

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

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Project Title Lemonade: The Sweet Solution

Abstract

Objectives/Goals My project is about which sweetener tastes most like sugar in lemonade. Among the four most popular sweeteners, one must taste closest to the lemonade with sugar.

Methods/Materials

In this experiment, the independent variable are the sweeteners. The dependent variable is the taste. Five pitchers of lemonade were made with one composed of sugar lemonade, and the others with different sweeteners (Equal, Sweet n' Low, Truvia, and Splenda). Samples of all the lemonades were given to twenty volunteers. The results were collected.

Results

The findings of my experiment are that the more closely related people are, the more similar their opinion about taste. Also, people within age groups have similar opinions about taste. These results may have to do with what people are used to drinking.

Conclusions/Discussion

The conclusions of my experiment are that majority of the volunteers favored Equal, where aspartame is the active ingredient. My hypothesis was incorrect; I guessed Splenda would be the most similar to sugar in lemonade. If I do this project again, I might test which sweetener tastes the most like sugar in solids. In the real world, my project can be used to help diabetics and people trying to lose weight. The results of this experiment gives diabetics an idea of which sweetener to use if they want lemonade. People who watch weight have a healthy but tasty alternative.

Summary Statement

My project is a sensory taste test involving artificial sweeteners compared to sugar in lemonade.

Help Received

Neighbor provided lemons and friends become taste panels.