

# CWSF 2011 - Toronto, Ontario



## Jessie MacAlpine

### Suppressing weed germination using allelopathy of *Alliaria petiolata*

**Challenge:** Innovation

**Category:** Intermediate

**Region:** London District

**City:** Woodstock, ON

**School:** Huron Park S.S.

**Abstract:** *Alliaria petiolata* is a successful invasive species in North America because it produces an allelochemical which inhibits germination. This experiment investigated if an extract of this chemical could be used to inhibit the germination of weeds in standing crops. After several pilot experiments, it was discovered that a 500g/L extract was able to significantly reduce seedling total length, root length and germination.

#### Biography

Jessie MacAlpine is a grade ten student who lives in Woodstock, Ontario. She is a very active student and enjoys swimming, cross-country, track-and-field, cross-country skiing, volleyball, soccer and step dancing. Jessie loves music and plays the flute, piano and fiddle. As part of the PRO (People Reaching Out) club at her high school, Jessie and fellow students work with Free the Children to provide children with the education they deserve. She believes strongly in providing aid to developing nations and organizes and participates in many of the events put on by PRO to raise money and awareness. Jessie has also always had a keen interest in the environment and strives to help end global climate change. In the future she aspires to be a marine biologist focusing on ending ocean acidification.

#### Awards

#### Value

Australian National Youth Science Forum Award	\$2 500
Statistical Society of Canada and Biostatistics Section Award Sponsor: Statistical Society of Canada and Biostatistics Section	\$750
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$1 500
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
<b>Total</b>	<b>\$8 750</b>