

## CWSF 2015 - Fredericton, New Brunswick



### Jacob Hill, Stephan Ducharme

#### I'm Lovin' It! Producing Biopolymers From Fast Food Waste

**Challenge:** Environment

**Category:** Junior

**Region:** Avon Maitland-Huron Perth

**City:** Exeter, ON

**School:** South Huron District H.S.

**Abstract:** Our project is about reducing the global carbon footprint through the use of biopolymers in the fast food industry. We looked at how big the impact of global warming is on our environment in our society today and branched off from there. Our experiment entailed us extracting the starch out of potatoes and using that we added glycerin and other components to make a bio-plastic.

#### Biographies

Jacob - My name is Jacob Hill. This is my second trip to the Canada-wide Science Fair and I am very thankful for this opportunity. I play hockey and competitive soccer. After secondary school, I plan to pursue a career in the medical field. Our project is about reducing the global carbon footprint by making a biopolymer out of potato starch and implementing it into the fast food industry. Rather than throw out or compost the potato skins, we are recommending that they extract the starch and use it to create a bioplastic which could be used to replace the much less environmentally-friendly materials used in their food wraps and packaging today. We cho...

Stephan - My name is Stephan Ducharme. I attend South Huron District High School 7/8. I enjoy running and playing hockey in my spare time. After high school, I plan to head into a career in medicine, preferably neurosurgery. For our project, my partner and I wanted an idea that would have a positive impact on our society. We realize the environmental impacts that petroleum based plastics have, and we wanted to find a way to minimize the effects of these materials. Later, we will possibly try and pitch our idea to large fast food companies so that they can reduce their carbon footprint. For other students thinking about creating a project, I suggest putt...

#### Awards

#### Value

Renewable Energy Award - Junior Sponsor: Ontario Power Generation	\$500
Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$1 500</b>