



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Christiana Y. Chen	Project Number J1407
Project Title Can Rose Plants Host Xylella fastidiosa?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To see if Xylella fastidiosa can be hosted inside a rose plant.</p> <p>Methods/Materials Stem cuttings of rose plants were from my backyard; Xylella fastidiosa was given by expert. For each experiment, first inoculate water into 3 rose plants, and X. fastidiosa into the other three. Then, wait about a week or more before isolation.</p> <p>Results A week after the isolation process of the first experiment, bacterial colonies were in the culture medium from the rose plants inoculated with X. fastidiosa. All three plants had X. fastidiosa growing inside, although number of colonies varied. There was as little as 2 colonies in one plant to 154 colonies. Roses inoculated with water had no bacteria colonies. In the second experiment one rose plant (with Xylella inoculated into it) had no bacteria growing inside. However, the other two had bacteria colonies (23 and 510).</p> <p>Conclusions/Discussion The results from both experiments show that the ordinary rose plant is able to host the pathogen X. fastidiosa. Therefore, my hypothesis that rose plants can host X. fastidiosa was supported. During this whole process, there were also no visible symptom differences between the roses inoculated with X. fastidiosa and water. This means that, roses can be a silent host of X. fastidiosa.</p>	
Summary Statement The purpose of this project was to see if rose plants can host the plant pathogen, Xylella fastidiosa.	
Help Received Father helped write report; Mother helped edit report; Used lab equipment at the USDA Agricultural Research Center in Parlier, CA, under the supervision of Dr. Jianchi Chen; Rebecca Alvarez, Dr. Chen's lab assistant, helped isolate rose plants; Greg Phillipps, Dr. Chen's lab assistant, helped isolate rose plants.	