

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

Kimberly Cain; Lauren Leach

Project Number

J1010

Project Title

Carbs or Protein: Who Has More Power?

Abstract

Objectives/Goals

Our object was to learn if a hamster could produce more energy on a complex carbohydrate diet or a protein diet.

Methods/Materials

We mounted a laser cut disk to a plastic exercise hamster wheel. We then attached a digital electronical meter to the exercise wheel. We purchased 2 hamsters of the same size and from the same litter. We fed the hamster a complex carbohydrate diet for four days. We fed the hamsters a vegetarian diet for one day to cleanse their system and then fed them a protein diet for another four days. We repeated this process for eight weeks. We fed them every night at 8 PM and took a reading of the energy they produced every night at 9 PM.

Results

We found that the hamsters consistently produced more energy on a complex carbohydrate diet than with a protein diet.

Conclusions/Discussion

Our conclusion is that a complex carbohydrate diet generates more energy and endurance for a hamster. Through our research and carb/protein experiment we believe this proves true for an athlete as well.

Summary Statement

This project is about what type of diet, complex carbohydrate or protein, produces more energy.

Help Received

Father helped assemble the exercise wheel. Mother helped type the report.