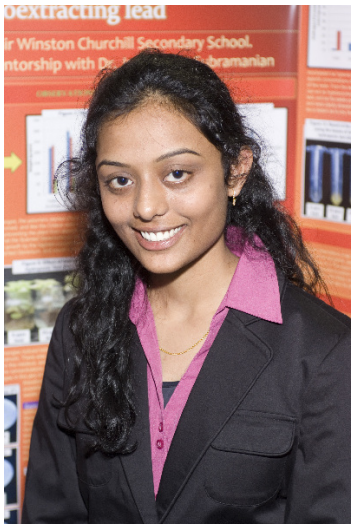
CWSF 2009 - Winnipeg, Manitoba



Bindu Kovvuru

Phytoremediation: using Geraniums as hyperaccumulators in phytoextracting lead

Division: Physical & Mathematical Sciences / Environmental Innovation
Category: Senior
Region: Niagara
City: St. Catharines, ON
School: Sir Winston Churchill

Abstract: Traditional methods of removing lead from soil and water are expensive, laborious and environmentally disruptive. As an alternative method, this projected investigated if Scented Geranium could be used in phytoextracting lead. To address this question, I tested Scented Geranium in three substrates with lead nitrate and compared its growth to Coleus and Petunia. Additional tests were conducted to confirm the uptake of lead.

Biography

I am a grade 12 student at Sir Winston Churchill Secondary School in St. Catharines, ON. I focus on science and mathematics academically, and I participate in a wide range of extracurricular activities. Some of my after school activities include peer tutoring, playing in the school's orchestra, and being involved with recycling. I am also an editor for my school's yearbook committee, and volunteer at the Niagara General Hospital and the Niagara Children's Centre every week. While balancing my extra curricular activities and school work, I have also taken piano and Kumon lessons, which recently earned me a job. I have been involved with the Science Fair, researching at the University of Guelph for the past three years. In addition to my involvement with the University of Guelph, I also participate in Math Contests and challenges held by the University of Waterloo. I want to pursue a career in the field of Science and continue research.

Awards	Value
Canadian Stockholm Junior Water Prize Sponsor: Canadian WEF Member Associations, the Canadian Water and Wastewater Association, and Jacobs	$300
Honourable Mention - Environmental Innovation - Senior Sponsor: EnviroExpo, Presented by VIA Rail Canada	$100
Total	$400