



# CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

<b>Name(s)</b> <b>Dane F. Holmsky</b>	<b>Project Number</b> <b>J2108</b>
<b>Project Title</b> <b>Does the Fat Content in Dairy Affect Its Taste?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> My goal was to determine how the fat content of whole fat, low fat, and nonfat milk and yogurt affects its taste, and how 8th graders and adults can taste the difference between the two. I believed people would be able to taste the difference between whole fat, low fat, and nonfat milk better than yogurt because low fat milk is more watery and whole fat milk is thicker.</p> <p><b>Methods/Materials</b> I filled 50 milliliter cups with the different styles of milk and yogurt. The dairy products were from Lucerne and Mountain High. Next I gathered 25 adults and eighth graders to taste test the food. Each subject tasted the three styles of yogurt and milk, and tried to identify each as nonfat, low fat or whole fat. The type of dairy products was randomly ordered from subject to subject. Each subject recorded their guesses. Between each taste test of food, subjects rinsed their mouths with water. I analyzed this data to determine how the fat content in dairy products affects their taste.</p> <p><b>Results</b> My data show that 10 out of 25 subjects could correctly identify nonfat yogurt, 12 out of 25 subjects could correctly identify low fat yogurt, and 14 out of 25 subjects could correctly identify whole fat yogurt. My data also show that 15 out of 25 subjects could identify nonfat milk, 10 out of 25 could identify low fat milk, and 8 out of 25 could correctly identify whole fat milk.</p> <p><b>Conclusions/Discussion</b> My hypothesis was partly correct, and partly incorrect. I predicted that subjects would more easily identify nonfat milk and yogurt than the low and whole fat products, because it has a less rich taste and more watery texture, and this was partially correct and partially incorrect. It was incorrect because I hypothesized that subjects would identify the nonfat yogurt easiest and that was not the case. My hypothesis was also correct because I hypothesized that the subjects would be able to identify the nonfat milk better than whole and low fat, and this was true. My experiment showed that subjects could not taste the difference between the three very easily. Overall my hypothesis was mostly correct. My experiment is important because people usually think the fat content in dairy products affects its taste. I wanted to find out if people could actually taste the difference. Because people could not taste a huge difference between the products, they can eat healthier by eating nonfat milk and yogurt instead of higher fat products.</p>	
<b>Summary Statement</b> My project is about how the amount of fat in milk and yogurt affects its taste and if subjects can taste the difference.	
<b>Help Received</b> Aunt drove me to buy dairy products at the store.	