

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Project Number

S0212

Name(s)

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Project Title

Its Gotta Be the Oil

Objectives/Goals

Abstract

Our experiment was to determine what used cooking oil would run a lawn edger the longest. we thought that it would be the Wesson Pure Corn oil.

Methods/Materials

The only variable in my experiment was the type of cooking oil. i used Corn, Vegetable, Peanut, Canola, Olive, and Safflower Oils. Each oil was tested four times, for a total of twenty-four experiments. French fries and fish sticks were cooked and oil filtered. I timed how long the lawn edger ran on one hundred ml. of oil. We controlled the brand and amount of food, heating, cooking, and cooling times, amount of oil, and outside temperature. We always used a new cooking filter, new spark plug, and a gas cleaned lawn edger.

Results

The six oils that we used in our experiment in final ranking order were: (1st) crisco Pure canola oil, (2nd) hollywood renriched gold pressed safflower oil, (3rd) crisco pure vegetable oil, (4th) wesson pure corn oil, (5th) Bertolli Classico 100% pure olive oil, (6th)hollywood enriched peanut oil, which did not run at all.

Conclusions/Discussion

Our hypothesis was that the corn oil would run the lawn edger the longest, but the Canola oil was the best fuel. it was the only one that stopped running because it was out of fuel. With other oils, not all of the saturated fat bonds were broken down during cooking, so they fouled the spark plug.

Summary Statement

Our project is about used cooked oils and which one could run a lawn edger the longest.

Help Received

no help.