



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Xavier E. Guaracha</b>   | <b>Project Number</b><br><b>J1814</b> |
| <b>Project Title</b><br><b>Hydroponics vs. Soil</b>   |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b><br/>I wanted to test two types of growing methods. I used hydroponic systems and planting pots because they are commonly used.</p> <p><b>Methods/Materials</b><br/>Hydroponic system(raft), 2 gallons of distilled, Planting pots, Planting soil, 2 daylily bulbs, 2 sunflower seeds, 2 radish seeds.<br/>Plant 1 of every plant in each growing system. Add 1/2 of a gallon to the hydroponic system. Give the plants 1 cup of water each day. Measure for 21 days.</p> <p><b>Results</b><br/>The hydroponic plants grew overall taller than the soil plants. I found this out by adding the inches of one group of plants and compare the total height of the other growing group. the results were 7 inches compared to 6.1 inches.</p> <p><b>Conclusions/Discussion</b><br/>In my conclusion, I think that growing hydroponically is more successful. You can get taller plants. However, some plants may grow better in soil than water. Even though the overall height of the was higher than the soil plants height, the soil-grown radish grew taller than the hydroponically grown radish.</p> |                                       |
| <b>Summary Statement</b><br>To compare plants grown hydroponically to plants grown in soil.   |                                       |
| <b>Help Received</b><br>Dad helped make hydroponic system.  |                                       |