CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)
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Project Number
J0631

Project Title
Faster Cleaner Composting: The Effect of Amylase on the Decomposition of Biodegradable Plastic

Abstract

Objectives/Goals
The objective of my experiment is to measure the effect of amylase on the decomposition of a biodegradable plastic spoon by varying the amount of added amylase.

Methods/Materials
Amylase formula, aluminum containers, water, beaker, gloves, kitchen scale, biodegradable plastic spoons. Added different amounts of amylase and measured the decomposition of the plastic spoons over four weeks.

Results
As I added more amylase, the mass of the spoons decreased. The mass varied indirectly with the amylase.

Conclusions/Discussion
After comparing the masses of the biodegradable plastic spoons, I concluded that the more amylase added, lower the mass was after four weeks.

Summary Statement
My experiment shows that when more amylase is added to the spoons, the more the mass decreased and faster the spoons composted.

Help Received
My science teacher helped me by giving me research ideas and reviewing my experiment, and my parents also provided me with helpful information throughout my experiment.