**Communica: Message From Webserver to Hostserver.**

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| |  | | --- | | Materials   1. pots or planting trays 2. 1 or more packages of radish seeds 3. aluminum foil 4. saran wrap 5. duct or masking tape 6. cardboard 7. petri dishes or equivalent 8. nitrogen source (blood meal) 9. phosphorus source (super phosphate) 10. magnesium source (magnesium sulfate) 11. potassium source (potash) 12. calcium source (calcium acetate) 13. beaker 14. graduated cylinder 15. dropper 16. scale | |

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| |  | | --- | | Procedure   1. Perform background research on type of plant and choose which soil amendments to use.    1. We chose the radish plant, because it is one of the few plants that can grow quickly in the late winter and they are resistant to the climate.    2. We chose blood meal (source of nitrogen), potash (source of potassium), Epsom salts (source of magnesium), calcium acetate (source of calcium), and phosphate (source of phosphorus). 2. Purchase needed amendments and seeds and purchase pots if needed.    1. Most of the soil amendments were purchased from Orchard Supply. For the calcium acetate, we had to go to a nursery.    2. We got a long plastic tray for free from Home Depot and we lined it with aluminum foil and placed dividers to split the tray into sections. 3. Determine the concentrations of the elements that you wish to vary.    1. First, we germinated seeds and planted them in petri dishes with concentrations that we thought would be proper after researching. We let these plants grow and after noticing their development, we took the concentrations of the well developed plants and used a volume ratio to calculate the concentrations necessary for planting the next batch of seeds. 4. Germinate radish seeds separately in petri dishes with distilled water. Wait until all seeds are germinated. 5. Mix one liter of vermiculite with various soil amendments. Plant germinated seeds into the vermiculite. Water 200 milliliters every day. Keep in the greenhouse, if available. Cover in saran wrap if needed. Also, plant a control batch. 6. Keep track of growth such as plant height, number of leaves, color of leaves, size of leaves, and other measurements every 5 days. 7. Harvest vegetables when ripe. Measure fruit weight and size. 8. Use data to draw conclusions about the prime concentration of soil amendments. | |

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| |  | | --- | | Data  [see raw data and graphs](http://docs.google.com/bio_proj/data.html) | |

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