

CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s)

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Project Number J1006

Project Title Worms: Earth's Answer?

Abstract

My project was to determine what materials were best for the worms and which were best for the soil. I believe that the pot with a combination of dirt, leaves, coffee, fruit, vegetables and eggshells will be best for the soil and for the worms.

Methods/Materials

Objectives/Goals

Five flower pots with drain dishes were filled with top soil (no added fertilizers) leaving 2 inches at the top empty. The soil was tested first using a home soil testing kit and then dampened with 3/4 cup of water. One pot had only the dirt. For the other four, I added some leaves, coffee and twigs to one pot, one pot I added fruits and vegetables, another had only crushed eggshells and the last one had all the ingredients previously listed. Fifty worms were weighed and then added to each pot for a total of 250 worms. Every few days food and water were added as needed. After two months the soil was dumped out. The worms were counted and weighed and each soil was tested again.

Results

After the second experiment (the first time none of the worms survived after a month), the pot with the leaves, twigs and coffee had the most and heaviest worms. The pot with everything in it had the best soil results.

Conclusions/Discussion

The pot with the leaves, twigs and coffee had the best results because it is most similar to where red worms live in nature (the litter level). The everything pot is most like the traditional method of composting and therefore had the best soil results.

Summary Statement

Finding the most suitable environment for red worms and soil for efficient composting.

Help Received

My Mom helped with grammar. San Carlos Science Fair advisors gave advice and guidance.