

# CWSF 2012 - Charlottetown, Prince Edward Island



## Brittney Allen

### I'm Lichen It! Biotic de-Stress Foliar Spray

**Challenge:** Discovery

**Category:** Senior

**Region:** Fundy

**City:** Saint John , NB

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

**Abstract:** Lichen extract foliar sprays applied to lettuce germinants suppressed fungal pathogen growth (*Botrytis cinerea*), resulting in enhanced growth and increased biotic stress response. A combination spray (*Ascophyllum nodosum* seaweed and *Usnea cavernosa* lichen extracts) promoted enhanced biotic stress response and eliminated pathogen growth. In vitro growth inhibition of the fungal pathogen by lichen extracts of *Evernia mesomorpha*, *Cladonia rangiferina* and *Usnea Cavernosa* was also confirmed.

#### Biography

Brittney Allen is a grade 12 high honors student enrolled in the French Immersion program at Saint Malachy's Memorial High School in Saint John New Brunswick. A past CWSF finalist in both 2010 and 2011, she has also successfully competed in numerous district and regional science fairs. Brittney was a member of Team Canada MILSET 2011, participating as an ambassador for Canada at this international science event held in Bratislava Slovakia. She is a recipient of the Saint Malachy's Memorial High School Coffee Award for academic achievement and outstanding contribution to school life, Team Captain of her girls Field Hockey team and Envirothon Team, a member of the Track & Field team and she competed with the Cheerleading team winning the N.B provincial title in 2009. Brittney is an accomplished competitive dancer, competing and training nationally and internationally, and she choreographed the MILSET Team Canada closing ceremony presentation. Brittney plans to complete a Bachelor of Science degree and pursue a career in medicine.

#### Awards

#### Value

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
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$9 200</b>