



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Krystal M. Flores	Project Number J1006
Project Title Determining Which Lawn Fertilizer Is More Environmentally Harmful to Living Organisms, Organic or Inorganic	
Objectives/Goals I am determining how toxic fertilizers are to the environment. I am simulating run-off water that would travel into the streams and effect the aquatic environment by testing the toxic levels on daphnia.	
Abstract Methods/Materials I am using three different types of fertilizers. Organic fertilizer, liquid fertilizer, and granule fertilizer. I applied the fertilizers to 12in by 12in pieces of sod. I then simulated run off water from the sod, by running the fertilizer through the sod, and filters into cups. I then placed the daphnia into the different cups and checked the death rate of the aquatic organisms. Repeated process for ten trials. (controlled environment had no fertilizer) Daphnia was obtained from Boreal Science Supply company)	
Results The non-organic fertilizer kept the daphnia alive the longest of all the fertilizers tested. They lived an average of 4.9 days. The daphnia in the control group stayed alive for an average of 5.3 days. All the other fertilizers. All other fertilizers kept the daphnia alive only for a certain amount of minutes.	
Conclusions/Discussion I learned that not all organic fertilizers are best for the environment. My test showed that the non-organic fertilizer was less harmful to the aquatic environment than the organic fertilizer. Organic fertilizers broke down very quickly which may have been why it was more harmful to the daphnia.	
Summary Statement My project test the toxic levels of fertilizers and how that effected the aquatic animal daphnia.	
Help Received Mom helped obtain materials and put board together. Teacher went through scientific method an supervised	