

CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

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Project Number

J1111

Project Title

Treated Wood Is No Good

Abstract

Objectives/Goals

Our objective was to see if arsenic was leaching out of chromium copper arsenic-treated wood and contaminating the dirt around it.

Methods/Materials

Our research showed us that arsenic is very toxic and harmful to humans and other animals. The research also said that arsenic doesn't go away. We went to several different sites where there was treated wood. Using an arsenic test kit, we tested samples of dirt from around the treated wood. We measured and tested the soil at different distances from each piece of treated wood, and we tested several different ages of wood.

Results

We found arsenic in different amounts in the dirt samples from around the treated wood. The dirt that was closest to the treated wood had the most arsenic. We also found that the dirt around the oldest wood had the highest levels of arsenic.

Conclusions/Discussion

We found that our hypothesis was correct: arsenic was leaching out of the treated wood and there was more arsenic in the dirt that was closer to the wood. The safety standard for arsenic in drinking water has been determined to be 10 parts per billion. We found as much as 1500 parts per billion in the soil we tested. Even at 10 centimeters away from the treated wood, the arsenic level far exceeded the 10 ppb standard for safe drinking

Treated wood is found in playgrounds, in schools, and even in homes. Arsenic is a big, everyday danger in our world. We hope that this project can convince people to not use treated wood.

Summary Statement

Our project is about testing soil for arsenic near chromium copper arsenic pressure-treated wood in order to see if the arsenic leaches out into the soil.

Help Received

Our teacher, Mr. Woods, helped us choose our topic and showed us how to use the arsenic testing kit. He also advised us about our procedure, explained what an abstract was, and helped us find samples of treated wood. My mother helped us edit our final drafts.