

Radish seed lab report

[Food & Diet](#), [Coffee](#)



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Radish Seed Lab Report Problem: What caffeinated drink (monster, coffee, or green tea) will the radish seeds grow in the best form over a nine day period? Hypothesis: If the radish seeds put in the dish with the drink Monster, then the seeds will grow faster because of the amount of energy given to them. The amount of caffeine in Coffee is much greater than the amount in green tea and Monster, but neither coffee nor green tea contains any extra type of an energy booster like the Monster does. Design: This experiment has a manipulative variable of caffeinated drinks with the range set from the energy drink, Monster, regular Premium Dark Roast coffee, and finally unsweetened Green Tea. We set our control as something that the plant may usually get to drink, water. Throughout this experiment, we didn't want to make the environment for the plant change, so as constants, we used the same temperature (70°F), the exact same amount of light (about 10-11 hours), and we had the same amount of liquid for each set of seeds (5mL per day). Materials: * 4 petri dishes * 4 regular brand paper towels * 20 seeds * 60mL of Monster, Premium Dark Roast coffee, Green Tea, and water * 4 syringes * Sharpie to label the petri dishes * Ruler, paper, and pen for your observations * Goggles and an apron are for safety, recommended but not required Procedure: A: Manipulated Variable Procedure: 1. Label all petri dishes 2. Lay paper towels down on a flat surface 3. Put 5mL of each drink on a different paper towel 4. Fold the paper towels until they fit in the petri dish, and set each paper towel in a different dish. 5. Place 5 radish seeds in each petri dish on top of the towel 6. Fold the towel over the seeds and put the top of the petri dish on 7. Let all dishes sit in a place where they all get a constant amount of light, and the same temperature 8. Let sit for 24 hours,

then come back and measure the length of the radish germination, and record. 9. Add 5mL of the drink to the corresponding dish 10. Repeat step eight and nine for nine days. 11. On the ninth day, record your final measurement of the radish germination. 12. Dispose of properly

B: Control Procedure:

1. Label the petri dish " Water"
2. Lay the paper towel on a flat surface and cover in 5mL of water
3. Fold the paper towel until it will fit into the dish
4. Lay the seed on the towel, and fold the towel over them
5. Let all dishes sit in a place where they all get a constant amount of light, and the same temperature
6. Let sit for 24 hours, then come back and measure the length of the radish germination, and record.
7. Add 5mL of water to the dish
8. Repeat step six and seven for nine days.
9. On the ninth day, record your final measurement of the radish germination.
10. Dispose of properly

Data:

Average Measurement of Radish Germination in Different Caffeinated Drinks (Coffee, Monster, or Green Tea) Over a Nine Day Period

Liquids	Time (days)	Height (cm)
Coffee	5 Seed	9 0. 1cm
Green Tea	5 Seed	9 2. 8cm
Monster	5 Seed	9 Seed
Water (control)	5 1cm	9 10. 1cm

Individual Measurement of Radish Germination in Different Caffeinated Drinks (Coffee, Monster, or Green Tea) Over a Nine Day Period

Drinks	Days	Seed Germination 1 Height (cm)	Seed Germination 2 Height (cm)	Seed Germination 3 Height (cm)	Seed Germination 4 Height (cm)	Seed Germination 5 Height (cm)
Coffee	1-5	0	0	0	0	0
	6-9	. 5	0	0	0	0
Green Tea	1-5	0	0	0	0	0
	6-9	3	5	6	0	0
Monster	1-5	0	0	0	0	0
	6-9	0	0	0	0	0
Water (control)	1-5	5	0	0	0	0
	6-9	0	0	0	0	0

6-9 | 15 | 11 | 9.5 | 9 | 6 | Analysis: Conclusion: The hypothesis was not supported by the data.