

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)
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Project Number

J1909

Project Title

Give Soil Some Oil?

Abstract

Objectives/Goals

This project was designed to find out if adding vegetable oil to soil will preserve moisture and thereby allow the plant to grow better. It was expected that a layer of vegetable oil would enable the plant to grow well.

Methods/Materials

This experiment was performed outdoors using twenty Primrose plants, water, and vegetable oil. Ten of the Primrose plants were watered with one cup of water each week, and the other ten plants were watered with both one cup of water and 2.5 mL of vegetable oil each week for three consecutive weeks.

Results

Based on the data collected, the plants that were watered with vegetable oil grew better with an average growth of 4.57 centimeters. On the other hand, the plants that were watered with water only showed an average growth of 0.85 centimeters. Vegetable oil helps increase plant growth by preserving the moisture in soil and by supplying the plant with certain nutrients. Care should be taken to add only a small quantity of oil.

Conclusions/Discussion

The hypothesis that plants that will grow better if vegetable oil is added in small quantities was strongly supported by the results. If this experiment was to be repeated, different types of plants, oils, and soils would be tested. This project is relevant to the present-day shortage of water in California.

Summary Statement

This project was experimented to determine whether vegetable oil helps plants grow better and taller.

Help Received

Father helped buy materials;