

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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Project Number

J1602

Project Title

Are We Ripe Yet?

Abstract

Objectives/Goals

The objective of this project was to study the ripening process of peaches in different container materials to determine which environment caused the sugar production rate to rise the most.

Methods/Materials

The materials that were used in this project were 70 unripe peaches, 2 27cm. x 28cm. ziploc bags, 2 paper bags, 2 bananas, 1 refrigerator, 1 refractometer, and 3 pieces of newspaper.

The experiment was conducted by placing 10 unripe peaches in each of the 7 environments. For each of 15 consecutive days, a peach from each of the 7 environments was removed and tested using the refractometer. All data was logged.

Results

The results of this project showed that the peaches inside the paper bag with a banana exhibited the highest rise in sugar production rate over the 15 day period.

Conclusions/Discussion

In conclusion, it was determined that the peaches in the paper bag with a banana ripened the most over the 15 day period because of the release of ethylene gas from the banana. This release of ethylene triggered the multiple genes responsible for the ripening process.

Summary Statement

This project is designed to determine under which circumstances a peach will ripen the most.

Help Received

I used a refractometer borrowed from California Specialty Citrus.