



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Ahmed B. Mabrouk	Project Number J0507
Project Title How Sweet It Is	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project is to test which natural food types will give the fastest amount of glucose to the human body. The foods that are to be tested are all completely found in nature they range from honey, dates, and grapes. All of these are widely known to be sweet and pleasing to the test. These foods are to be tested before adding invertase, and enzyme that breaks sucrose into glucose and breaks down lactose to glucose.</p> <p>Methods/Materials Different concentrations of glucose tablets will be produced 0.5%, 0.25%, 0.09%, 0.08%, 0.07%, 0.0625%, and 0.06%. Followed by testing with the glucose meter and strip, the results will be recorded and will be compared to different solutions prepared from natural foods such as, dates, honey, and grapes. Different kinds of fruits will be tested after a dilution converting it to a 2.5% concentration of component to liquid. Therefore the glucose strip will be placed in the substance and the measurements will be recorded. Then one drop of invertase enzyme will be placed in 20 mL of water. Then over time periods of 45 minutes the amount of glucose formed from the reaction of the enzyme will be recorded.</p> <p>Results The results of this experimentation followed my hypothesis. Honey contained the highest glucose before adding the invertase enzyme. It was followed closely by dates; however there was a gaping hole between the reading of dates and the reading of grapes.</p> <p>Conclusions/Discussion The reason why there is almost no sucrose in honey for it is almost raw monosaccharaides (Glucose, Fructose). It is created from bees that have already digested and broke down all the complex sugars in honey. This is the cause why dates began to pull closer to honey for it contains more sucrose then honey.</p>	
Summary Statement Natural alternatives to treat hypoglycemia instead of the usage of glucose tablets.	
Help Received Mother helped with board, father helped to commence the experimentation, Ms. Hanan supervised the project.	