CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)
Jada Smith

Project Number
J1926

Project Title
Hydroponic vs. Soil

Abstract

Objectives/Goals
Design a hydroponic system. Record differences in growth (height, weight leaf area and color) between the hydroponic system and the soil grown plants.

Methods/Materials
Hydroponic system made from aquarium and various other parts, fertilizer, soil, grow light, digital scale, photoshop. Record and compare height, weight, leaf area, and color.

Results
I grew radish plants two different ways to compare their health based on, height, weight, leaf area, and color. There were three trials for each procedure of growing radishes to ensure accurate results. At the end of three weeks, the soil grown radishes measured to be healthier in every way by my standards.

Conclusions/Discussion
The purpose of my project was to determine if hydroponics produced healthier plants than soil grown plants. Although my experiment implies that soil is the better choice, this is not necessarily the case. My project shows that hydroponics can be complicated and needs more expertise to be done correctly. Because my experiment did not go as planned, I can come up with ideas on how to revise and redo this project .

Summary Statement
My hypothesis that hydroponically grown radishes will be healthier based on height, weight, leaf area, and color, was not supported by my experiment.

Help Received
I was helped with the design and construction of my hydroponic system by my dad. Everything else, from experiment to observations, was done by myself.