



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Philip S. Melkonian	Project Number 22312
Project Title Effects of Varying Soil Temperatures on Pesticide Toxicity	
Abstract Objectives/Goals My objective is to determine if different soil temperatures have an effect on the effectiveness of pesticide on insects. My goal is to keep an accurate record of my results and be able to compare this information to further help others with this investigation. Methods/Materials I am using aquariums, water heaters, thermometers, plastic cups, soil, Lorban pesticide, and crickets. I am using different soil temperatures with a pesticide to see what effect it has on how fast it can kill an insect. I will be keeping a record of how long the pesticide takes to kill the insect in the different soil temperatures. Results I discovered that the colder the temperature was the longer the pesticide took to kill the insect. From 85 degrees to 50 degrees there was a 9 hour difference in the time the pesticide took to kill the insect. Conclusions/Discussion My hypothesis stated that the warmer the temperature was, the faster the pesticide would kill the insect. My hypothesis was correct. From my science project I've learned that pesticides are more effective in warmer temperatures than colder temperatures. This can be helpful to farmers to know when is the most effective time to use pesticide. In future I may want to use a few other different pesticides for my investigation.	
Summary Statement Comparing if pesticides are more effective in warm or cold temperatures on insects.	
Help Received My science teacher and the district science coordinator gave me encouragement and support.	