

# CWSF 2013 - Lethbridge, Alberta



## Nicole Poirier

### Biogas from Biomass - Producing Energy From Waste Organic Material

**Challenge:** Energy

**Category:** Junior

**Region:** Halifax

**City:** Bedford, NS

**School:** Bedford Academy

**Abstract:** Cow manure was mixed with egg, mashed banana, potato peelings, horse manure, and onion peelings, and left to ferment for a 12 day period. During this time, the organic mixtures were kept in plastic bottles, sealed with balloons to capture the gases. The mixture of cow manure and mashed banana released the most biogas during this time. Biogas is a form of clean, renewable energy.

#### Biography

I am a 13-year-old, grade 8 student at Bedford Academy. I live in Nova Scotia, and I enjoy taking dance and yoga classes with my friends, playing piano, and learning about science! In my future I would like to have a career in the science industry - possibly as an environmental scientist. I got the inspiration for my project from many recent news reports about finding environmentally-friendly energy sources. Right now, there is a lot of investigation going on regarding the use of biomass for energy and it's benefits and drawbacks. I would like to further investigate renewable energy resources and how they are used around the world.

#### Awards

#### Value

Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	\$100
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 100</b>