



**CALIFORNIA STATE SCIENCE FAIR  
2016 PROJECT SUMMARY**

<b>Name(s)</b> <b>Laura E. Ellis</b>	<b>Project Number</b> <b>J2105</b>
<b>Project Title</b> <b>Copepod's Reaction to Pesticide</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective was to find out which pesticide effects the copepods the most and least. <b>Methods/Materials</b> Ten copepods were added into a petri dish with 50mL of water, using syringes. The appropriate amount of Ortho Insect Killer, Weed B Gon, or Animal B Gon was then added into the petri dish. For the first ten minutes, observations were recorded in a notebook every minute, then every other minute until 20 minutes. After 20 minutes passed, observations were recorded every five minutes. When recording the observations, the copepod deaths were recorded, and their activity levels were rated on a scale of one to five. <b>Results</b> The first pesticide, Ortho Insect Killer, killed the copepods within the first ten minutes. The second pesticide, Ortho Weed B Gon, killed the copepods within 45 minutes. The third and final pesticide, Ortho Animal B Gon did not kill the copepods. It can be determined that the least harmful pesticide was the animal repellent, not killing the copepods and keeping them at a normal activity level. The most harmful pesticide was the insecticide, which killed all of the copepods the fastest. <b>Conclusions/Discussion</b> The hypothesis was proved wrong, which means that copepods could have a change of adapting to certain amount any types of pesticide. The animal repellent used natural ingredients, which did not affect the copepods. The herbicide dazed the copepods for a minute, but then they would become active again. Chemicals like the ones in the Weed B Gon could be adaptable, meaning that not all of the results from these experiments could be classified as negative of positive. Pesticides from natural ingredients are better for the environment and waterways.	
<b>Summary Statement</b> It was dicovered that the Ortho Insect Killer exhibited the worse reaction , and the Animal B Gon exhibited the least reaction among the copepods.	
<b>Help Received</b> I designed, conducted, and analyzed the experiment by myslef. My dad supervised me while conducting the experiment. My mom helped me gather materials and Mrs. Gillum edited my notebook.	