

Chia Seed Experiment

Introduction

Chia seeds come from the chia plant, which is part of the mint family. They are native to Mexico and Guatemala. Chia seeds produce a gel that protects the seed and takes nutrients from the soil. The gel can also stop other seeds from growing nearby.

Research Question

Why do chia seeds get slimy and clump up when they are wet?

Objective

Test how chia seeds grow with and without the gel surrounding them.



You will need:

- 3-6 small dishes
- 3 tsp of chia seeds
- Bleach (**only use with an adult present**)
- A plate with at least 3-6 dividers
- Soil
- Optional: some other seeds



Conclusion

Which group of chia seeds grew the best?

Do you think the gel helped them grow?

If you added other seeds, did they grow?

Which group did they grow with the best?

Set up



Steps

1. In each of the three bowls, add 1 teaspoon of chia seeds and $\frac{1}{4}$ cup of water. Ask an adult to add $\frac{1}{2}$ mL of bleach to one bowl, and 1 mL of bleach to another bowl with a pipette or eye dropper.
2. If you are also using other seeds, prepare two of each of the bowls, and add the other seeds to one with no bleach, $\frac{1}{2}$ mL, and 1 mL.
3. Label the bowls and leave them in the refrigerator overnight.
4. The next day, take the bowls out of the refrigerator. Examine which bowls have the most clumps. Using separate spoons for the bowls with no bleach, $\frac{1}{2}$ mL, or 1 mL, scoop some of the chia seeds into one divided section of the plate. Be sure to mark which is which! You can try putting soil in the sections before the seeds and see if they grow better.
5. Allow the seeds 2-4 days to grow. Examine the growth. Which combination of seeds grew the best?

References

<https://www.britannica.com/plant/chia>
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