

OFFICIAL ABSTRACT and CERTIFICATION

Heavy Metal Pollution in Nassau County: Are Street Trees Helping Keep Streets Clean?

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In recent years, the role of urban trees in improving air quality has received increasing attention, as trees have relatively higher capacity of metal accumulation compared with other types of vegetation. Since different plant species differ greatly in their sensitivity to pollutants, it is necessary to test a variety of trees to determine which species are the best at taking in pollutants; since there is no simple or effective way of getting rid of high lead concentrations. In this project, I investigated which tree species could potentially help absorb lead contaminants from the soil and reduce the lead levels. The trees presented two benefits in this project: Not only do certain species help to reduce lead in soils by up taking lead, they also provide environmental, social and economic benefits. Planting a new tree in the contaminated soil on a residential property is significantly less expensive than either cementing or trying to cover up the contaminated soil.

Category

Pick one only — mark an "X" in box at right

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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. I/we worked or used equipment in a regulated research institution or industrial setting: ☒ Yes ☐ No
3. This project is a continuation of previous research. ☐ Yes ☒ No
4. My display board includes non-published photographs/visual depictions of humans (other than myself): ☐ Yes ☒ No
5. This abstract describes only procedures performed by me/us, reflects my/our own independent research, and represents one year's work only: ☒ 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

This stamp or embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Scientific Review Committee.

