



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Roy G. Ambrose, III	Project Number J2302
Project Title The Effects of Everyday Chemicals on Grass and Plants	
Abstract Objectives/Goals I decided to do this project because I noticed when my dad was putting out fertilizer it had different effects on the plants and grass. I noticed that the grass died in certain spots, in other spots it grew long and thick and some plants grew larger, I became curious why this happened so, I wanted to know if other household chemicals would have a negative effect on grass and plants. Methods/Materials In order to perform my test in a natural environment with different types of plant groups, I had to design a plant holder for my specimens. I needed a box that was 16" x 24". I also had to divide the box into different section for my controlled groups and I had to create separate section for the sod.The plant groups used in my experiment were mosses, liverworts, ferns, flowering plants and grasses. Results After my first week of testing I noticed in row 1, the oil mixture, two out of the three plants were showing changes. I noticed that the plants treated with grey water 4A, 4B, 4C, and, 6A-Control group showed the healthiest results at this time during testing.During the second week of testing group 1 the oil mixture again showed negative results. During the final week of testing group 1 the oil mixture plant 1A continued to show major color change and larger brown and black spots. Specimen 1C now had a large amount of yellow and brown grass blades. In the center of section 1C there was a large dirt spot were all the grass had died. Group 2 the car wash mixture plant 2A had collapsed. Group 3 the toothpaste mixture plant 3B also collapsed. Plant 4A the grey water remained the same the only noticeable effect was the dry flower petals, but leaves remained healthy. Plant 6A control group was healthy and strong. Conclusions/Discussion At this point based on the results of my experiment I must conclude that my hypothesis was partly wrong. At the beginning of the experiment I stated my hypothesis that #Chemicals would have a negative effect on plants and grass, but the plants would be more tolerant to the chemicals#. From my observation plant 2c-grass, 3c-grass and 4c-grass which were all treated with different chemicals showed no changes in color, texture and dryness. During my project I learned through observation that some forms of used water might be re-usable for outside uses.	
Summary Statement I am going to try to determine the direct effects that certain household chemicals such as toothpaste, paint, oil, grey water and carwash has on our natural environment such as plants and grass.	
Help Received Parents assisted with graph and safety supervision.	