



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Valerie Vang	Project Number J1532
Project Title Determining Which Natural Substances Would Work As a Pesticide on Mosquito Larvae	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to find out if natural substances could be used as a pesticide. Something that would not harm the environment or people, but still be used to control the spread of mosquitos and West Nile Virus.</p> <p>Methods/Materials I used different fruit peels that contained citric acid to use as a pesticide. I used Grapefruit, oranges, and lemons as my variables. I created a soultion using the peels of the fruit. I shredded the peels on a food shredder. Measured out 1/4 of a cup for each different variable. I then filled 4 containers with 1 and 1/2 cups of water. I placed 25 mosquito larvae into each container. After 30 minutes, I checked larvae to make sure they were alive. I then added the 1/4 cup of shredded peels. Solution was 1/4 cup of peels to 1 and 1/2 cups of water. 3 different containers with the variables and 1 container that was the control. The control contained no peels. Only water. I checked and recorded the death rate of the larvae.</p> <p>Results In the control container all mosquito larvae lived. Containers with natural substances- All larave died within 2 hrs. The Grapefruit had the quickest affect in killing the mosquito larve. The lemon had the slowest affect. (If you consider within 2 hours slow)</p> <p>Conclusions/Discussion I learned that we can use a natural pesticide to kill the mosquito larvae. Citric acid has a very harmful affect. This could be a safe alternative to pesticide. If you had small children, pets, or even adults, playing in the area. Or drinking the water, the peels would not be harful. Pesticide can be very harmful. The taste might not be good, but that beats the alternative of getting really sick. I feel this could be used in people's backyard, small ponds, etc.. This would help contain mosquito population and control spread of disease like West Nile Virus. This is a safe way of using a substance as an alternative to pesticide.</p>	
Summary Statement I used a safe natural substance as an alternative to pesticide, to help control mosquito population.	
Help Received Teahcer helped with scientific process, obtaining larvae. Mom helped put board together and supervised.	