CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY

Name(s)
Emma K. Lay

Project Number
J1721

Project Title
The Effect of Colored Light on the Growth of Italian Bush Beans

Abstract

Objectives/Goals
The objective of this investigation was to learn if colored light effects the growth of Italian Bush Beans. The operational hypothesis was that if Italian Bush Bean seeds are exposed to different colored light it will effect their growth.

Methods/Materials
Materials: ruler, Italian Bush Bean seeds, potting soil, paper, pen/pencil, seeds pot(8x6 pack), 4 aluminum foil baking trays, red, blue, and clear cellophane, stapler, aluminum foil, camera, water, watering jug, measuring cup. Method: 48 beans were planted in a 6x8 packs of seeds pots. Each 6 pack was covered with a 5 sided cover of either red, blue, clear cellophane, or aluminum foil. They were placed in a sunny, warm area and left to grow for 15 days.

Results
The results of data collected through observations showed that clear light helped the Italian Bush Beans grow the best. The average height of Italian Bush Bean seeds after 15 days under clear light was 40mm. This was followed by an average of 39mm for blue light. Red light had an average of 34mm. The control with no light had an average of 19mm.

Conclusions/Discussion
The results collected in this study did support the hypothesis that if Italian Bush Bean seeds are exposed to different colored light then it will effect their growth. The beans did not grow as well under red and blue light as they did under clear light.

Summary Statement
My project was about looking at the effect of colored light on the growth of Italian Bush Beans.

Help Received
My Mother and Father helped me make cellophane "tent" covers, took some photos, proofread my work, and helped with board layout.