CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY

Name(s)
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Project Number
J1614

Project Title
Is Lautuca sativa, Used as a Bioassay Medium, Affected by Different Concentrations of NaCl?

Abstract

Objectives/Goals
The aim of the project was to determine how different concentrations of saline solution affect the growth of buttercrunch lettuce (Latucia sativa) seeds.

Methods/Materials
Four petri dishes for each of the six concentrations were set up and five seeds were placed in each dish. Each seed and dish were labled and after a growth period of five days, during which the seeds were left in darkness, the length of each sprout was measured.

Results
An increase in the concentration of the saline solution yielded a decrease in the average sprout length.

Conclusions/Discussion
In conclusion, saline solutions affect buttercrunch lettuce seeds immensely. When there is a higher concentration of salt, the lettuce does not grow as well. This is a concern for coastal agriculture, such as that in the Salinas Valley, which is now subject to much salt water intrusion.

Summary Statement
The project's aim was to determine the effects of saline solutions on Latucia sativa seeds, in order to determine effects of seawater intrusion in the Salinas Valley.

Help Received
The "Science Buddies" program in Monterey County mentored the project