

# CWSF 2012 - Charlottetown, Prince Edward Island



## Laurence Emery

### Bioindicators Reveal the Most Eco-Friendly Road Salt Part 2

**Challenge:** Environment

**Category:** Junior

**Region:** Peterborough

**City:** Peterborough, ON

**School:** Queen Mary P.S.

**Abstract:** Currently, road salt is an environmental concern in Ontario. There are many types and likely some are better for the environment than others. I hypothesized "Organic Melt", made mostly from beet juice, would perform the best. Using snails, daphnia and freshwater hydra, I investigated seven de-icers at three different concentrations. Measuring death, birth and respiration rates, this experiment revealed some are more "Environmentally Friendly".

#### Biography

I'm Laurence Emery a grade 8 student at Queen Mary PS, Peterborough, Ontario. The first Regional SF I entered was in grade 2 with a project called, "The Eggsperiment." It wasn't a prize winner but the rewarding experience encouraged me to participate each consecutive year. I have interests in various disciplines of science which are reflected in the projects I have done, they include: physics, mechanical applications, human physiology, chemistry and now environmental studies. As I progressed and saw the older students' projects I hoped I could present a high quality experiment that would send me to the CWSF. This is the second year I'm eligible and my dream has come true again! At school I volunteer at the library and make the daily announcements, my riddle of the week is very popular. I also compete on the Track Team and tend to our award-winning butterfly garden. At home I build model airplanes and I'm passionate about fish. I am the neighborhood expert on aquariums. For years I have participated in the Canadian cross country skiing program. I'm also a Scout, figure skater, triathlon participant, air cadet and an avid canoe tripper. I hope for an amazing experience this year.

#### Awards

#### Value

Challenge Award - Environment - Junior Sponsor: Encana Corporation	\$500
Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$6 000</b>