

CALIFORNIA STATE SCIENCE FAIR 2002 PROJECT SUMMARY

Name(s)

Trevor H. Scheck

Project Number

J1135

Project Title

Safer Eating Environments for People Who Have Peanut Allergy

Abstract

Objectives/Goals

Probably the most common and most dangerous food allergy is Peanut Allergy. My excperiment was to find which counter surfaes are the most resistant to peanut oil and which cleaning methods best remove peanut oil.

Methods/Materials

I obtained Formica and ceramic tile squares to test on. I cleaned both groups and tested for the protein quantity, then contaminated the surfaces with peanut butter. I then tested for protein again and cleaned with several cleaning methods. Afterwards, I tested for protein and compared the results with the other tests.

Results

The data show that Formica had a higher resistance to peanut oil penatration, and that powdered chlorine bleach was better at cleaning off the peanut oil residue.

Conclusions/Discussion

I believe powered chlorine bleach was the best at removing peanut residue because it had the highest dosage of cleanser per area. Wiping was not effective because it did not chemically remove the residue.

Summary Statement

The search for a surface that resists peanut protein penetration most effectively and a cleaning method to clean the surface effectively.

Help Received

Father helped obtain supplies.