CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)
Aylin G. Salahifar

Project Number
J1819

Project Title
The Detrimental Impact of Food Remnants on Plant Development

Abstract

Objectives/Goals
The objective of this study was to investigate the effects of feeding plants different types of processed food solutions.

Methods/Materials
Purchased Cyclamen flowers for 3 separate trials. Each trial consisted of 4 Cyclamen flowers. One received a sugar solution, the second one a potato chip solution, the third flower a chocolate mixture, and the last only tap water. Plant height data and other developmental factors were recorded over 3 trails and displayed in data notebooks and graphs.

Results
The sugar nourished plant responded the most adversely to its solution. The potato chip plant showed the second most amount of detrimental effects, while the chocolate plant showed the third most. The control plant on the other hand was the healthiest plant and significantly grew during the experiment. Results were obtained according to quantitative height data and senescence diagrams.

Conclusions/Discussion
In conclusion, my hypothesis was proven to be correct. Each junk food nourished plant displayed some malign effect. For example: The sucrose in the sugar solution delayed flowering time, and the potato chip solution dried the plant through the process of Osmosis. We can use this information to our benefit. In a real world application, if you are a farmer who is wishing to increase his yield in a shorter period of time, fertilizing your crops with sucrose supplements wouldn't be something in your interest. However, if you are a florist looking to delay a Chrysanthemum's bloom until Christmas, sucrose supplements might be a cheap way to preserve your plants until a desired time.

Summary Statement
I deduced that processed food solutions will cause detrimental effects on Cyclamen flowers, including delayed flowering times (e.g. sugar nourished plant), and withering through the process of Osmosis(e.g. chip nourished plant).

Help Received
My father and mother aided me in the design of my experiment, though I conducted all research and work alone. Mr. Lampard, my Synopsys mentor, guided me through analyzing my data and advised me to use a senescence diagram.