



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

Name(s) Carol J. Cabrera	Project Number J1405
Project Title Can Garlic Prevent Crown Gall?	
Abstract Objectives/Goals The purpose of this project is to determine whether or not a garlic capsule will prevent or prolong cancer in tomato plants. Methods/Materials Broad-leafed plants are affected by agrobacterium tumefaciens (crown gall) so the plant selected was the tomato plant. A tree already infected with crown gall was the source of the bacteria. The scientist transplanted the tomato plants into two different plots for the project. Group A would be the experimental group, which would be treated with the garlic oil. Group B would be the controlled variable which would only be infected with crown gall and not treated with garlic. Garlic capsules were purchased and a thumbtack was inserted into one side of the capsule so that the liquid would come out and this was placed on the stem of the plants. Results The results were negative because the garlic did not prevent or prolong the cancer. The garlic even stunted plant A's growth. Conclusions/Discussion Reasons for the negative results have so many maybes. The amount of garlic that A plants were treated with (1 capsule a day for a week) might have been too much. Too much of a good thing can be bad. The other variable that might have effected the result of the project was other nutrients or ingredients that could have been in the garlic. At the beginning of the project, the scientist assumed that the garlic capsule held pure garlic but at the end, the scientist was wary. There were other ingredients in the capsule that could have effected the results of the project.	
Summary Statement My project is about if garlic capsules can prevent crown gall, which is basically cancer, in plants.	
Help Received Supervision and help of Oscar Cabrera (father)	