



# CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

<b>Name(s)</b> <b>Karley J.K. Lassley</b>	<b>Project Number</b>  28246
<b>Project Title</b> <b>Which Natural Substance Will Work as a Pesticide on Mosquito Larvae?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my science project is to determine if natural substances will kill mosquito larvae. The reason I am doing this investigation is to determine if it is really necessary to use pesticides made with harmful chemicals. Nobody enjoys being bit by mosquitos, but is it really safe for our environment to use so many chemicals? <b>Methods/Materials</b> For my control test I will place 15 mosquito larvae in a container filled with water. For my next test group I will place 15 mosquito larvae in a container with a mixture of 5% test substance to 95% water. For my last test group I will place 15 mosquito larvae in a container with a mixture of 15% test substance and 85% water. I will repeat these steps with each of my test substances; citric acid, apple cider vinegar, and cinnamon. Each test will consist of 10 trials. I will observe and record how long it takes for the mosquito larvae to die. <b>Results</b> The solution of 15% cinnamon to 85% water was the most effective for killing mosquito larvae, taking only 6 hrs. 5% cinnamon to 95% water was still effective taking 24 hrs to kill all the larvae. The solution of 15% citric acid to 85% water took 42 hrs. to kill all the larvae. The 5% citric acid to 95% water solution was ineffective. The 15% vinegar to 85% water solution took 18 hrs to kill all the larvae. the 5% vinegar to 95% water solution was ineffective. <b>Conclusions/Discussion</b> After completing my science project I found that my hypotheses were partially correct. My hypotheses stated that citric acid, apple cider vinegar, and cinnamon would be an effective way to kill mosquito larvae. While all the substances did eventually kill the mosquito larvae, the cinnamon solutions were the most effective in the shortest amount of time.	
<b>Summary Statement</b> This project is to determine if it is possible to control the mosquito population by killing the larvae with natural substances.	
<b>Help Received</b> Rory D. McCabe, M.S. provided mosquito larvae and mosquito information. Dr. Fred LoGalbo provided cinnamon information. Carl Gong helped with experimental flow chart. My mom helped to type my written work and photograph the experiment.	