

CALIFORNIA STATE SCIENCE FAIR 2003 PROJECT SUMMARY

Name(s)

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Project Number

J1125

Project Title

Ripening Bananas with Ethylene Gas

Abstract

Objectives/Goals

The objective of my experiment was to see if different environments will accelerate or decelerate the ripening process of a banana. Also, what effect temperature and/or light would have on a banana.

Methods/Materials

I placed one banana in three different environments: refrigerator, under a window, and inside a brown paper bag. Every day I wrote a description of each banana and the temperature of their environment. Every other day I took a picture of each banana.

The materials used in this experiment were three green bananas, a refrigerator, a brown paper bag, one refrigerator thermometer, two regular thermometers, a camera, and film.

Results

The banana placed inside the refrigerator, with a temperature ranging from 2-10 degrees Celsius, ripened the slowest. The banana placed inside the brown paper bag had a ranging temperature of 20-23 degrees Celsius. This banana ripened the fastest. The banana under the window had a ranging temperature of 21-24 degrees Celsius and ripened the second fastest.

Conclusions/Discussion

My conclusion is that the lower the temperature is in an area the slower the banana will ripen. The higher the level of ethylene, the gaseous hormone responsible for the ripening of fruits and vegetables, the faster the banana will ripen.

Summary Statement

My project is on the ripening process of a banana and how it can be affected by different variables such as the level of ethylene gas, temperature, and light.

Help Received

Mother helped type journal entries and helped with project board; Neighbor helped with project board graphics.