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More CO₂ Means What For Plant Growth?

The purpose of this project was to determine how increased carbon dioxide affects the growth of corn plants. I hypothesized that if some of the plants were grown with increased carbon dioxide, then the plants with increased carbon dioxide would grow bigger and faster than the plants without. In this experiment, I had controlled plants without increased carbon dioxide for each plant with increased carbon dioxide. I increased carbon dioxide by creating a chemical reaction between vinegar and baking soda, and placed it under two liter bottles along with some of the plants. I recorded measurements and observations daily. A thermometer was also placed inside each soda bottle. The data showed that my hypothesis was partially correct and partially incorrect. In one case, the plant with increased carbon dioxide grew 2.2 cm more than its opposing controlled plant and grew faster. However, in the other two cases, the plants with increased CO₂ grew less and slower than their controls. The temperature results showed that almost every day, the plants with increased CO₂ had equal or greater temperatures than their controls. For example, one plant with increased CO₂ had an average of 3.4 Celsius degrees higher than its opposing control without increased CO₂. These findings led me to believe that increased CO₂ can definitely influence the growing conditions of plants and may affect their growth in different ways.