



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

Name(s) Perry M. Otto	Project Number J1921
Project Title Which Compost?	
Abstract Objectives/Goals My objective was to see what kind of compost works the most efficient in growing kale and mustard plants. I also wanted to see the different levels in potash, nitrogen, and phosphorous. Methods/Materials Soil tests were used to test 3 nutrients in the mustard and kale plants. These 18 plants were placed into buckets with either mushroom, homemade, or EB Stone Organic store bought compost. They were watered with a consistent type of water and measured with a ruler. The first step made was to test the composts for nitrogen, potash, and phosphorous to determine my hypothesis. Then, I measured the plants daily and watered them the same amount when needed. In addition to watering them, I rotated them to ensure that they would have a similar access to sunlight. Results My results were that the homemade compost, made mainly of animal manure and kitchen scraps, had the highest content of nitrogen and was the compost that worked the most efficiently. I could tell because after looking at the total growth for each plant, the homemade compost was the definite winner. Conclusions/Discussion I thought that the homemade compost would have a greater chance of helping plants grow, because it had the best results from the soil test that I performed. My results show that the homemade compost did do the best. I think that it is because of the surplus of nitrogen in the compost. I could have added additional varieties of plants or compost to compare my results. If I were to research this project more, I would grow some plants in regular soil without compost to see if compost matters at all. Also, I would see if I could find out what causes the plants to spike while they are planted in homemade compost.	
Summary Statement What kind of compost is the most efficient for growing kale and mustard plants?	
Help Received Mr. Chris Nestlerode provided the soil tests; Mom took photos; Dad rotated plants when I wasn't available; Cheryl Potter provided homemade compost; Home Depot and Central Home supply discounted the price of compost.	