



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Isaiah L.D. O'Neal	Project Number 34520
Project Title For the Venus Flytrap, Does Food Type Affect the Speed of a Trap's Closure and the Duration of the Trap's Closed State?	
Abstract Objectives/Goals This experiment builds on a body of knowledge in the field of carnivorous plants. It investigates an area in which little is known: In a Venus flytrap, does food type affect the speed of trap closure or the duration of its closed state? The hypothesis was that food type would not affect the speed of trap closure but would affect the duration of its closed state. Methods/Materials An experiment was conducted, involving six Venus flytraps labeled Plants #1-6, which received six separate foods. Trap closing time was measured using a slow motion camera running at 600 frames per second. The duration of closure was measured using timelapse video cameras shooting at 1 frame every 80 seconds. The experiment was repeated three times over the course of six weeks. Results When the experiment was complete, it became clear that, contrary to the hypothesis, food type affected not only the duration of trap closure, but also the speed of closure, as closing times varied from :00.139 seconds to :52.815 seconds and duration of closure varied from 6 hrs. 32min. to 19 days, 21hrs. 41min. Conclusions/Discussion While the findings from the experiment have no known practical application at this time, they advance the knowledge of carnivorous plants, and as the study of these plants advances, new applications may emerge for data such as this.	
Summary Statement This experiment tests the effect of food type on a Venus flytrap's speed of trap closure as well as the duration of the trap's closed state.	
Help Received Father taught me how to use Final Cut Pro and MS Word.	