

Effectiveness of Using Worms To Biodegrade Plastic

Riche, Jordan (School: Wildwood High School)

Can worms help reduce the amount of trash in landfills? the researcher wanted to know since waxworms produce a chemical in their gut that biodegrades plastic, if they were blended up and the remains are spread onto a piece of plastic will it biodegrade vs if the researcher leaves the waxworms alive to eat the plastic which would biodegrade faster? Each plastic was measured for mass in grams at the beginning and checked on (re-measured) two times a week. The researcher kept a log of how the worms were evolving by eating plastics. The researcher placed the blended wax worms on the plastic bag in the tank. And lined the other tank with plastic bags (3) and then placed the living waxworms inside. The researcher covered the tank with living waxworms inside with cheese cloth and sealed the edges with tape to secure the cheese cloth. The researcher felt as if they can get enough worms in some of these landfills, we could globally lessen the amount of trash in the world. The researcher's hypothesis was not supported, the blended waxworms did not biodegrade more plastic than the living waxworms. Living waxworms would be more beneficial than blended waxworms according to the researcher's data.

Awards Won: