



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) James I. Miller, III	Project Number S2013
Project Title Plantorade	
Abstract Objectives/Goals This project was done to see if plants grow better with regular tap water or if they like sugar and electrolytes and grow more when fed Gatorade. And also determine if the different formulas/flavors of Gatorade will effect the rate of growth. Methods/Materials First I needed to go to Green Thumb and get the organic soil, the six plastic pots, and the butter bean seeds. Then I went home that day and planted all six pots and watered them that night. Also I labeled each pot with a plant number and what they were being fed. Everyday I go in my mom's room and open the curtains and put 1/3 cup of Gatorade or water in it and let it sit for the day and soak up the sunshine. Then at night I go in the room and measure the plant in centimeters and record the data in my notebook. That's how I am doing my project and that's exactly the procedure that I have followed. Results Plants do not like Gatorade. The low calorie G2 Gatorade barely sprouted. The X-Factor and the Tiger Gatorade grew 6 inches. The watered plants grew 14 inches. Conclusions/Discussion Some parts of my hypothesis was right but some were wrong. In my hypothesis I guessed that the G2 plant would have the most growth but instead the G2 plant barely grew at all. I was right when I said that the X-Factor plant was going to be one of the tallest Gatorade plants. As with any experiment there are sources of error that were not accounted for before the experiment. One error that I have found was the different depths that I planted the seeds. I tried to plant them all the same amount of inches under the surface of the soil but after the first watering soil was displaced and seeds were probably moved around a little bit and pushed to different depths. I have learned that although water is a much better way to feed a plant, Gatorade will work but it won't grow as fast. I also learned that plants can grow even when strong acids are present. If in a few weeks there is a harvest of butterbeans then I will be able to see which plants came out with better beans and better quality of bean. If the Gatorade grows a better bean than it could possibly be used to grow produce in the future. I could take this experiment further by waiting for the beans to sprouts and seeing which bean looks and tasted the best.	
Summary Statement Will Butter beans grow when fed different types of Gatorade with electrolytes in it?	
Help Received Mom fed plants a few times	