CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)
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Project Number
J2209

Project Title
Glow-in-the-Dark Silk Production through the Diet Manipulation of Bombyx mori

Abstract

Objectives/Goals
My goal is to produce glow-in-the-dark silk by manipulating the diet of Bombyx mori.

Methods/Materials
Four separate batches or eggs were ordered. The first two never hatched due to the temperature. The third and fourth batches of eggs hatched successfully in a specially-designed incubator using a cardboard box, 35 watt bulb, heat lamp, glass, and thermometer that blocked light and maintained a temperature of 75-80 degrees Fahrenheit. The Bombyx mori were fed silkworm mulberry chow. Experimental glow-in-the-dark food was fed to experimental Bombyx mori and observed. The experiment was repeated numerous times and is still ongoing.

Results
Glow-in-the-dark silk can be produced through feeding Bombyx mori an original recipe of glow-in-the-dark food.

Conclusions/Discussion
The glow-in-the-dark powder gradually harms Bombyx mori, but still produces glow-in-the-dark silk. I have ongoing research varying the recipe and feeding schedule to have healthier Bombyx mori that will produce more glow-in-the-dark silk.

Summary Statement
Glow-in-the-dark silk can be produced through feeding Bombyx mori glow-in-the-dark food.

Help Received
My father cut the cardboard for the incubator and typed out the report I wrote