



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> <b>Amanda K. Penicks</b>	<b>Project Number</b> <b>S1725</b>
<b>Project Title</b> <b>The Comparison of Common Household Products and Labeled Chemical Pesticides on Mosquito Control</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of my project is to compare easily accessible household products and registered pesticides to compare their efficacy as a pesticide for mosquitoes in a backyard situation. <b>Methods/Materials</b> Using four- 1/2 barrels; each one filled with 30 gallons of water remained undisturbed in order to allow mosquitoes to lay egg rafts. After all four larva instar stages and pupa were developed, household chemicals/products were added to three of four barrels but none was added to the control barrel. During this time the mosquito larvae, pupae, and adults were counted to see if the various household chemicals affected the breeding and development.  A second experiment was conducted using four- 1/2 barrels and the same procedures with different chemicals. This time registered pesticides were added to three of the barrels, and none to the control. <b>Results</b> Only two of the three household products were effective in eradicating the instar larva stages and pupa, the second household product required two treatments with the second day being doubled. The third household product was used for 6 days. Days 2-6 the product was dosage was double and larva and pupa remained alive. The registered mosquito pesticides killed the instar stages and pupa within 24-96 hours with one application. <b>Conclusions/Discussion</b> The use of household products/chemicals may be convenient but there is no certainty about the dosage and length of time required to eradicate the mosquito. One of the three household products was ineffective in killing the larva and pupa even after six consecutive treatments. The registered product only had to be used once and eradication occurred after 24-96 hours.	
<b>Summary Statement</b> The effectiveness of household chemicals and registered mosquito pesticides.	
<b>Help Received</b> Cynthia Ross- employee of Orange County Vector Control who administered the registered mosquito pesticides. Shannon Penicks- purchased supplies and equipment to conduct the experiment.	