



Where There's a Weed, There's a Worm!!

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Abstract:

The scientists tested the affect of *Roundup* weedkiller on earthworms' burrowing time. Earthworms were used because of the similarity in their anatomy to that of a human. Roundup significantly slowed the burrowing time of an earthworm due to the chemical glyphosate, which can also have negative on humans.

Introduction:

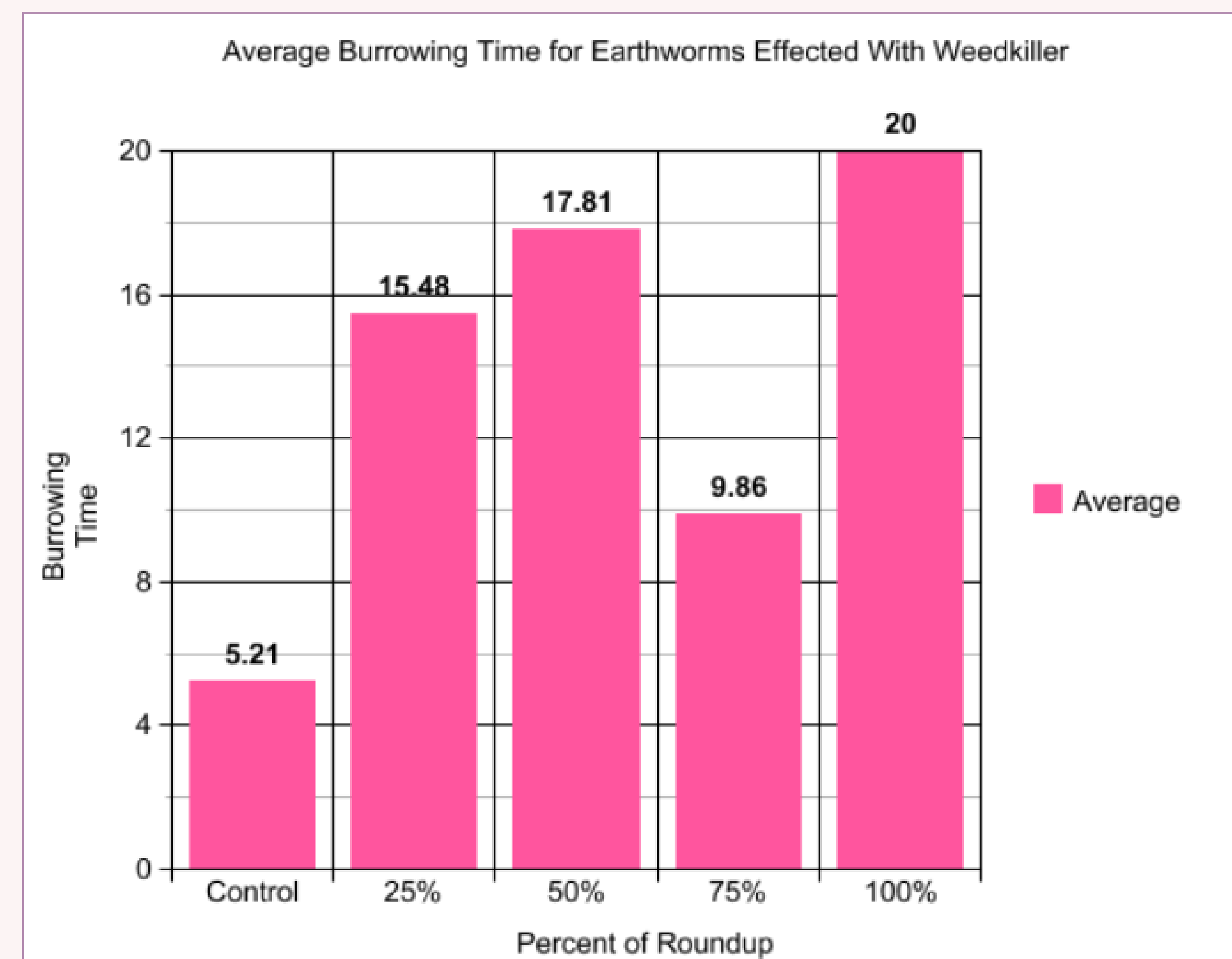
Roundup weedkiller kills weeds, but the active ingredient glyphosate may be causing health issues to humans. Scientists wanted to see how weed killer affects a earthworm's burrowing time.. There has been many statements accusing Roundup weedkiller for causing different diseases and injurys. The scientists wanted to conduct this experiment to observe if these accusations had any merit.

Materials and Methods:

First, the scientist put soil into a solo cup. Then, the scientists put 3 worms into the cup as a control group. Then, they timed how long it took for the earthworms to burrow. After that, the scientists put the worms in an exposure chamber with filter paper for 2 minutes. They tested 100% roundup, 75% roundup, 50% roundup, and 25% roundup in the exposure chamber. Then, they recorded the the burrowing time on a sheet of paper.

Results:

The weedkiller has ended up to have an impact on the earthworms burrowing time. The more weed killer exposed to the earthworms, the longer it takes for the earthworms to move. The worms were put into an exposure chamber for 3 minutes for each amount of weedkiller and then placed into a regular container of soil. Then the burrowing time was recorded. If an earthworm is exposed to Roundup Weed killer, then it will take a longer time for the worms to burrow because their nervous system is affected by the weed killer



	fx % of Roundup					
	A	B	C	D	E	F
1	% of Roundup	Trial one	Trail two	Trial three		Average
2	100%	20+	20+	20+		20+
3						
4	75%	7:13:26	10:42:09	11:42:38		9.84
5						
6	50%	13:27:01	20+	20+		17.81
7						
8	25%	6:33:08	19:55:39	20+ almost burowed		15.48
9						
10	Control	5:09:26	4:43:30	5:47:38		5.21
11						
12						



Discussion:

The scientists data was all statistically significant except for the concentration 25%. We probably made a wrong dilution for 25% thats why the burrowing time differs from the rest. With our results we can say that Roundup Weed killer does have a negative effect on the burrowing time of earthworms. Instead of using weed killers, a safe eco-friendly alternative would be no-till cover crops.

Resources:

- <https://www.healthline.com/nutrition/roundup-glyphosate-and-health>
- <https://www.weedkillercrisis.com/top-ics/crazy-facts-about-roundup-weedkiller/>

