



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Darrick L. Gowens	Project Number S2008
Project Title Determining the Effectiveness of Different Types Wood Ash as a Fertilizer on the Germination and Growth Rate of a Radish	
Abstract Objectives/Goals The goal of the science project is to determine if different types of fire wood ash would help in the germination, growth and the production yield rate of a plant. Methods/Materials Have you ever planted a garden and wanted to produce fruits and vegetables at a faster rate? Many farmers spend countless dollars on fertilizers, hoping to accomplish this. I have found that wood ash produces a strong plant faster than the average store brought fertilizers. The 1/4-cup of citrus wood ash was mixed with 2 cups of soil to produce a quick germination rate, as well as a long thick taproot. I place the different types of woods through a wood chipper. Then the wood chips were burned, and the ash was then pace through a shifter to filter out any large debris. Two radish seeds were placed in each plant box and covered with a mixture of soil and ash. After the seeds were placed and covered, I watered each plant. Results Within 2.9 days covered by the citrus wood ash germinated. The plant was also thicker and taller then the control group. Conclusions/Discussion This project contributes to the agricultural industry because it is efficient in the way it produces results quicker, and is cost effective. My original objective was confirmed because the results did support my hypothesis.	
Summary Statement The effectiveness of different types of wood ash as a fertilizer on the germination and growth rate of a radish seed.	
Help Received I consulted Dr. John Constable at Fresno State University of Fresno Biology Department.	