

The Effects of Elevated Carbon Dioxide and Heat on Major Agricultural Crops *Solanum tuberosum* and *Solanum lycopersicum*

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The effect of global climate change in respect to elevated carbon dioxide levels and temperature on major crops such as *Solanum tuberosum* (potatoes) and *Solanum lycopersicum* (tomatoes) has received little attention. In this project, we will examine the combined and independent effects of enhanced levels of carbon dioxide (CO₂) and temperature on plant growth, morphological characteristics, and chemical toxins. Although the quality of these plants are important with regard to food and industrial processes, the consequences of elevated future atmospheric carbon dioxide and temperature levels are still unclear. The ultimate goal of this study is to assess and determine the impact of these components on overall biodiversity, economic influence, and ecosystem services.

