

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

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Project Number

J1097

Project Title

The Efficiency of Eco-Friendly Insulation: Smart House Science

Abstract

Objectives/Goals

The purpose of our experiment was to evaluate different types of Eco-friendly plant insulators in a home setting. We expect the Armeria plant to be the most efficient insulator because it is a close knit, and drought tolerant plant.

Methods/Materials

We made a total of four houses, one being our control. The other three had different types of plant species on the roofs. Our tests were limited to temperature regulation. We tested in a controlled environment, and used thermal couple wire to measure temperature.

Results

Our hypothesis was correct, Armeria was the most efficient plant. It was not the lowest in temperature, but it was the most stable. It had a consistent pattern throughout the experiment.

Conclusions/Discussion

We found that using an Eco-friendly insulter not only gives back to the environment, but is a useful tool in regulating temperature in the home.

Summary Statement

Our project is about finding the most effecient, eco-friendly plant insulator to use in the future building of homes.

Help Received

Father helped in supervising the building of house