



# CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

<b>Name(s)</b> Perry M. Otto	<b>Project Number</b>  34146
<b>Project Title</b> Which Compost?	
<b>Objectives/Goals</b> 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. <b>Abstract</b> <b>Methods/Materials</b> 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. <b>Results</b> 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. <b>Conclusions/Discussion</b> 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.	
<b>Summary Statement</b> What kind of compost is the most efficient for growing kale and mustard plants?	
<b>Help Received</b> 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.	