

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

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Project Number

J0517

Project Title

Feel the Burn: Energy Content in Food

Abstract

Objectives/Goals

The original hypothesis had stated that 5% more fat would lead to a higher caloric content. The researcher had hoped to prove this through experimentation.

Methods/Materials

The method that had been used to receive results had been, and is commonly known as, the bomb calorimeter method. This is where food is completely oxidized to receive a reading. The calorimeter has been constructed using materials at hand; this is also true for the balance that was made. These include k#nex, wood, beakers, small heat resistant bowls, wire, and a nail to hold the food sample while it was being burned.

Results

When experimenting, the water that would give the results had an average rise in water temperature of 9.46 degrees Celsius. This was the average of all the foods that had been tested. All of the cereals had been tested the same way.

Conclusions/Discussion

After experimentation was complete, all of the results pointed to the statement that fat has a major impact on the amount of calories that are within a food.

Summary Statement

Through many trials in the area of energy content in foods, it has become apparent that fat does cause food to have more calories per gram or per serving than non fat food.

Help Received

Help Received by my Dad, Buddy Iannone Supervised use of open flame.