

CWSF 2011 - Toronto, Ontario



Varsha Jayasankar

Phytoremediation: Removing Lead Using Plants

Challenge: Environment

Category: Intermediate

Region: Niagara

City: St. Catharines, ON

School: Sir Winston Churchill

Abstract: This project explored whether common household plants can be used as an accumulator of lead. Plants from the Petunioideae sub-family were (Calibrachoa, Calitunia and Petunia) tested if they could accumulate lead. Calibrachoa accumulated the highest concentrations of lead. Traces of lead were also detected in the total proteins. It was discovered that Calibrachoa is a lead hyperaccumulator, and it absorbs lead possibly through metal-binding proteins.

Biography

Varsha Jayasankar is a grade 9 student at Sir Winston Churchill Secondary School in St. Catharines. She was born in the United States, before moving to Canada in 2002. She is a proud CIA (Canadian-Indian-American). Her major interest is our environment, the central theme of her science fair projects since grade 6. She has won many accolades and awards in science fairs, including bronze at the CWSF 2010. Varsha's efforts helped her win the Elementary Age Environmentalist award in the Niagara region in 2009. She is in numerous philanthropic activities such as fundraising to facilitate eye surgeries to the less-fortunate in India and donating to orphanages. In 2008, she was a finalist for the St. Catharines Standard's "Great Kids" Award. Music is also one of Varsha's interests, as she is in Grade 8 piano and has started violin. She is an avid swimmer, and is a member of the St. Catharines Piranha's swim team. A member of Sir Winston Churchill's Gymnastics team, Varsha also maintains a 98% average. She is also a member of the school yearbook and has written articles for the school newspaper and magazine. After high school, Varsha plans to attend university, pursuing a degree in science.

Awards

Value

Challenge Award - Environment - Intermediate Sponsor: Encana Corporation	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Total	\$3 450