



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Michael R. Schiffer	Project Number J1723
Project Title Got Growth?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to determine how an increased level of carbon dioxide in the air effects the growth and development of agricultural crops. My belief was that an increased level of carbon dioxide would have a positive effect on plant growth and overall health.</p> <p>Methods/Materials My methodology consisted of planting seeds of various agricultural crops, dividing the plantings into two groups, exposing the one group of plants to carbon dioxide everyday and charting and documenting both groups progress. Materials: 2 pieces of plywood,2 portable greenhouses,1 roll of silver duct tape,4 trays lined with plastic bags,1 plastic box,2 humidguide/thermometers,40 planter pots,seed starter soilmix,crop seeds,spray bottle,scale,measuring cup, measuring teaspoon, 2 liter plastic bottle, 4 plastic bags, 1 roll saran wrap, vinegar,baking soda,water,labels),notebook,pencil,calculator,digital camera.</p> <p>Results My project provided me with evidence that I was incorrect in my hypothesis, I predicted that the carbon dioxide group would absorb this gas in the process of photosynthesis and grow taller, faster and healthier. This was not the case. My results were that the exposure to carbon dioxide actually harmed the agricultural crops.</p> <p>Conclusions/Discussion I understood at the start of my project that plants use carbon dioxide to make their food through photosynthesis. I didn't realize that too much of it could hinder the crops growth and healthfulness. I think the plants reached a point where the increased level of carbon dioxide was not a benefit but rather a hindrance. Just as plants consume carbon dioxide to grow, humans consume food to grow. However, if a person eats too much food, they can become sick and unhealthy much like the plants. As a result of this experiment, I have realized that if carbon dioxide levels increase over time, the world's crops might turn out the same way my experiment did. This would be a catastrophic event as it would significantly reduce the world's food sources.</p>	
Summary Statement My project examines the effects that carbon dioxide in the air has on the health of agricultural crops.	
Help Received None received	