Getting the Oil Out of Your Soil (The Study of Phytoremediation of Oil)

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Around 15,000 tons of oil is spilled every year. (ITOP 2023) Why is oil bad? How do we currently remove oil? Previous studies show that grasses can be used to at the very least lower the oil content of the soil.The objective of this study is to see if grasses are able to use phytoremediation to remove or lower the content of oil in soil. My hypothesis was that If you grow Timothy grass in soil contaminated with motor oil then the Timothy grass will reduce the oil content of the soil. To research this I grew 1 bucket of timothy grass in a 2 parts soil to 1 part sawdust mix that has been contaminated with motor oil. I also make 1 more bucket of just the soil and sawdust mix that has been contaminated with motor oil. I will let both pots grow by a window for a week . I will water them twice a day by spritzing them with a spray bottle I will do 10 sprays per bin each time. Once the week is over with I will test the oil level in the soil. My data suggests that you can use Timothy grass to reduce the levels of oil in soil.

Category
Pick one only—
Mark an "X"
in box at right

Animal Sciences	☐
Behavioral and Social Sciences	☐
Biochemistry	☐
Biomedical and Health Sciences	☐
Biomedical Engineering	☐
Cellular & Molecular Biology	☐
Chemistry	☐
Computational Biology and Bioinformatics	☐
Earth & Environmental Sciences	☒
Embedded Systems	☐
Energy: Sustainable Materials and Design	☐
Engineering Technology: Statics and Dynamics	☐
Environmental Engineering	☐
Materials Science	☐
Mathematics	☐
Microbiology	☐
Physics and Astronomy	☐
Plant Sciences	☐
Robotics & Intelligent Machines	☐
Systems Software	☐
Technology Enhances the Arts	☐
Translational Medical Science	☐

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 ☐ no

3. I/We worked or used equipment in a regulated research institution or industrial setting.
   ☐ yes ☑ no

4. This project is a continuation of previous research.
   ☐ yes ☑ no

5. My display board includes non-published photographs/visual depictions of humans (other than myself)
   ☐ yes ☑ no

6. I/We hereby certify that the abstract and responses to the above statements are correct and properly reflect my/our own work.
   ☑ yes ☐ no

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