



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Nishanth P. Jayram</b>	<b>Project Number</b> <b>J0406</b>
<b>Project Title</b> <b>A Comparison of Vitamin C in Modern and Older Rose Varieties</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Through hundreds of years, various hybridization methods have been developed for producing rose varieties, mainly for cosmetic reasons. Since rose hips are used for their Vitamin C content, these methods could affect the amount of Vitamin C concentration. My hypothesis is that modern roses have less concentration than their ancestors. <b>Methods/Materials</b> 11 samples of rose hips were collected from different species. Ascorbic acid (Vitamin C) tablets were used for positive control, distilled water for negative control. Rose hips were mashed, boiled and finally strained to produce the rose extract. Starch and iodine were used to detect Vitamin C concentrations. The data was analyzed both using the age and the available heritage of each of the roses to determine the change, if any, in the Vitamin C concentration. <b>Results</b> Shining Ruby, a modern rose variety (1992), had the most Vitamin C concentration, while Climbing Old Blush (1752) had the least. But in general, the Vitamin C concentration was neither increasing nor decreasing by age. <b>Conclusions/Discussion</b> My hypothesis was not true since there is no correlation between the age of rose and Vitamin C concentration. For future research, I would study the relationship between Vitamin C concentration in other families where the heritage data is fully known. Another direction is to study the concentration where non-natural methods such as fertilizers have been used.	
<b>Summary Statement</b> I studied whether modern roses have less Vitamin C concentration than older roses.	
<b>Help Received</b> Selected rose samples from Guadalupe Rose Gardens. Mrs. Sarah Thaler supervised my experiments.	