operations that are used for growing rooted vegetables. The tests mentioned below were replicated with controls in a 10,000 position hydroponic systems in a closed loop environment. OUG used 10-15 mL per gallon of Growthful per gallon of irrigation water and changed the tank water every 7 to 10 days.

RESULTS

LEMON BASIL

height: 10%
weight: 16%

1. All observed parameters of Lemon Basil, saw significant increases from the application of Growthful.
2. Improved weight, height, root health, and overall plant health were observed in all plants.

ROSEMARY

height: 29%
weight: 33%

1. Rosemary yields were increased by the Growthful applications.
2. The plants treated with Growthful were healthier in size, root development, number of branches and leaves, which was reflected in a higher weight compared to the control plant.

RED SALAD BOWL

height: 25%
weight: 17%

1. The difference in the weight of the tested and control plants was observed starting from the 3rd week.
2. The root of the treated plant was observed to be more robust. Root health was visually assessed by density, color, and number of secondary root hairs.

ADRIANA LETTUCE

height: 25%
weight: 14%

1. Adriana yields were increased by the Growthful applications.
2. The difference in the weight and height of the treated vs. control plants was observed right from the first week.

BLACK SEEDED SIMPSON

height: 33%
weight: 30%

1. Black Seeded Simpson yields were increased by the Growthful applications.
2. The root of the treated plants did not degrade compared to the control plant. Root health was visually assessed by density, color, and number of secondary root hairs.

RESULTS SUMMARY

The test product, Growthful positively affected weight, height, root health, and overall plant health.

Weight, height, and root health were recorded at higher levels in most of the test plants compared to the control plants.

Overall, OUG was able to grow lettuce heads faster reducing harvest time by one week, thus improving grow cycles per year.

