



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Madison L. Hunter	Project Number J0917
Project Title Spray Patterns of Water and Oil Based Substances to Simulate Pesticide Movement in Still and Windy Environments	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective is to determine the drift of two types of aerosol sprays, to model a pesticide, under different conditions.</p> <p>Methods/Materials I used oil and water-based substances to simulate different pesticides with two commonly used spray bottle types available. I did a total of 80 trials, 40 for each substance.</p> <p>Results The oil based spray consistently drifted farther than the water-based spray. Both substances tended to drift farther when disbursed from spray container number one versus when disbursed from spray container number two. Also, the higher the altitude that I released the substances from, the farther the drift.</p> <p>Conclusions/Discussion After reviewing the data, I found that the particles were affected by aerosol movement. Aerosol movement occurs when particles are suspended in the air, or fall to the surface due to sedimentation. The suspended particles showed more drift. My experiment suggests that the higher the altitude that you release a substance from, the farther the drift from the main target.</p>	
Summary Statement My project relates to the spray patterns of water and oil based substances to simulate pesticide movement in still and windy environments.	
Help Received Mother drove me to Office Depot to buy poster board, as well as cut out letters for title.	