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① UC Soil or Rose Canyon Soil?

Recently our UC Canyon underwent a restoration of the native plants by taking out the eucalyptus trees. Since we were curious to see how much the UC soil has recovered from the restoration, we compared the healthy soil from the Rose Canyon to the UC canyon soil. In order to research, we used mungbean seeds and planted them into separate soil pots, each day we measured the height to see the progress. Our hypothesis, being that the Rose Canyon soil would grow faster than the UC soil by a few inches. As a result our hypothesis was well supported by our evidence. The Rose Canyon Soil grew a few inches longer than the UC Soil. Although the Rose Canyon soil was longer than the UC soil, it showed recovery of the UC soil.



② Our Purpose

Through this project we studied the recovery time of a canyon that underwent a restoration. Botkin Textbook Chapter 10, "Ecological Restoration", used to identify the stages of recovery and the effects. To conduct our studies we took mungbean seeds and planted them in separate pots of soil. We predicted that the Rose Canyon soil would grow faster than the UC soil but they would grow similarly, concluding that the UC soil is recovering but not fully recovered.

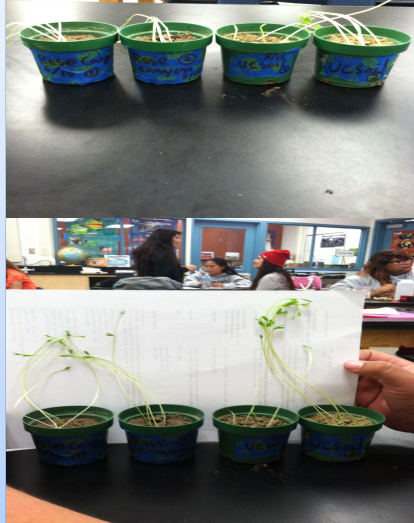
③ Procedures

Materials:

- UC Soil
- Rose Canyon Soil
- 4 Pots
- Shovel
- Spoon
- water
- water dropper
- grow lamp

Directions:

1. Use shovel and put soil from each canyon into the ziplock.
2. Label each pot and put soil into labeled pots.
3. Make 2.5 cm hole in each soil and plant 5 seeds into the whole.
4. Repeat step 3 for the rest of the pots.
5. Rest the pots under the grow lamp
6. Water the plants with water dropper everyday.
7. Repeat step 6 for five days.



④ Results

Soil Type	Day 1	Day 2	Day 3	Day 4	Day 5
Rose Canyon 1	N/A	N/A	8mm	2.5cm	16.4cm
Rose Canyon 2	N/A	N/A	5mm	3.5cm	17.5cm
UC Canyon 1	N/A	N/A	N/A	1	12.5cm
UC Canyon 2	N/A	N/A	7mm	3.5cm	15.8cm

⑤ Our Discoveries

As a result, the Rose Canyon soil grew faster and longer by a few centimeters. By examining the results of the two soils, our hypothesis can be supported. Through this research it is clear that the restoration project is truly showing a significant effect to the UC Canyon. Our group can conclude that the UC Canyon is slowly but surely recovering to its native state. For further research, one could examine the soil recovery every single day till both canyons reach to the same rate of growth. By examining the soil through this further research we can conclude the actual recovery time it takes for a restored canyon to return to its natural state.