



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

<b>Name(s)</b> <b>Hunter Cleveland; Joshua Oakes</b>	<b>Project Number</b> <b>S2204</b>
<b>Project Title</b> <b>Feast or Famine: An Observational Study on the Effects of Varying Food Levels on a Drosophila hydei Colony's Success</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective was to determine which food level would result in the most successful <i>Drosophila hydei</i> colony. It was hypothesized that the colony which receives the largest amount of food (Colony A) will produce the most offspring, therefore becoming the most successful.</p> <p><b>Methods/Materials</b> Five <i>Drosophila hydei</i> colonies were made and observed during each trial. Each colony received a different amount of food. Colony A received 50 mL, B received 40mL, C received 30 mL, D received 20 mL, and E received 10mL. An eighteen day period was allotted for each trial and the colonies were observed for the duration. Success was then measured upon the number of offspring produced in each colony.</p> <p><b>Results</b> Colony E was the most successful of the five colonies observed. Colony E produced or tied for the most offspring in each of the two trials.</p> <p><b>Conclusions/Discussion</b> The data did not support the hypothesis. However colony A did produce offspring the fastest in each of the two trials. Colony A was always ahead of all the other colonies in terms of the life cycle of the <i>Drosophila hydei</i>. From these results one may form the theory that more food yields faster reproduction rate, but not necessarily more offspring. One may also form the theory that less food yields a slower reproduction rate but a larger amount of offspring.</p>	
<b>Summary Statement</b> To determine which food level results in the most successful <i>Drosophila hydei</i> colony.	
<b>Help Received</b> Mother advised display board layout	