

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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Project Number

S1403

Project Title

The Effect of Airborne Pesticide Pollution on Student Attendance in Salinas Elementary Schools

Objectives/Goals

Abstract

The purpose of my project was to see if there was any correlation

between pesticide use in farm fields and absenteeism in six Salinas elementary schools located within a 1.5 mile radius of the fields during the 2002-2003 school year. If it can be proven that pesticide use decreases school attendance, this would be a significant finding and further investigation would be strongly advised.

Methods/Materials

Specific pesticides, agricultural sites, and schools were selected. Pesticide data and crop information were obtained from the Monterey County Agricultural Commissioner's office and the California Department of Pesticide Regulation's Pesticide Use Reporting (PUR) database. Attendance information for the six schools was obtained from the Salinas City Elementary School District. Data analysis, calculations, and comparisons between the data were then made.

Results

From these results, it is inconclusive whether airborne pesticide pollution from methyl bromide and chloropicrin is or is not significant enough to affect the attendance of elementary school students.

Conclusions/Discussion

The data obtained from the Salinas City Elementary School District were limited in nature and only available in monthly form. Had the data been more detailed, specifics concerning why the students were absent could be helpful. Another element of the project that would contribute to a more accurate assessment would be if the attendance figures from the district were in weekly or daily form rather than in monthly form.

Summary Statement

This project investigates the possibility of a correlation between pesticide use (methyl bromide and choloropicrin) in farm fields and the rate of student absenteeism in six elementary schools in Salinas, which is surrounded by fields.

Help Received

A scientist provided access to the California Department of Pesticide Regulation's Pesticide Use Reporting (PUR) database. A representative from the Salinas City Elementary School District was also very helpful in aiding me in the very difficult job of getting the necessary information.