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The Life of Small Antiques

### Question

How does the amount of dirt affect the number and size of the burrows that they make?

## **Hypothesis**

If there are different amounts of dirt in each ant jar, then the ant jar with the most dirt will have the most amount of burrows.

### **Materials**

- 3 cereal containers
- 12 cups of potting soil
- 42 Red and Black Harvester Ants
- Push pins
- Ant Chow Food

## Procedure

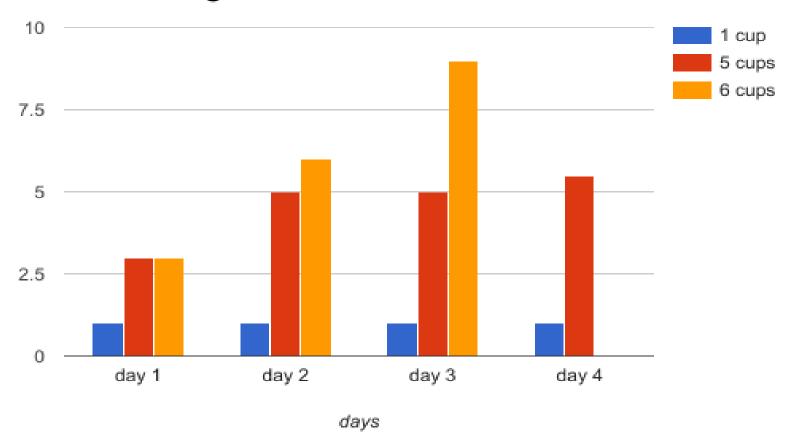
- 1. Gather all materials
- 2. Then use push pins to create little holes in the lid of the container
- 3. Put 1 cup of potting soil in the 1st container
- 4. put 5 cups of potting soil in the 2nd container
- 5. put 6 cups of potting soil in the 3rd container
- 6. Put at least 10-15 ants in each of the three containers.
- 7. Feed them every week



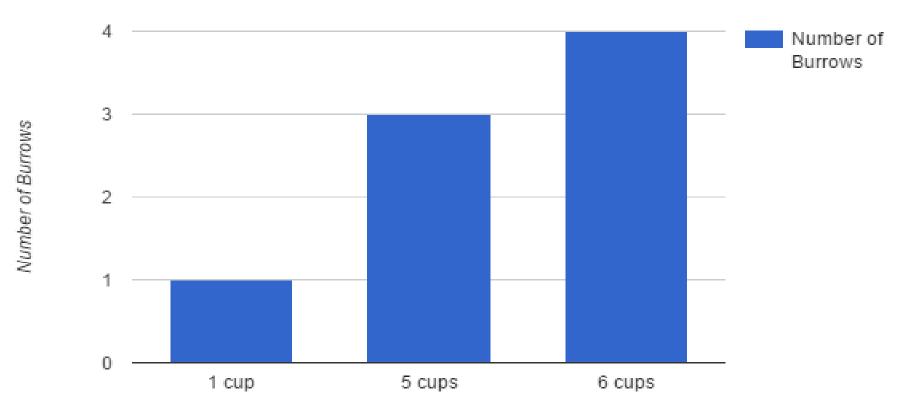




#### **Burrow Length**



#### Number of Burrows



### Results

On day 1 of our observations, the 1-cup container had a burrow that was 1inch long, and the 6-cup container had a burrow that were 3 inches long. On Day 2, the 1-cup container's burrow length remained the same. The 5cup container had a burrow 5 inches long. The 6-cup container's burrow grew to 6 inches. Next, on Day 3, the 1-cup container and the 5-cup container's burrow length remained the same of 1 inch; whereas the 6cup container grew up to a length of 9 inches. Lastly, on Day 4, the 1-cup container's burrow length remained the same of 1 inch. The 5-cup container's burrow length grew to 5.5 inches. Unfortunately, we could not measure the burrow length for the 6-cup container because someone (not in our group) accidently pounded on the top of the container causing the burrows to break down and trap the ants in them.

## Conclusion

Our hypothesis stated that "if there are different amounts of dirt in each ant jar, then the ant jar with the most dirt will have the most amount of burrows." Our hypothesis was correct, the cereal container with 6 cups of dirt had the most amount of burrows, and had the longest burrow. The reason this happened is because they had more space and dirt to work with, meaning that they could exploit their environment the most.

# Bibliography

<a href="http://www.finegardening.com/ants-arent-your-enemy">http://www.finegardening.com/ants-arent-your-enemy</a>





