



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

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Project Title The Effects of Increasing CO(2) Levels on Plant Growth	
Objectives/Goals To determine how various amounts of CO2 levels affect the rate of plant growth. Abstract Methods/Materials Materials: Wisconsin Fast Plants, distilled water, antacids, zip-lock tupperware, large zip-lock bags, lights, ruler, scale, potting mix, dropper, Styrofoam boxes, wicks, markers and paper towels. Method: To construct a stable environment to keep the plants in. Use styrofoam boxes to put plants in. Place 2 Wisconsin Fast Plant Seeds in each hole of the styrofoam box filled with potting mix. Then water the plants until soil is completely moist. Cut the tupperware top so it has a slit that a paper towel can fit through. In large zip-lock bag have the zip-lock tupperware filled with distilled water and have a paper towel submerged in the distilled water and draped over the lid of the tupperware. The plants in the styrofoam box will sit on the paper towel that will become completely wet from the distilled water. fill the bag with water at the bottom but not too much or the box will float. Have 4 different variables: Control (nothing added), 2 Antacids and 1 Antacid. Add the variable every 2 days and measure the plants length. Aside from measuring and re-administering the variables keep the bags closed and under the lamp. Results On average the plants that were given 2 antacids grew the least, 1 antacid grew the most, the control grew close to the amount that the 1 antacid did but slightly less. Conclusions/Discussion The results showed that too much CO2 sufficated the plants and stunted their growth. Too much of a good thing can sometimes be a bad thing. With the rising CO2 levels in the earths atmosphere, due to the use of fossil fuels, plants growth could be stunted. It is also possible that the lack of oxygen in the controlled environment prevented germination from occurring which could also hinder the plants growth. Overall too much CO2 throws off the equation of photosynthesis and stunts the plants growth.	
Summary Statement Testing how increasing CO2 levels impact the growth of plants.	
Help Received Used equipment and lab in Mr. Betzelberger's AP Biology class room.	