



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

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| Name(s) Nicolas S. Schroeder | Project Number 31087 |
| Project Title How Will Gibberellic Acid Affect Pea Plants? | |
| Objectives/Goals My goal for doing this project was to see if Gibberellic acid will effect the growth of pea plants and if so, by using what amount of the acid. I want to find out if higher concentrations of Gibberellic acid make bigger plants. Abstract Methods/Materials The method used in this experiment is first germinating the seeds by placing them between wet paper towels. Then, put them in a plastic bag and let the seeds sit for one week. After they began to sprout I planted them with potting soil in twenty-seven pots. I waited until they came up then I began watering them with Gibberellic acid (GA3) or water. I used a beaker and measured 0.720 liters of water, then put 1 scoop which is 0.080 grams of Gibberellic acid and that became 100 PPM (parts per million) of the mix. For Gibberellic acid that is 200 PPM, I took 0.720 liters of water adding 2 scoops of GA3. The controlled plants were just watered with water. I watered the plants with the plain water and GA3 concentrations every five days. Every 5 days, I recorded the measurements of each plant in my journal. I then added up all of the measurements in the three categories. I divide by nine because that is how many plants are in each section and that got me the height average for each group. I did this for 4 weeks. Results The 200 PPM plants grew a couple inches bigger then the 100 PPM. By using GA3 the plants grow a lot bigger then just by using water. The last measurement I did A=100 PPM the average height was 30.6 and B=200 PPM average was 30.7 and Control was 26.3. The more GA3 I used the bigger the plants grew. Conclusions/Discussion My conclusion is that GA3 does help the growth of plants. By seeing how hormones effect pea plants it expanded my knowledge on the subject because I now have a curiosity about how agriculture may use plant hormones. | |
| Summary Statement My project is about Gibberellic acid and how it effects the growth of pea plants. | |
| Help Received Dad helped drive, Dad and Mom helped with photography, Dad bought Gibberellic acid, Mom helped type application. | |