



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Joseph A. Huitt	Project Number J2207
Project Title Honey! Where Is All the Honey? The Effect of Stored Pollen Supplies on Honey Production	
Abstract Objectives/Goals My objective is to determine if honey production is effected when certain pollen is stored in hives prior to the honey production period. Methods/Materials During the course of this two-year study, I observed 144 beehives. One half (72) of the hives were taken to almond and prune pollination and were able to store pollen and nectar from these crops during February and March. The remaining half (72) of the hives were reserved from almond and prune pollination and were instead kept in foothill locations and fed sugar water. The bees were moved May 5, 2013 and May 7, 2014 to Fallon, Yerington, and Smith Valley, Nevada. Each of these locations received 24 hives from the pollination treatment and 24 hives from the sugar treatment. Results In 2013 average honey production was 77 pounds per hive in the pollen treatment and 48 pounds in the sugar treatment. In 2014 average honey production was 75 pounds per hive in the pollen treatment and 50.5 pounds in the sugar treatment. There was a 38% increase in honey production when I took my beehives first to almond and prune pollination; where they could build up pollen first. This pollen is richer in nutrients and has the 10 essential amino acids for brood development. Conclusions/Discussion The results of the experiment supported my original hypothesis that pollen availability to beehives prior to the honey production period increased honey yields. Further research will be conducted using drone pheromones to see how well it will work to reduce Varroa Mites naturally so as not to contaminate the honey. I will do a study with the drought to see if the bees will make honey in a drought year.	
Summary Statement I tested if pollen availability prior to honey production would affect honey yields.	
Help Received My mother provided the beehives and transportation for the hives and I to various bee yard locations.	