

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

Muchang Bahng

Project Number

J1501

Project Title

How Do Different Types of Sweeteners Affect Yeast Growth?

Abstract

Objectives/Goals

The objective of this experiment is to find out how different kinds of sweeteners may affect yeast growth.

Methods/Materials

Ten doughs with different kinds of sweeteners and two doughs for control were made. The doughs were put into jars and sealed. The height of the doughs were recorded after one hour and two hours. Each experiment was repeated 3 times.

Results

The average height (in cm) of glucose is 13.0; fructose 13.2; D-(+)-galactose 10.8; sucrose 12.3; D-(+)-maltose 10.3; lactose 10.5; saccharin 8.6; aspartame 10.9; honey 11.8; maple syrup 13.1; control 1 10.7 and control 2 10.9.

Conclusions/Discussion

The results suggest that glucose, fructose, and maple syrup are the best kinds of sweeteners for yeast fermentation while artificial sweeteners, D-(+)-galactose, and lactose are not good for yeast fermentation.

Summary Statement

This project is about observing the growth of yeast when it is fed with different types of sweeteners.

Help Received

Father helped me with research