

CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Project Number

Joedina Crocker

J2002

Project Title

Using Water Saturation to Affect Kernels' Popping Ability

Abstract

Objectives

The objective on the experiment was to increase the yield of popped popcorn by saturating the kernels prior to popping.

Methods

A Presto hot air popper was used during the experiment. Great Value yellow popcorn was used during the entire experiment, and tap water was utilized to saturate the popcorn kernels. Lastly, a plastic container was used to soak the popcorn.

Results

5 batches of popcorn kernels were popped without soaking (the controlled group), yielding an average of 333 kernels that popped, and 5 batches were soaked (the test group) with the hope of increasing the amount of kernels popped. In the end, the soaked popcorn did not yield a significant increased average.

Conclusions

Apparently, soaking the popcorn kernels didn't significantly change the amount of popcorn popped. With a 95% confidence, if this experiment was to be repeated, the averages would fall within the upper and lower confidence levels shown within the error bars on the graph.

Summary Statement

The point of the experiment was to investigate whether increasing the amount of time that the kernels soaked would result in an increased amount of kernels popped.

Help Received

Mr. Lewis helped with purchasing the materials needed for the experiment. Mrs. Gutcher helped with teaching the statistics.