CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY

Name(s)
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Project Number
S1604

Project Title
Stimulating the Fruit Ripening Process

Abstract

Objectives/Goals
Is the fruit ripening process in bananas, pears, and avocados accelerated the fastest by temperature, amount of sunlight, ethylene gas exsposure, being in an open air environment, or being in an air tight environment?

Methods/Materials
The materials that were used in the course of my project were 24 apples, 16 pears, 16 avocados, 16 bananas, 12 brown paper bags, 24 ziploc bags, 18 open Tupperware containers, 1 digital camera, and 1 card table.

Results
The fruits that were in open containers with apples, and were either in a brown bag or at room tempertature ripened the fastest. The open containers containing fruit rripened faster than those in a ziploc bag by a considerable amount. The slowest ripening condition was the combinations that were inside of the refrigerator.

Conclusions/Discussion
My conclusion is that the fruits that were exposed to an apple, which produces ethylene gas, and that were in an open air container ripened the fastest. The conditions that stimulated the ripening process the most were the fruits in a brown paper bag (no sunlight) and the fruit at room temperature. I attribute this to the fact that the exposure of the fruits to air, and all of its elements, mixed well with the ethylene to really speed up the process. Fruits that are ripened with apples in an open container at room temperature or in a brown paper bag will ripen at the greatest speed.

Summary Statement
My experiment was on the affects of ethylene gas on the fruit ripening process, and also on all the other favorable conditions for ripening fruit.

Help Received
My mother helped me by driving me to the store to buy the fruits, and also my sister for giving me good ideas on being creative.