



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

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Project Title
Product Label Truthfulness: The Difference between Canned Whole Kernel Corn

Abstract

Objectives/Goals
To find out if the labels on cans of whole kernel corn are all telling us the truth.

Methods/Materials
First I washed off the scale, dried it thoroughly and set it to zero. I carefully opened the can, removed the lid and placed it in the can. I pressed down on the lid as hard as I could so that all the liquid came to the surface. I poured the liquid from the can into the bowl on the scale and measured it in grams. I tested the liquid from the can of corn with my pH test kit. I then filled the clean and dry test tube with 5 ml of corn liquid. I followed the directions to the kit by dropping three drops of the Indicator solution into the test tube. I put the lid on the test tube because if I had placed my finger over it to shake it my body acid could have affected the pH level of the corn liquid. I figured out the reading by using the color chart included in the kit. Then I cleaned the bowl and set the scale to zero. I used my spatula to carefully scoop out the dry corn kernels into the scale bowl and measured it in grams. I used random sampling to pick out 10 kernels of corn and using my metric ruler I placed the flat tip of the kernel on 0 and the rounded tip is where I measured. I filled out my chart using the numbers above and reading the nutrition facts off the backs of the label of the can.

Results
When I compare the Nutrition Facts from the labels on each can I noticed several interesting things. In the ingredients, corn, water and salt were listed on all 12 cans. 10 out of the 12 cans also listed sugar. Only 2 out of the 12 cans measured exactly. The average kernel size ranged from 5.9 mm to 9.2 mm. All of the corn tested in about the same pH range. Out of the 12 cans, only two were clear in color. For the most part all of the cans had crushed corn with a few having seed floating in the liquid.

Conclusions/Discussion
I was wrong in my hypothesis. The winner was S&W when comparing nutrition facts. S&W had the least amount of calories and carbohydrates and also did not add extra sugar. This made it the best for you overall. In corn comparison, only FMV and Heritage brands correctly weighed what was printed on the label of the can. For the taste test, Del Monte was the winner. I can honestly say that choosing the best corn for your family varies depending upon what is important to the individual consumer. There are many variables involved: cost, kernel size, appearance, calories, nutritional values, added sugars, and personal taste.

Summary Statement
The differences between 12 varieties of whole kernel canned corn in nutrition, label truthfulness and taste.

Help Received
My mother helped me type the report, do research on the internet and put the board together. My friends helped with the taste testing.