

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s)

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Project Number

J0509

Project Title

Comparing the Vitamin C Levels in Various Vegetables after Steam Cooking

Objectives/Goals

Abstract

The purpose of this experiment is Comparing the Vitamin C Levels in Various Vegetables after Steam Cooking. It is important to the real world because our bodies need a certain amount of Vitamin C each day to remain healthy. Picking the right vegetables and preparing them the proper way will allow individuals to maintain the highest nutritional benefits and maintain a healthy lifestyle.

Methods/Materials

This test will have four independent variables and a control group.

Test Set Up

Rinse each vegetable under water in a colander, chop each raw vegetable up in 2cm chunks. Place each vegetable in test tubes for ten trials each using vitamin C titration testing solution. Then steam each vegetable for 10 and 15 min trails. Chop each vegetable after steam cooking into 2cm chunks. Place each vegetable in test tubes and perform testing using vitamin C titration drops for 10 trails each and record results.

Administration

Pour 4 cups of water in a pot let boil add each vegetable in steamer basket and steam on stove top for 10 and 15 minute increments. Repeat process for each variable separately. Test vegetables raw and cooked and record results.

Sample Collecting and Processing

Gather data collected by testing each vegetable raw, steamed for 10 and 15 minute trials. Add drops of titration solution to turn blue water clear, and record results. Then compare which vegetable contained the most Vitamin C after using the steam cooking method. The least amount of titration drops used the higher the vitamin C content.

MATERIALS:

Broccoli, Carrots, Asparagus, Zucchini, water, colander, measuring cup, pipets, titration testing solution kit, steamer basket, gloves, knife, cutting board, spoon

Results

Discussion: After steaming Broccoli, Asparagus, Carrots, and Zucchini for 10 trials at 10 and 15 minutes each, it was determined that Zucchini was the vegetable that had the highest vitamin C present.

Conclusions/Discussion

After completing this investigation of Comparing the Vitamin C Levels in Various Vegetables after Steam Cooking it was determined that my hypothesis was accurate. The Hypothesis stated that Zucchini would

Summary Statement

Comparing The Vitamin C Level In Various Vegetables After Steam Cooking showed a significant change from 1st year study to 2nd year Study.Broccoli was not first in this years experiment, it was Zucchini.

Help Received

Mom helped me with photos on the board