

The Effect of Greywater on plant growth

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This study is related to water pollution and water conservation. This is important because we are constantly creating greywater and to know how it affects our plant life is crucial to cutting down on pollution. Previous studies have shown that it has an effect on plant life even if it wasn't major, the plants still didn't grow as well as a plant grown with fresh water. The objective to this study was to figure out if the greywater pollution we create in our daily life is harmful to the plant life that sustains us. My hypothesis was that the plants will grow worse when they are watered with greywater compared to the plants grown with tap water. This was researched by growing 25 spring radish seeds each in its own plastic cup. I split them into 5 groups, the first group was watered with tap water. The second group was watered with 1/4 greywater to 3/4 tap water mixture. the third group was watered with 2/4 greywater to 2/4 tap water. The fourth group was watered with 3/4 greywater to 1/4 tap water mixture. Finally the fifth group was watered with 4/4 greywater and no tap water. The average data that I got was 6.8 centimeters for the plants grown with tap water 8.4 centimeters when watered with a 1/4 grey water mixture 5.3 centimeters for the 1/2 greywater mixture 3/4 greywater mixture was 3.1 centimeters 4/4 greywater grew an average of 0.7 centimeters. My data suggests the more greywater a plant is watered with the less healthy the plant will grow even with a possibility of death when compared to a plant grown with fresh water.

Category

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1. As a part of this research project, the student directly handled, manipulated, or interacted with (check all that apply):
 - human participants
 - potentially hazardous biological agents
 - vertebrate animals
 - microorganisms
 - rDNA
 - tissue
2. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only.
 - yes
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3. I/We worked or used equipment in a regulated research institution or industrial setting.
 - yes
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4. This project is a continuation of previous research.
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5. My display board includes non-published photographs/visual depictions of humans (other than myself)
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