CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)

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Project Number

S1807

Project Title

Transforming Plants

Abstract

Objectives/Goals

This investigation assess the effect of magnetic fields on a model organism: garden cress (lepidium sativum).

Methods/Materials

Eight samples of garden cress seeds were grown in hydrogel-filled test tubes. Test tubes were wrapped with copper enameled wire and attached to either an 8.5 W or 18 W power supply, or no power supply as a control group.

Results

The plants with no magnetic field grew the least, the plants with low radiation grew the 2nd least, and the plants with full radiation grew the most. The results also exhibited that plants placed under a stronger magnetic field had a warmer soil temperature.

Conclusions/Discussion

It was concluded from the results that the cause of the increased growth in plants placed under a stronger magnetic field could have been from either heat coming off the coil, or from a stronger magnetic field. If the latter is true, an effective way to increase specific types of plant's growth was brought about

Summary Statement

The project was to test the affect of magnetic fields on the growth of plants.

Help Received

Our biology teacher Mr. Krynen provided further explanation of plant growth. Our physics teacher Mr. Tom helped us to understand to properties of magnetic fields and its effect on plants.