



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Savera Y. Bholat	Project Number J1902
Project Title Bloom or Gloom? Evaluating Options to Extend the Life of Cut Flowers	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The goal of my project is to find out if adding copper wire, lemon juice, or aspirin to water will help cut flowers retain their color, petals, and minimize the angle of droop for the longest amount of time. The parameters that I am measuring are very important factors, both for the people in the floral industry and for those who like to keep cut flowers at home. My objective is to come up with a recommendation that can be used in real-life situations. I hypothesize that the aspirin will be the most effective addition for cut flowers because it kills bacterial overgrowth which could clog up plant tissue and slow the water supply. Slowing or cutting of the water supply to the flower is what leads to discoloration, petal loss, and droop.</p> <p>Methods/Materials Flowers, aspirin, lemon juice, copper wire, water, vases, protractor. Set up 10 flowers in each solution type i.e. floral water with aspirin, lemon juice, copper wire and plain tap water as a control, totaling to 40 flowers in four vases. Labeled each flower. Measured change in color, change in angle (also known as the "droop") and loss of petals every three days, over a period of 13 days for each of the 10 flowers in each of the four solutions. This led to a collection of 600 individual data points. Developed a quantitative scale for color change using paint color samples. Collected data until the flowers could not be used in a bouquet, and developed graphs.</p> <p>Results Copper wire was the most effective addition to the floral solution and helped keep the cut flowers freshest and usable for the longest period of time.</p> <p>Conclusions/Discussion My mother is a florist who works on wedding and other events. She is very particular about how her flowers look, and has a huge amount of work to do the day before she has to deliver her arrangements. I wanted to find something that could help her distribute her work a little better. That is why I thought of doing this experiment. Learning about the copper wire is something important to her work, and can be used by other florists and people who would like to keep their flowers fresh.</p>	
Summary Statement Evaluating Options to Extend the Life of Cut Flowers	
Help Received Sister Maryam helped guide my project in the correct direction. Ms. Mauzy-Melitz answered general questions.	