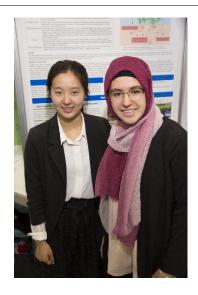




CWSF 2019 - Fredericton, New Brunswick



Sarah Choi, Neelah Hassanzadeh

BSFL Frass: Improving Plant Health While Minimizing Environmental Impact

Challenge: Environment

Category: Senior

Region: Fraser Valley City: Langley, BC

School: Mountain Secondary

Abstract: Our project studies how Black Soldier Fly larvae frass can be used as an

effective, sustainable, and inexpensive organic fertilizer. This method would

address the problem of chemical fertilizers contributing to negative environment impact, such as waterway contamination and greenhouse gas emissions. The study shows how frass can increase plant growth, thereby helping alleviate problems with climate change and the global food crisis.

Biographies

Sarah - My name is Sarah Choi, and I am a grade 11 student at R.E. Mountain Secondary in Langley, BC. My inspiration for my project was to investigate how fertilizing methods can be improved to promote plant health while not contributing to groundwater contamination and greenhouse gas emissions, which cause negative environmental impacts. I used experimental data to figure out that Black Soldier Fly larvae frass is not just an effective feed for livestock, but also for defending against common plant pathogens due to its beneficial nutrients. BSFL frass contains important nutrients for plants to grow robustly, including growth hormones, nitrifying bac... Neelah - Neelah Hassanzadeh is a grade 11 student who lives in Langley, British Columbia. Neelah hopes to attend university after graduating high school in the sciences. Her hobbies include tennis, baking and spending time with her family. With the help of her friend, Sarah Choi, they came up with their project after being introduced to Black Soldier Fly larvae and were amazed by the beneficial properties they possess. After completing this lab, Neelah would like to investigate more about the other beneficial properties of Black Soldier Fly larvae and investigate more about them. Neelah hopes to gain more experience in different fields of science to t...

Awards	Value
Excellence Award - Senior - Silver Medal	
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	\$2 500
Senior Silver Medallist - \$2500 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of New Brunswick Canada-Wide Science Fair Scholarship	\$2 500
Silver Medallist - \$2500 Entrance Scholarship	
Sponsor: University of New Brunswick	
University of Ottawa Entrance Scholarship	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: Western University	
Total	\$11 000



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