CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY

Name(s)
Megan M. Arana

Project Number
J1401

Project Title
Some Like It Hot

Abstract

Objectives/Goals
My goal in this project is to find out if hot chili peppers will raise a human being's temperature.

Methods/Materials
Materials: 20 volunteer subjects, Data sheets, Rubber gloves, Oral thermometer, Probe covers for thermometer, One quarter cup measuring cup, Habanero peppers, Serrano peppers, Jalapenos peppers, Roma and garden tomatoes, Onions, Cilantro, Tortilla chips, Containers to put salsa in.

Procedure: The first thing I did for my science fair project was selected three varieties of chili peppers. I asked 20 volunteer subjects to eat three salsas, a different pepper in it each salsa. I took their temperature before and after they ate the salsa. I recorded the data and analyzed it.

Results
In every salsa test I did everybody's temperature changed whether it was higher or lower. Subjects who ate the peppers with the higher (SHU), had their temperature raise. Subjects who ate the peppers with the lower (SHU), their temperature dropped at least by a point. The body temperature stayed consistently higher or lower even after rechecking 5 minutes later.

Conclusions/Discussion
My hypothesis was partly right, your temperature does rise when you eat a chili pepper that is high in capsaicinoids. Your temperature goes down if you have a cooler salsa. The capsaicin seems to affect body temperature. Scientists are experimenting with the anti-inflammatory and anti-coagulant uses for capsaicin, so I conclude that it must thin the blood in certain concentrations.

Summary Statement
My project is about learning if the chemical make-up in a chili pepper will affect a human being's body temperature.

Help Received
My Mother edited my written work, my little sister helped me make the salsa, and my project advisor Judy Miller, just kept me going with little tips.