

Activity 34

Plant Growth with Aqueous Castings

Rationale: This activity will be based on various masses of castings. The optimal mass can be determined by growing plants with differing masses of castings used as fertilizer.

Objectives

- 1) Determine the optimal mass ratio of castings to soil mixture.
- 2) Determine the appropriate ratios of castings to soil mixture.
- 3) Record the appropriate measurements.

PDE Standards

Science and Technology

- 3.1.7. A,B,C
- 3.2.7. A,B,C,D,E,F
- 3.6.7. A,B
- 3.7.7. A,B,C,D

Environment and Ecology

- 4.1.7. A,B,C
- 4.2.7. A,C
- 4.6.7. A,B,C

Math

- 2.1.8. A,B,D,G
- 2.2.8. A,B,F
- 2.3.8. A,B,D
- 2.4.8. A,B,D,F
- 2.5.8. A,B,C,D
- 2.6.8. A,B,C,E,F
- 2.7.8. B,C,D
- 2.8.8. F,G,H,I,J
- 2.11.8. A,B

Materials

Fast Plants® seeds
Castings
2-L bottles (20)

Distilled water
50-mL graduated cylinders (10)
100-mL graduated cylinders (10)

Introduction

Fast Plants® grow best under the conditions suggested by the Fast Plants® directions. The bottle pots need to be set up as designed with a wick from the bottom bottle containing water into the soil mix. Specific amounts of aqueous castings will be added to enough distilled water to make a liter of solution to be used to water the plants. If the Habitat is not producing enough castings, they are for sale on the Internet at very reasonable prices. Keep the castings moist since dry castings are sometimes very difficult to remoisten.

Middle School Activities for Vermiculture

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Middle School Activities for Vermiculture

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