CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY

Name(s)
Mary M. Karcher

Project Number
J1626

Project Title
The Effect of Sugar on Bean Plant Growth

Abstract

Objectives/Goals
My project was to determine if bean plants grew stronger and healthier by the addition of the right amount of sugar to their watering. I believe that plants that receive 50 grams of sugar per liter of water would help bean plants grow to be stronger, healthier and larger because they would get energy from the sugar.

Methods/Materials
36 bean plants were grown in potting soil. The same amount of soil was used in each pot and it had no added nutrients. The plants were grown under 24 hour light, for the same length of time. They were watered everyday with 22.18 milliliters of water. The amount of sugar in the water was either: no sugar, (control), 25 grams of sugar per liter of water, 50 grams of sugar per liter of water or 75 grams of sugar per liter of water. The plants grew for 28 days. Each plant was removed gently from the pot, rinsed in water, and measured. The roots and the plant itself were measured separately.

Results
The plants with watered with 50 grams of sugar per liter of water were the strongest, healthiest and the largest. This was determined by measurement and visual inspection.

Conclusions/Discussion
The plants with watered with 50 grams of sugar per liter of water were the strongest, healthiest and the largest. This was determined by measurement and visual inspection.

Summary Statement
My project determined whether sugar effected bean plant growth.

Help Received
Mother helped type and used the X-Acto knife.