Is Your Soap a Killer?

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In this experiment, the toxicity of green detergents and conventional liquid detergents were compared by testing soap dilutions in the environment of red worms. The purpose of the investigation was to determine if green detergents are safer for the environment then conventional detergents. Phosphate, fragrance, sodium laurel sulfate, etc. found in conventional detergents can make them dangerous to our surroundings. The methods in this experiment included making a dilution series of each detergent. Each dilution series included 0%, 3%, 6%. 12.5%, 25%, 50%, and 100% solutions. For the investigation, styrofoam cups were filled with soil and four red worms were placed in each one. Each dilution of the different detergents being tested was added to one cup with worms. Cups were analyzed after five days to determine how many worms survived in each cup. After analyzing the worm survival data between the green and conventional detergents, it was concluded that the green detergents were better for the environment, it was concluded that the green detergents were better for the environment. The Palmolive Eco was determined to be the safest for red worms since that was the only group in which all of the worms survived.

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