



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> Nicholas J. Hickernell	<b>Project Number</b> <b>J0507</b>
<b>Project Title</b> <b>Do Oranges Lose or Gain Vitamin C After Being Picked?</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My objective is to see if an orange stays on the tree longer will it have more Vitamin C than one that is picked early. I think the orange that was picked on January 12, 2004 will have the most Vitamin C. I think this because it seems the longer the orange is on the tree the more it is nourished from the tree. The orange was also twice the size as the one picked on December 19, 2003. <b>Methods/Materials</b> I picked three oranges on three different days. I kept them in a cool refrigerated place. I made a Vitamin C solution, an iodine solution, and a starch solution to test how much Vitamin C is in oranges the longer they stay in the tree. I squeezed the juice from each orange and tested it by using a titration method. <b>Results</b> The orange that was picked on December 19 had the most Vitamin C. It took six drops to titrate it. The orange picked on January 6 took seven drops to titrate it. The orange picked on January 12 had the least Vitamin C. It took ten drops to titrate it. It was almost two to one. <b>Conclusions/Discussion</b> The orange picked on December 19, 2003 had the most Vitamin C. The reason I think it had the most Vitamin C is because Vitamin C is a water soluble vitamin and the oranges picked on January 6 and 12 were so much bigger with more juices. They were also sweeter.	
<b>Summary Statement</b> My project is about finding out if oranges lose or gain Vitamin C after being picked.	
<b>Help Received</b> Dad helped me with the solutions; Mom helped me with my board.	