

Does the soil we use affect our plant life?

Lillian Woodward, Period: 4



Introduction- Why Soil?

- Which soil is the best?
- “Does the type of dirt we have affect our plant life?”
- I have two sources from college clubs.
 - Oregon State University - Source #1: [Source #1](#)
 - University of Illinois Urbana-Champaign - Source #2: [Source #2](#)

Hypothesis

If I use potting mix with fertilizer, then it will grow the most, because in the college websites I found it shows that it has water holding polymers that absorb water and make it available to plant the plant roots.

Variables

Independent Variable

- The dirt

Dependent Variable

- The size of the plant

3 Constants

- Same amount of water a week
- Same size pot
- Same plant

Groups

Experimental Group

- Sandy dirt
- Potting mix with fertilizer
- Organic soil with fertilizer

Control Group

- Top soil

Materials

- Same pot
- Same plant
- Measuring cup
- Tap water
- Shovel
- Paper and pencil for recording observations.

Procedures

1. Get the equipment that shows on slide 8
2. Go to the store and buy the same plant with same height
3. Put the plants in their own pot that is the same size
4. Put them in the same location with a even amount of sunlight, I prefer a window.
5. Then water them with 1 cup of water every Monday,
6. Record results every Wednesday on a graph
7. At the end of the five weeks decide according to the data which soil is the best for plant growth.

Pictures of the Experiment

Beginning Results

Sandy:



Potting mix with fertilizer:



Top soil:



Organic with fertilizer:



Pictures of the Experiment

End results

Sandy:



Potting mix with fertilizer:



Top soil:



Organic with fertilizer:



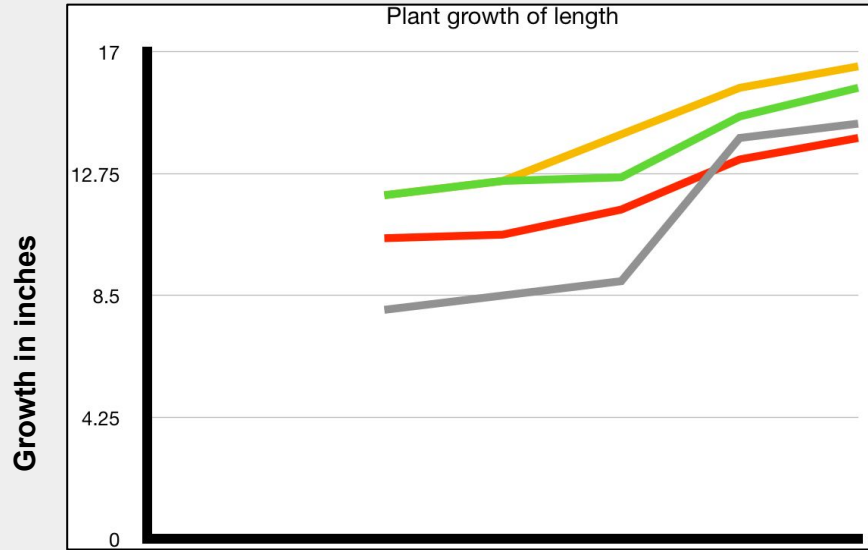
Measurements for the Experiment

Height

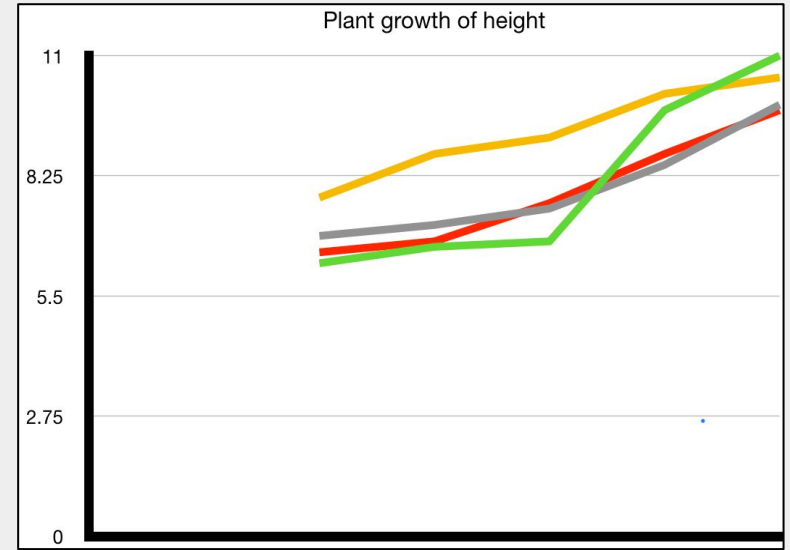
Length

	Top soil	Sandy	Potting mix with fertilizer	Organic mix with fertilizer		Top soil	Sandy	Potting mix with fertilizer	Organic mix with fertilizer
Week 1	6 1/4	6 7/8	7 3/4	6 1/2	Week 1	12	8	12	10 1/2
Week 2	6 5/8	7 1/8	8 3/4	6 3/4	Week 2	12 1/2	8 1/2	12 1/2	10 5/8
Week 3	6 3/4	7 1/2	9 1/8	7 5/8	Week 3	12 5/8	9	14 1/8	11 1/2
Week 4	9 3/4	8 1/2	10 1/8	8 3/4	Week 4	14 3/4	14	15 3/4	13 1/4
Week 5	11	9 7/8	10 1/2	9 3/4	Week 5	15 3/4	14 1/2	16 1/2	14

Graphs, Data, and Results



Weeks 1 - 5



Weeks 1 - 5

Graph Key

Top soil

Sandy

Potting mix w/fertilizer

Organic w/fertilizer

Analyze Data- Conclusion

- In conclusion my hypothesis was partially correct in that the potting mix with fertilizer was the biggest in length at 16 ½”, but the topsoil was the largest in height at 11”.
- So you can choose either rich soil from outside or you can go to the store and get potting mix with fertilizer. This will help your plants grow the best.
- They both have nutrients for the plant and moist soil for the plant to grow its roots.
- I learned a lot about biology and the growth of plants through this experiment.