

Evaluation of Nature's Wonder APEX-10 on the Growth and Production of Medical Marijuana

This Study Was Conducted In A State Within The United States Where Growing Marijuana For Medical Dispensaries And Critical Care Are Legal
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Background

Medicinal Marijuana in the United States is becoming a widely used drug to treat chronic illnesses in the twenty-three states it has been legalized, and there is a substantial turn in the controversial debate for the use of marijuana for medical reasons. Today the benefits of medical marijuana have demonstrated to positively serve the medical community, and a growing group of top medical professionals including the U.S. Surgeon Generals office now in favor of reforming marijuana laws for medical purposes.

Product Overview

APEX-10 is a powerful one-of-a-kind organic peat extract made from 10,000 year old active and complex naturally occurring materials. Its revolutionary formula creates the ultimate product for crop, plant & soil health which has been proven to: Boost fertilizer & water efficiency, Increase crop/plant turgidity, Enhance soil nutrient retention & make nutrients more available to the crop/plant, Dramatically reduce potential of root loss under stressful conditions, and Improve overall crop/plant performance.

Project Objective

Evaluations around the world with APEX-10 have shown to promote vegetative and reproductive plant growth. The objective of this evaluation was to determine whether APEX-10 would have that same effect on medical marijuana that is grown hydroponically for medical benefits.

Material & Methods

Two cuttings from a selected host plant were dipped in a rooting solution for 5-minutes then each placed in a 3½" net medium of rock wool. Both plants were then placed in the same container, were a potassium based (3-2-6) liquid fertilizer with a combination of Norwegian sea kelp and earthworm castings, was blended with well water, with a pH maintained between 5.8 to 5.9, and water temperature between 72°f and 77°f.

The solution was circulated through the medium while air was pumped to an air stone in the base of the container introducing oxygen to the water. For the following 6-weeks, until the root system had grown between 8" to 10", the water and fertilizer were changed every 2-weeks, and mediums were flushed to remove any excess salt build up.

At the end of week-6, both plants were transferred

to individual 5-gallon containers with each of the containers equipped with hydroponic growing stones, with air pumped through air stones at the bottom of each container introducing oxygen to the water. Fertilizer was now changed to a fast acting (2-8-4) phosphorus based solution, water pH again maintained between 5.8 to 5.9, and water temperature maintained between 72°f and 77°f. For the proceeding 7-weeks fertilizer was changed weekly, with mediums flushed to remove any excess salt build up.

In week-6, with both plants now transferred to individual 5-gallon pails, 1-teaspoon of APEX-10 was added to the test plant and remained until fertilizer was changed and medium flushed at the end of week-6. During week-9, a ½-teaspoon of APEX-10 was added to the test plant and remained until fertilizer was changed and medium flushed at the end of week-9.

During the first 6-weeks while plants were in the vegetative stage, they received 18-hours of light daily. Once reaching the reproductive stage, plants then received 12-hours of light daily and both plants were placed in growing chambers where fresh air is brought in and exhausted from the outside.

Discussion

Normally during the reproductive stage, plants remain in the growing chambers (see weeks 6 through 8). By the end of week-9 due to the excessive growth by APEX-10, the test plant exceeded the growing chamber height. So both plants remained in the same growing environment, they were removed from the growing chamber for the remainder of the growing cycle.

Conclusion

Based on the information presented, it is evident APEX-10 had substantially impacted in a positive manner both the plants growth cycle and harvest. Further testing should be conducted to evaluate the impact APEX-10 may have on the harvested quality, and the benefit that may serve the medical marijuana industry.

Plants in Growing Chambers During Week-6 through the end of Week-8



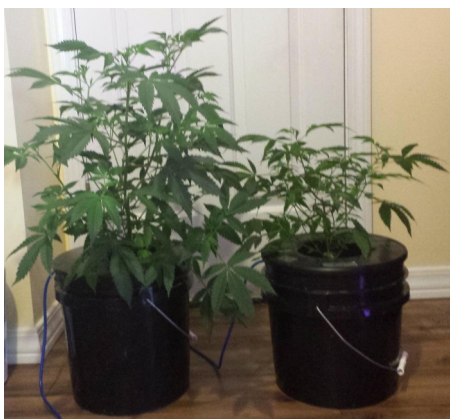
Week-6
APEX-10 (left) / Control (right)



Week-7
APEX-10 (left) / Control (right)



Week-8
APEX-10 (left) / Control OPTB



Week-9, Out of Growing Chamber
APEX-10 (left) / Control (right)



Week-10
APEX-10 (left) / Control (right)



Week-12
APEX-10 (left) / Control (right)



Harvested Material

APEX-10(left) / Control (right)

