CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY

Name(s)
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Project Number
J1317

Project Title
Fungus Among Us

Abstract

Objectives/Goals
ABSTRACT

My project, Fungus Among Us, deals with a unique kind of fungus, Arthrobotrys conoides. In this project I also used Rhabditis nematodes. I wanted to see what the preferential feeding temperature for Arthrobotrys conoides to eat the Rhabditis nematodes.

In my project, I had a Petri dish of A.conoides and a tube culture of Rhabditis. I made 20 agar dishes using cornmeal agar. With a scalpel I inverted a cubic centimeter piece of the fungus (the fungus was still with the agar) onto the new agar dish. I then let the fungus grow for about three days in the new dish. Then I inoculated the fungus with Rhabditis nematodes. I divided my dishes, four per each temperature. After finishing my dishes, I put them in five different places with five different temperatures. I used two incubators, on refrigerator and a classroom. I used five different temperatures, 100C, 150C, 170C, 200C, and 250C. Soon after pitting the dishes away, I observed each dish under a microscope. I divided them into four quadrants. I also looked at each dish from four different angles. Then I recorded how many nematodes I found alive and how many cuticles I found.

My hypothesis was that 250C was the temperature in which more nematodes would be consumes. I thought that because if you convert all the temperature that I used, they are 500F and above. 250C to me was closest to an outside temperature. I thought that since most fungus such as mushrooms, grow outside, then maybe the fungus would be more active and grow more thus leading to more nematodes being consumed.

After about 80 tests, my hypothesis was correct. 250C was the temperature in which the most nematodes were consumed. After 250C, came 170C, 150C then 200C. I was surprised that 200C had the least amount of nematodes because it was the second highest temperature.

Summary Statement
I wanted to see what the preferential feeding temperature was for Arthrobotrys conoides.

Help Received
Mr. Brent Susman