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|  | Conclusions and Discussion  After taking the statistical analysis, I found that it did not matter for the radish, a root plant, which of the two kinds of compost made up its soil. The type of compost in the lettuce's soil did matter significantly however. The lettuce that was grown in the potato compost had a mean mass that was significantly higher than the lettuce grown in the lettuce compost.  The first test with the radishes, which found no difference between the type of compost and the plant eventually grown, did not support my hypothesis, because the mean mass of the radish grown in the potato compost would have needed to have been statistically greater then the mean mass of the radish grown in the lettuce compost. Surprisingly, the lettuce compost had a higher (although not significantly higher) mass, which refuted my hypothesis.  The second T-test also refuted my hypothesis. The lettuce in the potato compost of grew significantly larger than the lettuce in the lettuce compost. This was also a surprising result that can be explained by unknown factors.  I believe that several factors could help explain the unexpected results of my experiment. The first is that it is reasonable to speculate that the potato compost was more fit for the lettuce compost because of it's higher nitrate concentration. By the same logic, the lettuce compost was more fit for the radish plants with it's higher phosphate levels. A second factor could be that I used too much compost as a soil for the radish plants in the potato compost and for the lettuce plants in the lettuce compost. A way to test this hypothesis would be to use an incrementally smaller ratio of compost to regular soil. If a range of ratios for compost were found that would benefit plant growth at minimal levels, farmers could know exactly how much compost they would need for the acreage of their farms. An outside factor that is certainly related to my project was the bizarre weather patterns that we have experienced thanks to El Nino. This cold weather front slowed the growth of my plants which could have prevented them from reaching several stages of maturity that would have brought along with increased size, a need for different nutrients.  The hypothesis for this set of experiments was that soil enhanced by nutrients provided by vegetable leaves would benefit the growth of leafy vegetables such as lettuce ad that similarly, soil enhanced by a plant reliant on root structure would enhance the growth of root vegetables such as radishes. Careful scientific method was used to test this hypothesis. The results were mixed and unexpected, and my hypothesis was not supported. The experiment is useful in at least two ways, however. First, valuable information was obtained regarding soil preparation for lettuce growing as well as radish growing. Second, the procedure and results suggest that many other research projects could be done in this field, to find the optimum soil enhancement for root and leafy vegetables. |

*This Web Site is Best viewed with 256 or more colors.*

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