



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Hermes G. Penuelas	Project Number S0612
Project Title Effect on Pond Life to the Exposure of Selected Algae Controllers in a Simulated Environment	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this study was to determine the effects of three selected chemicals on pond life, which are used to treat algae blooms in ponds. The best chemical was to be, the one which could eliminate the algae without harming any other organisms fundamental for the development of life in a fresh water pond.</p> <p>Methods/Materials Four tanks, in which plants and diverse organisms were introduced equally, simulated the natural environment. Tank A was treated with Clear Pond#. In tank B Accu-Clear# was introduced. Tank C was dozed with an algaecide called Algae Destroyer#. Tank D stayed as the control of the experiment. The tanks were dozed according to the directions of their respective chemicals. The plants were weighed every 15 days. Water Quality Tests were made every 10 days and respective observations of each tank were done as well.</p> <p>Results In tank A algae died and most of the plants and guppies survived. Flora and fauna increased in tank B and great bio-diversity of microorganisms was also found. In tank C the algae was eliminated, but so were most of the other plants. Dead fish was found at the end of the testing period due to an increment in the biochemical oxygen demand.</p> <p>Conclusions/Discussion According to the data and observations from each tank, the most successful chemical was Accu-Clear#, because it killed the algae without harming other organisms fundamental for the pond life. The worst chemical was AlgaeDestroyer#. Clear Pond# did not have a beneficial or a harmful effect on pond life.</p>	
Summary Statement The harmful effects that some algae controllers may have on your pond without even letting you know about them.	
Help Received Used lab equipment at Santa Ana High School. Stephen Clayton assisted along the testing period.	