



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

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| Name(s) Janelle M. Jordan | Project Number J2009 |
| Project Title Dye Hard: Speeding Up the Coloring Process of Carnations | |
| Abstract Objectives/Goals "Let it soak for several days" read the instructions. Huh? By the time it would be fully colored, the carnation will be wilted. There must be a better way! So began my experimentation to determine if there was a method to rapidly colorize carnation flowers before they died. Methods/Materials White Carnation Flowers, Water, Vinegar (Balsamic, Rice, Distilled White, and Red Wine), Dye. After researching what substances are used when dyeing, I selected Vinegar as my chemical of choice. But, which type of vinegar, if my project did succeed, would speed up the process the most? Balsamic, Rice, Distilled White, or Red Wine? I mixed the dye with each vinegar, purchased Carnations, split the ends of the flowers and placed them in the mixture. Results The results of my testing did not support my hypothesis that balsamic vinegar would color the carnation the fastest and strongest. Conclusions/Discussion In my first testing I made many mistakes and although balsamic did well then, after testing more times, I found that it actually did not speed up the coloring process the most. I found that either white distilled vinegar or rice vinegar would be the best choice from the results. The next time i have a chance to take this project further, I would test it with blue food-coloring, to make sure that. If you wanted to change the color of white carnations to any color before they wilted or died, you could try this, in order to decorate a room, for photo shoots, or for a personal gift to a loved one. Then I charted how long it took each mixture to colorize the flower, on a color scale that i made, until saturation. | |
| Summary Statement Discovering ways to chemically speed up the process of colorizing carnations before they wilt | |
| Help Received Family took pictures for me - I typed my own report and designed/built my board. | |