CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY

Name(s)

Daniel Kim; Micah Mekhitarian

Project Number

J2310

Project Title

Testing the Sweet Tooth of an Ant

Abstract

Objectives/Goals

The objective is to find the ants' preference on sugar by testing two different species of ants with various types of sweeteners.

Methods/Materials

Two tanks for Harvester and Garden ants, 20 Harvester ants, 20 Garden ants, timer set to 10 minutes, and 5 types of sweeteners that can easily be obtained from coffee shops (Equal, Sweet N' Low, Splenda, Sugar in the Raw, and honey). Observed and recorded the number of ants that took interest in the packets in a space of 10 minutes. Repeated for 12 trials.

Results

Both species of ants took more interest in the sugars that generated more smell. These addicting sugars were Equal and Sweet N# Low. Many of the ants unintentionally died due to the high amount of chemicals in the artificial sugar packets.

Conclusions/Discussion

The results of our experiment concluded that both species of ants share mutual interest for the sweeteners. Equal and Sweet N' Low were the favorite, both gave aromatic scent unlike the other choices. These two were toxic as well, killing many of the ants after they consumed these chemicals. Natural sweeteners such as Sugar in the Raw and honey gave out little smell, and received few visitors.

Summary Statement

Our experiment was on testing ants' preference on various types of sugar, including artificial and natural.

Help Received

We would like to thank Ms. Hoffman, both of our parents, and Daniel's brother for assisting and advising us on our project. We couldn't have done it without them.