How Super Are Superworms?

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Polystyrene takes up to 30% of landfill space by volume, and takes over 500 years to decompose. This makes finding a solution to disposing of plastics and Styrofoam imperative. Mealworms, Tenebrio molitor L. may be part of that solution in that they have the ability to consume some polystyrene products because of specialized bacteria in their gut. This experiment was designed to determine the amount of consumption by T. molitor on polystyrene. Our research has shown that on average, T. molitor can consume up to 3.7% of their body weight in polystyrene within fifteen days. This demonstrated to us that T. molitor are a viable solution to aiding in the decomposition of polystyrene products.

Awards Won: