Blooming Algae: The Effect Of Organic Fertilizer On Algae Growth

Mya Saunders, Rogan Kelly

Greenwich Central School, Greenwich, NY USA

This study is related to fertilizer runoff and the effect it has on algae. This is important because aquatic life revolves around algae. Without algae, aquatic life would not exist considering it is the base of the food chain. Algae is responsible for fifty percent of the air you breathe in one breath. Previous studies have shown that compost tea is an organic substance that contains natural chemicals to improve plant growth. Compost tea adds beneficial microbes to foliage. The fertilizer helps plants grow both faster and stronger. The objective of this study was to be able to control algae growth and its population. We need to stop algae from entering our local waterways, creating algae blooms. Our hypothesis objective was that the more compost tea added to the water samples and algae seeds, the more algae will grow. Each water sample will contain one quart of pond water. The designated amount of compost tea will be added to each sample, along with the algae seeds. We will let the algae grow and produce for three weeks. Our data suggests we may need to modify our experiment to keep the algae growing. **Category** Pick one only— Mark an "X" in box at right

Animal Sciences	
Behavioral & Social Sciences	
Biochemistry	
Biomedical & 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	
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

FOR ISEF OFFICIAL USE ONLY