Height of Corn

Abstract

This project was made to see how the salt levels in water affect the growth in plants by, measuring them in inches. The purpose for this experiment was to see if plants would grow faster or slower, depending on the salt levels in the water so I could grow plants faster. The way I would do it is setting up 3 pots and putting corn in each pot then water each pot, one with no salt, one with ½ Tsp of salt and one with 1 Tsp of salt. My hypothesis was that the salt from the water would sink into the dirt and absorb the water, drying out the plant. It would end up being the opposite as the ½ Tsp plant ended up growing the most with 1.4 inches.

Introduction

The purpose of this experiment will be to see if the height of corn can be affect by the salt amounts in the water. I became interested in this topic when I was trying to think of a science fair subject and then the teacher suggested a biology subject. When the project is finished I will not only be able to see what will make plants grow faster but I can try to allow or regulate salt in the water of my plants.

Research Question

My question has 2 variables, a independent variable and a dependent variable. My independent variable is the amount of salt I will put in the cups I am watering my plants with, while my dependent variable is the height of the plants in which I will be measuring in inches.

Background Research

Something you need to take into consideration when watering corn is that they have very weak roots that can be stressed by arbitrarily watering it. That being said it is suggested that you water corn in one session instead of watering it in small amounts every day. Although do not over water your corn as it could shorten the amount of growth your corn achieves. There is also something that you should take into consideration about salt, salt can absorb water leading to dehydration of the plant.

Hypothesis

My personal hypothesis is that the non-salted plants will grow higher as the salt in the dirt will absorb the water, dehydrating the salted plant.

Materials

My materials for this experiment will be.

- 3 Pots
- 1 Tsp measuring cup
- ½ Tsp measuring cup
- 1 cup
- Salt
- Soil
- Corn seeds
- Water

Procedures

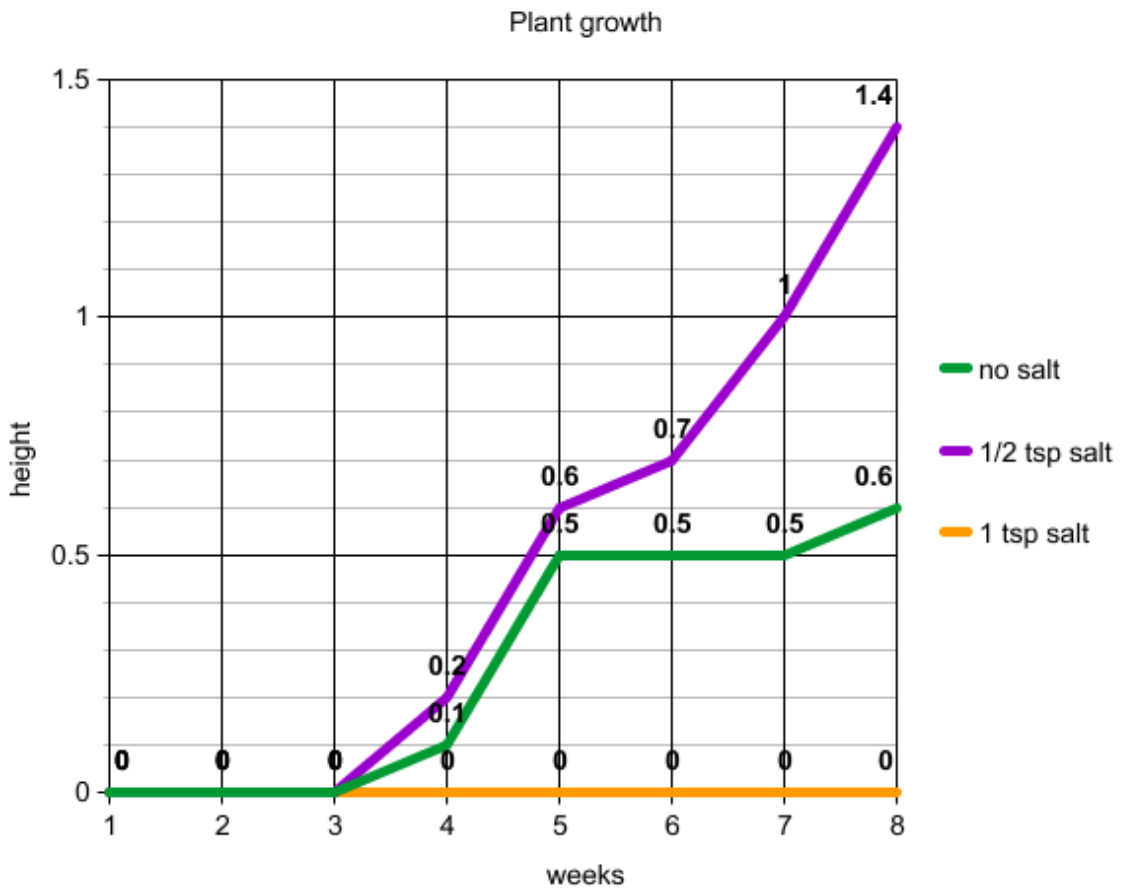
My Procedures for this experiment will be:

- Put soil in 3 pots
- Put corn seeds in the 3 pots
- Water the seeds every 2 days with 1 cup of water, one with no salt, one with 1 Tsp of salt, and one with ½ Tsp of salt

Data Table

No salt	½ Tsp salt	1 Tsp salt
0	0	0
0	0	0
0	0	0
0.1	0.2	0
0.5	0.6	0
0.5	0.7	0
0.5	1	0
0.6	1.4	0

Graph


Plant growth
1.5
1
0.5
0
height
1
2
3
4
5
6
7
8
weeks
1.4
1
0.7
0.6
0.6
0.5
0.5
0.5
0.2
0.1
0
0
0
0
0
0
0
0
no salt
1/2 tsp salt
1 tsp salt

Results

The results of this experiment are that corn plants with ½ Tsp of salt grow faster than Non salted plants. The corn plants were water every 2 days with varying amount of salt in the water. The height was mesured in inches from week 1-8. The Results of the experiment are: (1 Tsp not included because it never sprouted) week 1-3 No plant shows sign of sprouting, week 4 Non salted plant grew 0.1 inches while the ½ tsp salted plant grew 0.2 inches. Week 5, non-salted plant grew to 0.5 inches and would remain that way until week 8, ½ tsp plant grew to 0.6 inches. Week 6, ½ tsp plant grew to 0.7 inches. Week 7 ½ tsp plant grew to 1 inch. Week 8, non-salted plant grew to 0.6 inches while ½ tsp plant grew to 1.4 inches.

conclusion

My hypothesis was that the salt would bury in the dirt and absorb future water, drying out the plant. If I would ever do this experiment again, I would place the corn on my right porch not my left as the right got more sunlight. My findings could be used to improve my plant growth in the future to boost plant growth.

References

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- UrbanDictionary.com
- Science.com
- Peppershomeandgarden.com
- usda.gov