

## CWSF 2018 - Ottawa, Ontario



### Dheiksha Jayasankar

#### NanoAOX: Localization of Antioxidants via Nanoparticles to Enhance Plant Growth

**Challenge:** Discovery

**Category:** Junior

**Region:** Niagara

**City:** St. Catharines, ON

**School:** Power Glen E.S.

**Abstract:** Nanoparticles and antioxidants have seldom been investigated for use in agriculture. This project investigated the use of carbon nanoparticles and antioxidants in synergy as plant growth enhancers. A combined treatment of nanoparticles and antioxidants increase plant growth by 4-fold. This method of sustainable agriculture have applications in promoting food security and combatting the global food crisis.

#### Biography

Dheiksha Jayasankar is a 13-year-old student at Power Glen Public School in St. Catharines. Her favourite subjects at school are science (of course!), math, and history. At school, Dheiksha is a member of the student council, STEM club, and coding initiatives. Outside of school, Dheiksha is a figure skater at the Winter Club of St. Catharines, skating 3-4 days a week. She also plays the piano and is working toward her RCM Grade 6 exam. Dheiksha has been competing at science fairs since Grade 4, winning a gold medal four times at her regional fair, as well as a silver and a challenge award at CWSF 2017. In addition to science fairs, Dheiksha competed at the World Education Games thrice (2012, 2013, 2015), placing in the top 100 worldwide twice?the only Canadian ever to do so. For her scientific achievements, Dheiksha was one of 13 Ontario Junior Citizens of the Year for 2015, receiving an award from the Lieutenant Governor of Ontario. Although she is only 13, Dheiksha aspires to attend Harvard University for post-secondary, and pursue a degree in STEM

#### Awards

#### Value

4-H Canada Food Security Award - Junior Sponsor: 4-H Canada	\$500
4-H Canada Sustainable Agriculture Award - Junior Sponsor: 4-H Canada	\$500
Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$3 000</b>