



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Lindsay P. Giebel	Project Number J1109
Project Title Horses and Sugar	
Abstract Objectives/Goals The objective of my project was to discover if horses have a preference as to which type of simple sugar they eat, if they will eat any at all. Methods/Materials My experiment required 10 to 15 horses, paper bowls, a 30 gram plastic scoop, powdered sucrose, glucose, fructose, lactose, and maltose, and a data sheet. I put different types of sugars into the paper bowls, and offered them to the horses in turn. Results In the end, the horses would not eat glucose or lactose. They were undecided on fructose, but leaning towards dislike. They enjoyed sucrose and maltose. Conclusions/Discussion I concluded that they did not eat the glucose because it smelled disgusting. Lactose is milk sugar, which horses are not exposed to after they stop nursing, so their refusal was not a surprise. The only surprise is that they refused the fructose, which is fruit sugar, and horses like most fruit. They ate the sucrose, which is just regular table sugar. Their favorite was the maltose, which is made from grains. Grains are the major staple in horses# diets, which is most likely the reason for this choice.	
Summary Statement My project determines that horses prefer certain simple sugars over others.	
Help Received My mother took pictures and carried supplies, my friends, Ekila and Mandy, helped record data, Gloria let me use her horses, and Mrs. Vodraska encouraged me.	