

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

Alicia M.J. Sadowski

Project Number

J2031

Project Title

Going Green with Greywater

Abstract

Objectives/Goals

How do you keep a green lawn, save almost half of your water bill and conserve water? The answer is to use greywater, any used water around the house (except toilet water). In my experiment, I explored the question "Can plants thrive on greywater?" My hypothesis was that the plants watered with tap water would thrive while the plants watered with greywater would just barely survive.

Methods/Materials

I planted three different types of plants--marigolds, beans and foxgloves. I watered each kind of plant with three different types of water--Tide greywater, Ecover (eco-friendly) greywater and tap water. Over a period of five weeks, I studied how well each plant grew based on the type of water that was used to water them. In my experiment, the experimental variable is the type of water used to water the plants. The dependent variables are the number of days for seeds to sprout, plant height, and overall condition of the plants.

Results

Based on plant growth and overall condition of the plants, tap water marigold, eco-friendly bean, and tap water foxglove and eco-friendly foxglove did the best for each type of plant.

Conclusions/Discussion

My hypothesis was not correct because Tide greywater and tap water had the same total number of sprouts for all plants, with eco-friendly greywater only a little behind. The growth of the plants watered with greywater did as well as or better than the growth of those plants watered with tap water. My experiment can have a big impact on the environment and how people should conserve water in the future because I have proved that you can use greywater to water plants.

Summary Statement

My project is about whether you can use greywater to water household plants.

Help Received

Mother and father helped assemble display board.