

# CWSF 2012 - Charlottetown, Prince Edward Island



## Kate Berger, Jasveen Brar

### Environmental Distribution of Giardia and Cryptosporidium

**Challenge:** Environment

**Category:** Senior

**Region:** Kiwanis Southeast Alberta

**City:** Medicine Hat, AB, Redcliff, AB

**School:** Medicine Hat High School

**Abstract:** Sewage samples were collected from Medicine Hat and analysed for the protozoan parasites Giardia and Cryptosporidium. A significant increase in the levels of these parasites was detected at the wastewater treatment plant and was likely due to surface runoff from nearby farms. Spinach was grown and contaminated with these parasites which demonstrated adhesion of (oo)cysts to stomata. Giardia and Cryptosporidium was found in commercial spinach.

### Biographies

Kate - Kate Berger is a grade 11 student attending Medicine Hat High School. This is her third Canada-Wide Science Fair, and second with partner Jasveen Brar. Kate's projects have focused on the link between the environment and human health, an area which inspires her to make a difference. Kate volunteers at the local hospital and for Praxis Medicine Hat and the Medicine Hat College in an initiative to promote science fair to kids. Recently Kate and Jasveen gave a presentation at the Operation Minerva Conference in support of women in science. Kate has been playing piano for nine years, is a participant in the Rotary Music Festival and is preparing ...

Jasveen - Jasveen Brar is a grade eleven student attending Medicine Hat High School in Medicine Hat, Alberta. This is the second Canada-wide Science Fair she has attended with partner Kate Berger. Jasveen's projects have focused on the link between the environment and human health, an area which inspires her to make a difference. At the regional fair the pair won best for their age group. She is involved with volunteering at the local hospital, Diabetes Association, Heart and Stroke Foundation, Alzheimer's Society as well as helping Praxis Medicine Hat and Medicine Hat College in an initiative to promote science fairs to kids. Recently Kate and Jasveen...

### Awards

### Value

Challenge Award - Environment - Senior Sponsor: Encana Corporation	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$24 500</b>