

## CWSF 2011 - Toronto, Ontario



### Brittney Allen

#### Chill Out! Abiotic Stress Tolerance in Plants

**Challenge:** Discovery

**Category:** Senior

**Region:** Fundy

**City:** Saint John , NB

**School:** St. Malachy's Memorial High School

**Abstract:** This experiment evaluated the effectiveness of antioxidant biostimulant foliar sprays on improving growth and abiotic stress tolerance of lettuce germinants. Foliar sprays were applied eleven days post germination for 4 weeks. Foliar spray combination of Ascophyllum nodosum extract and Vaccinium angustifolium protected plants from chilling and reduced abiotic stress. Antioxidant sprays were less effective at improving abiotic stress tolerance, although improved growth results were observed.

#### Biography

Brittney Allen, a grade 11 high honors student, is enrolled in the French Immersion program at Saint Malachy's Memorial High School in Saint John New Brunswick. Also a CWSF finalist in 2010, she has successfully competed in numerous district and regional science fairs, and was awarded the Promising Student Award in Biotechnology at the NB Fundy Regional Science Fair (2006). A recipient of the Saint Malachy's Memorial High School Coffee Award for academic achievement and outstanding contribution to school life, she is also a member of her high school girls Field Hockey team, Track & Field team and she also competed with the Cheerleading team winning the N.B provincial title in 2009. Brittney is also an accomplished competitive dancer, competing and training nationally and internationally. Brittney plans to pursue a career in medicine.

#### Awards

#### Value

Challenge Award - Discovery - Senior Sponsor: Youth Science Canada	\$1 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$700
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
<b>Total</b>	<b>\$10 200</b>