



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Samuel Lang	Project Number J2417
Project Title The Effects of a Worm's Diet on Its Rate of Growth	
Abstract Objectives/Goals In this project, I am trying to see what foods affect a worm's rate of growth in a positive way the most. The food groups are Balanced Mix, High Nitrogen, High Carbon, and Weak Natural Acids Methods/Materials 40 Eisena Fetida worms, 4 glass cups, soil, plastic wrap, digital gem scale. High Nitrogen: vegetable scraps, grass clippings, soybeans, fresh leaves High Carbon: shredded paper, wood shavings, cardboard, dried leaves Weak Natural Acids: Citrus Peels I take 40 Eisena Fetida worms, divide them into groups of 10, and assign each group to a food type. I then label the food types, put the worms in cups with approximately 1.5 inches of soil, then add 5 grams of slightly rotten food from the designated food group. I extract the worms from their cups every day, then wash, dry, and weigh them as a unit. Then, I note the weight and put the worms back in their cups. Once every four days, I add another 5 grams of food from that specific food group. After 8 days of recording, I put all the weight changes on a chart, and make my conclusion from there. The worms are not euthanized, but are reverted to the life of vermicomposting, helping make fertilizer for the garden. Results All the worms were healthy, and gained plenty of weight, but the balanced-diet-fed worms gained the most weight overall. Conclusions/Discussion The results of this experiment support my hypothesis, that the balanced mix-fed worms would gain the most weight. Therefore if raising worms for vermicomposting, a balanced diet would be the best food for their health, size, and productivity.	
Summary Statement This project is about finding the effects of a worm's diet on its rate of growth.	
Help Received Mother helped put together display board.	