



Can Febreze Affect the Earthworms?

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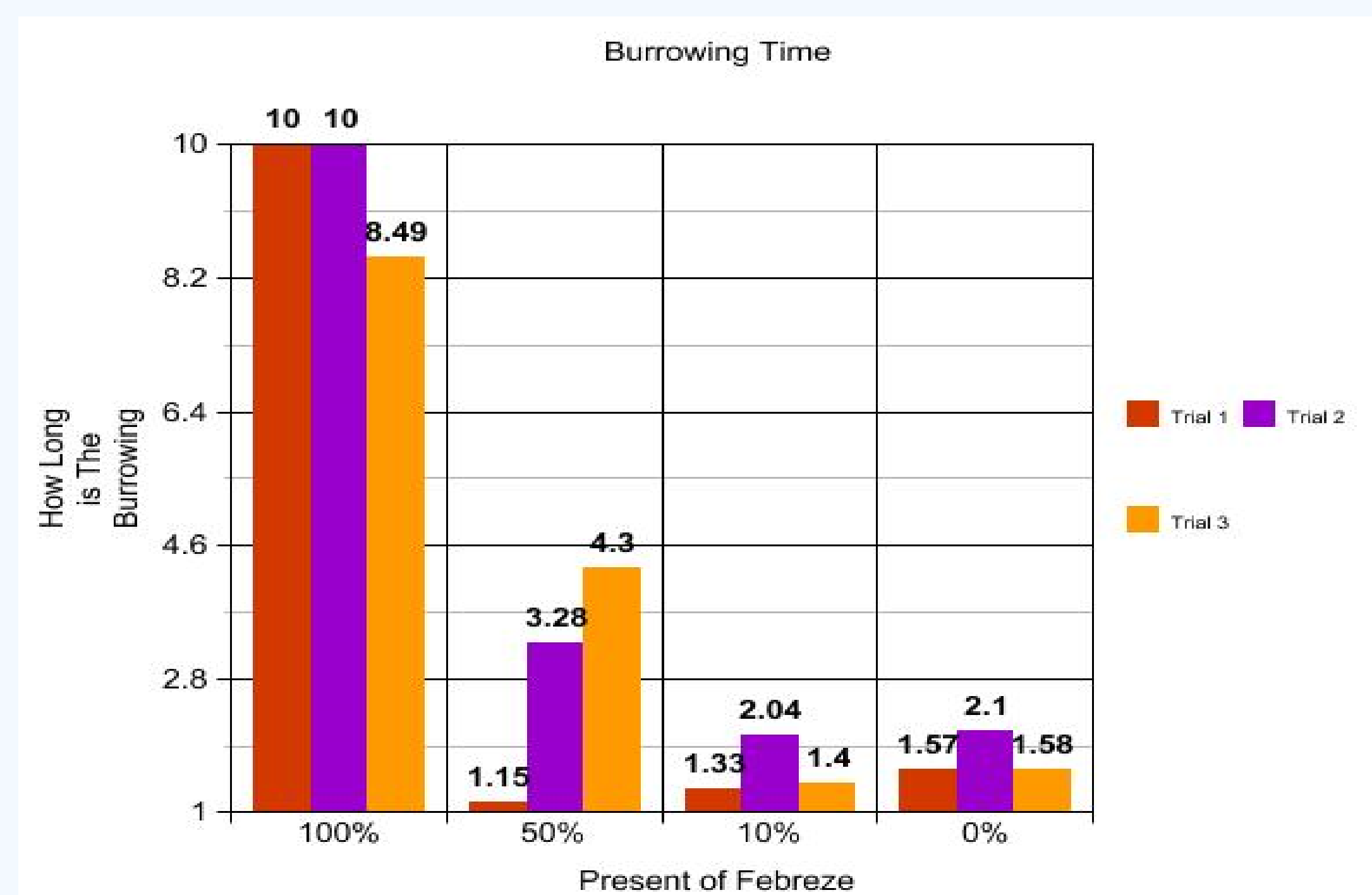


Introduction: Many people use Febreze, maybe even you do. But, do you know that EWG released 89 harmful chemicals in Febreze? Many of these chemicals can cause cancer, irritation, and reproductive issues. This odor battling spray doesn't even kill the odor molecule it just simply covers it or masks it so you smell Febreze and the odor. Many of the chemicals in Febreze are in rubbers, plastics, and other cleaning supplies.

Abstract: The scientists hypothesis was if an earthworm was exposed to febreze, the burrowing time would decrease. They tested this experiment by testing the burrowing time of an earthworm when they were exposed to 10%, 50%, and 100% febreze. When the scientists finished testing they found that febreze partially slowed down the earthworms burrowing time with 50% and 10% febreze. The earthworms burrowing time completely slowed down with 100% febreze. This happened because over a long period of time febreze affects the nervous system.

Materials and Methods: For this experiment the scientists used a chem plate, two droppers, soil, baby worms, and one 1000 ml beaker, 25 ml beaker, 50 ml beaker and 100 ml beaker. The scientists made the 10%, 50%, and 100% solution for this experiment. For this experiment make a solution then put the solution on the paper towel. Put the worm in the 1000 ml beaker and put the paper towel on the worm for five minutes. After five minutes put the worm in the soil and measure the burrowing time.

Work Cited: Environmental working group,
<https://www.cbsnews.com/pictures/ewgs-hall-of-shame-of-toxic-household-cleaners/1>
<http://www.sustainablebabysteps.com/febreze.html>
<https://cvskinlabs.com/7-reasons-why-you-shouldnt-use-febreze-or-other-chemical-air-fresheners/>
<https://www.cbsnews.com/pictures/ewgs-hall-of-shame-of-toxic-household-cleaners/11/>



Discussion: When the scientists put more Febreze they saw the worms burrowing time increased. When the scientists put 100% solution the worms would get tangled up. The reason this could of happened was because Febreze has skin irritating chemicals. What the scientists could of done better is to expose the worm to the paper towel more because the worms were escaping from the paper towel.

Results: When 100% febreze was being compared to the control it was considered to be statistically significant. For the 50% febreze compared to the control it was proven to not be statistically significant. Overall the 10% febreze compared to the control is was proven to not be statistically significant.

