Experimental Design Diagram

| Title: | | The Effect of Different Levels of Sound Tones on Wisconsin Fast Plant Growth (<i>Brassica rapa</i>) | | |
|--|-------|---|--------|-----------|
| Hypotheses: | | Alternate Higher pitched sound tones will have a positive effect on the growth of Wisconsin Fast plants. | | |
| | | Null There will be no significant difference in the growth of Wisconsin Fast Plants that are exposed to different pitches of sound. | | |
| Independent variable: | | Sound Tone Level (hz) | | |
| Levels: | No So | ound | 500 hz | 15,000 hz |
| # trials: | 12 | 2 | 12 | 12 |
| Control? | cont | rol | | |
| Dependent variable: | | Growth of Wisconsin Fast Plants (average height of plants and average number of leaves at conclusion of study period) | | |
| Operational definition of dependent variable: | | Average Height at conclusion of study = (height of each plant added)/12 Average Leaves at conclusion of study period = (leaved of each plant added)/12 | | |
| | | Height measured in millimeters. | | |
| Constants: | | Plants receive same type and amount of lighting | | |
| | | Plants given same amount of water per day (5 mL) | | |
| | | Plants grown in same amount and type of soil | | |

Styrofoam enclosures are the same for each plant group

Each pot receives the same amount of seeds and similar dispersion

Plants are given the same length of time to grow (2 weeks)

Type of pot is the same for each plant.

Same speaker is used for each plant (if speaker is necessary).