

# CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s)

**Emily Y. Wang** 

**Project Number** 

**J2031** 

**Project Title** 

# **Fruity Fermentations**

#### **Abstract**

## Objectives/Goals

My project determines how certain fruit's ripening process are affected by ethylene gas.

#### Methods/Materials

One of five different kinds of fruits, cherimoya, banana, avocado, pear, and mango, in same numbers and comparable sizes, were place in airtight bags and one were left in the open air. The fruit enclosed in the airtight bag were stored with two apples and the fruit in the open air were surrounded by multiple apples. The fruits were tested for two weeks. To test the extent of ripeness for each fruit, I cut open each fruit and applied iodine starch solution.

#### Results

My results showed that the cherimoya in the open air was most effected by the apples, but the cherimoya in the bag was least effected by the apples. However, the banana in the airtight bag was more effected by the ethylene gas than the banana in the open air.

## **Conclusions/Discussion**

Except for bananas, all fruits tested ripened faster in the open air than in enclosed bags, with cherimoya showing the most effected by the ethylene gas created by the apples.

### **Summary Statement**

What effects ethylene gas, created by apples, have on the ripening of various fruits.

#### Help Received

My science teacher, John Briner, critiqued the procedure and experimentation of my project. My partns and sister helped on the assembling of my board.