



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Catherine Diyakonov	Project Number J1906
Project Title Are Vitamins Plant Friendly?	
Objectives/Goals My goal was to determine if sweet pepper plants (capsicum annuum) would grow taller when they were be watered with Vitamin C solution, Vitamin D3 solution, or water.	
Abstract I labeled 5 sweet pepper plant cups with a "C" since I would be watering those 5 plants with Vitamin C solution. Then, I labeled 5 sweet pepper plant cups with a "D3" since I would be watering those 5 plants with Vitamin D3 solution. I left 5 sweet pepper plant cups unmarked since I would be watering those 5 plants with water and because this was my control group. In one measuring cup, I dissolved two tablets (500 mg each) of Vitamin C in 100 mL of water as much as possible. In a second measuring cup, I dissolved one tablet (1000 IU each) of Vitamin D3 in 200 mL of water as much as possible. In a third measuring cup, I filled up as much water as I wanted. Every other day, I repeated the previous three steps and watered the appropriate plants with 50 mL of each specific solution, along with measuring them. This experiment was conducted over the course of 15 days.	
Methods/Materials I labeled 5 sweet pepper plant cups with a "C" since I would be watering those 5 plants with Vitamin C solution. Then, I labeled 5 sweet pepper plant cups with a "D3" since I would be watering those 5 plants with Vitamin D3 solution. I left 5 sweet pepper plant cups unmarked since I would be watering those 5 plants with water and because this was my control group. In one measuring cup, I dissolved two tablets (500 mg each) of Vitamin C in 100 mL of water as much as possible. In a second measuring cup, I dissolved one tablet (1000 IU each) of Vitamin D3 in 200 mL of water as much as possible. In a third measuring cup, I filled up as much water as I wanted. Every other day, I repeated the previous three steps and watered the appropriate plants with 50 mL of each specific solution, along with measuring them. This experiment was conducted over the course of 15 days.	
Results According to the average plant height data, the plants watered with Vitamin D3 solution outgrew the rest, growing on an average of 10.42 cm. The sweet pepper plants watered with water grew on an average of 8.16 cm while the plants watered with Vitamin C solution grew on an average of 7.76 cm.	
Conclusions/Discussion In conclusion, the sweet pepper plants watered with Vitamin D3 solution grew the tallest, followed by the plants watered with water, and then the ones watered with Vitamin C solution. The results of my science experiment can be applied greatly to those who develop and use fertilizers. If Vitamin D3 is incorporated into fertilizers and then put into the soil in which plants grow, the plants will grow quicker and require less water in the process.	
Summary Statement My science project tested if Vitamin D3 or Vitamin C benefited the growth of sweet pepper plants (capsicum annuum).	
Help Received My science fair coordinator, Mrs. Robin Norfleet, provided information about the science fair regulations.	