

CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s)

Andy R. Falconer

Project Number

S2405

Project Title

Effective Barrier Materials for the Brown Garden Snail (Helix aspersa)

Abstract

Objectives/Goals

The objective of the project was to determine the effectiveness of various household and commercial materials to deter and repel the Brown Garden Snail (Helix aspersa).

Methods/Materials

The eight materials tested were: baking soda, salt, Borax, copper tape, egg shells, wood ashes, sand paper, and a control. 12x12 inch zones were surrounded with each treatment. Ten random snails were placed in each treatment zone. The number of snails in each zone was recorded at 1, 2 and 10 hour intervals. Each treatment was replicated three times. Each replicate being done on three different nights. Counts were done at night because this is when snails are the most active. Data was then converted to average percent containment.

Results

Out of the eight materials tested Borax, salt and wood ashes were the most effective at deterring the Brown Garden Snail. Copper tape and baking soda were somewhat effective. Egg shells and sand paper were not better than the control treatment.

Conclusions/Discussion

Three treatments, Borax, ashes and salt, showed excellent containment properties. These materials are cheap and easy to get. They have potential to be important pest control products for a pest that causes millions of dollars in damage to California agriculture. Future research should test other materials such as diatomaceous earth, spices and sawdust.

Summary Statement

This project was to determine what materials act as effective barriers and deterrents to the Brown Garden Snail.

Help Received

Father helped gather snails. Mother helped glue pictures to poster