

CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

Shivam D. Patel

Project Number

S2210

Project Title

The Effect of Algae Species on the Growth of Brine Shrimp

Abstract

Objectives/Goals

The objective of this project was to to find out that which algae species has the most affect on the growth of brine shrimp.

Methods/Materials

In this experiment, brine shrimp were hatched and raised into their adulthood. Then they were fed three different species of algae over a period of fourteen days. There were three trials for every species of algae. The fish bowls in which the brine shrimp were kept were cleaned every 2-3 days. There was a major problem while I was conducting this experiment. The scale that I was using to measure the mass of the brine shrimp was not properly calibrated, so I had to redo my experiment. Because of this problem, I could not collect enough data. Instead of collecting the data over a period of fourteen days, I could only collect data for six days.

Conclusions/Discussion

My hypothesis was "If the species of algae affects the growth of brine shrimp, then the softer and single celled algae will increase the growth rate of brine shrimp." According to my results, my hypothesis was right. Dunaliella (Green Algae) was the species of algae that was mostly consumed by the brine shrimp. Cyclotella (Diatoms) was the second most consumed algae, and spirulina (Cyanobacteria) was the third most consumed algae by the brine shrimp. A problem occurred while I was conducting my experiment. The scale that I was using to do my experiment was not calibrated. So since I had to redo my experiment, I did not have time to collect enough data. If I were to redo this experiment I would then have to find a way to get rid of the extra water that I was adding to the scale with the brine shrimp.

Summary Statement

This project is about discovering which species of algae has the most affect on the growth of brine shrimp.

Help Received

Mr. Young helped me out by providing me with the algae species that I needed. Mr. Sanders and Mr. Dowling helped me with some of the research.