

# CWSF 2011 - Toronto, Ontario



## Johnny Su, Dazhi Liao

### Biochar: A carbon-negative soil enhancer

**Challenge:** Environment

**Category:** Senior

**Region:** Toronto

**City:** Toronto, ON

**School:** Earl Haig S.S.

**Abstract:** Biochar is an organic material under investigation as a carbon-negative alternative energy strategy and as a growth aid for plants. However, currently few studies on biochar's environmental effects exist. This short term investigation used fungi-derived biochar to demonstrate biochar's potential to improve soil quality, enhance plant growth, and mitigate climate change. This finding can have significant implications on global warming and the world's food supply.

#### Biographies

Johnny - My name is Johnny Su. I am currently a Gr.12 student who enjoys activities such as violin, piano and badminton. My favorite courses in school are biology, physics, math and music. My recent notable achievements include the RCM Gr 5 violin and Gr 9 piano and the gold medal award at the 2011 Toronto Sci-tech Fair. I plan to pursue a career in the medical field in the future.

Dazhi - Hi, I am Dazhi Liao (or Tony Liao for a more pronounceable name). I am a Grade 12 student in Earl Haig Secondary School in Toronto. I love to travel: I've spent three months in Luxembourg in my Grade 10, and it's the most incredible experience! I love music: I play the cello and my favorite composer is Bach. I love meeting new people, because people are interesting. I enjoy the sciences very much, especially physics. I also love unassigned reading: my favorite authors are Romain Rolland, Kafka, and Marquez. I am going to University of Toronto for its Engsci program (yay!). But hey, I am not a complete geek, because I can't program. I wo...

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$300
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
<b>Total</b>	<b>\$2 300</b>