



**CALIFORNIA STATE SCIENCE FAIR  
2003 PROJECT SUMMARY**

<b>Name(s)</b> Sarah E. Trumble	<b>Project Number</b> <b>S1427</b>
<b>Project Title</b> <b>It Doesn't Take a Rocket Scientist</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective was to determine what effect, if any, perchlorate would have on Humpback fly larvae. <b>Methods/Materials</b> Four petri dishes were filled with a food mixture containing water and diet flakes. Four others contained water, diet flakes, and 500 ug/g perchlorate. The last four contained water, diet flakes and 2000 ug/g perchlorate. Ten larvae were placed in each petri dish and observed. Size and date of pupation were recorded. <b>Results</b> The larvae exposed to 500 ug/g perchlorate grew larger than those in the control, but those exposed to 2000 ug/g were visibly stunted. Pupation, however, took longer for all the larvae exposed to perchlorate. <b>Conclusions/Discussion</b> This project showed that larvae exposed to perchlorate take longer to mature, but size will vary, depending on the amount of exposure. Humpback flies help to decompose plant material, especially lettuce. Lettuce fields in California have recently been contaminated by perchlorate thanks to irrigation water from the Colorado Aquaduct. This leads to the conclusion that Humpback fly populations will be adversely affected and unable to decompose the proper amount of plant material, tilting nature's balance. This experiment does not bode well for humans, either. Perchlorate has been found in taps all over California, and also affects human's growth and metabolism - especially unborn children.	
<b>Summary Statement</b> This project is about the effect of perchlorate on humpback fly larvae.	
<b>Help Received</b> Used lab equipment at UCR under supervision and with the assistance of Dr. John Trumble.	