

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

Charlie J. Hughes

Project Number

J1810

Project Title

Discovering a Way to Repel Mosquitoes by Using a Mixture of Paint and Mosquito Repellent

Abstract

Objectives/Goals The objective of my project is to discover if different amounts of coats of a mixture of mosquito repellent and paint repel different amounts of mosquitoes. I would like to use my results to repel mosquitoes from the standing water in horses# water troughs.

Methods/Materials

To test my experiment, I constructed the Mosquito Containment Apparatus. This was a larger rectangular prism with a smaller rectangular prism attached on one side. I also constructed 16 dowel rods. I changed my variables for these rods by using different amounts of coats of a mixture of mosquito repellent and paint. I then inserted one group of rods (4 of the same variable) into the smaller rectangular prism. With the 250 mosquitoes in the larger prism, I then counted the mosquitoes that flew into the smaller prism and labeled them as non-repelled.

Results

The results of my experiment show that using three layers of this mixture is most effective, and one and five layers were both effective, but not as accurate as the three layers. The three layer rods had an average of 11 mosquitoes non-repelled, and both one layer and five layers had an average of about 13 mosquitoes. All of my rods with the mosquito repellent in them repelled more than my control, which was regular paint and had an average of about 17 mosquitoes.

Conclusions/Discussion

Finishing my experiment, I concluded that when painting a mixture of mosquito repellent and paint to repel mosquitoes it is most effective in three coats.

Summary Statement

Finishing my experiment, I concluded that when painting a mixture of mosquito repellent and paint to repel mosquitoes it is most effective in three coats.

Help Received

Rory McAbee provided 250 live audlt mosquitoes