



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Emily E. Barron	Project Number J2101
Project Title Do Debbie Meyer Green Bags Really Work to Preserve Fruits and Vegetables?	
Objectives/Goals Evaluate Debbie Meyer Green Bags to determine if they are better for storing fruits and vegetables than just using Ziploc plastic bags or no bags, with or without refrigeration.	
Abstract	
Methods/Materials Method 1. Put 2 of each sample into green bags, 2 in plastic and 2 with no bag: With each of the 2 samples leave one on the kitchen counter and then put the other in the refrigerator. 2. Take pictures of fruits and vegetables everyday and observe them. 3. After 14 days swab each fruit and vegetables with a sterile Q-tip and wipe over the agar Petri dishes. 4. Wait for cultures to grow and observe them and take pictures. 5. Decide which type of preserving was the best to use. Materials 6 Debbie Mayer Green Bags 6 Ziploc Double Zipper Multi-Purpose Storage Bags (Gallon size) 12 Ziploc sandwich size bags 9 Paper plates 12 Prepared Petri Dishes with Blood Agar 5 percent Sheep Blood 24 Sterile Q-tips Tri-pod Camera Data Book Refrigerator 12 Tomatoes 12 Bananas 6 Broccoli Crowns 12 Leaves of lettuce	
Results I determined that using Debbie Meyer Green Bag is effective for extending the life of produce. They work better than Ziploc Bags or without a bag.	
Conclusions/Discussion My experimentation proved my hypothesis to be correct. The Green Bags were the best way to preserve the fruits and vegetables. The Green Bags absorbed and removed the ethylene gas which helped preserved the produce. The plastic bag locked in the gases which made the fruits and vegetables decay faster. The fruits and vegetables not in a bag dried out quickly which made them become rubbery and limp. The refrigeration also helped in slowing down the decay rate. Compared to the non-refrigeration, the products with refrigeration looked better in appearance and smelled better. In conclusion, I would recommend buying the Debbie Meyer Green Bag.	
Summary Statement I determined the best way to store fruits and vegetables to retain freshness.	
Help Received Mother assisted in taking pictures.	