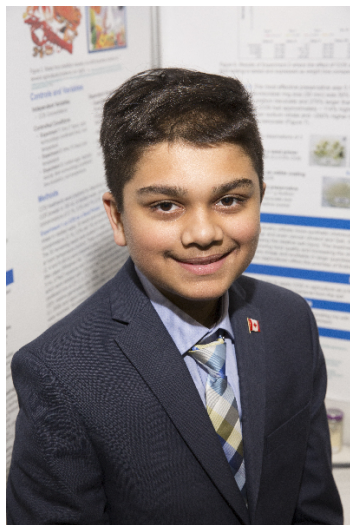


## CWSF 2019 - Fredericton, New Brunswick



### Shiv Patel

#### **Chitosan Oligosaccharides: A Novel Approach to Solving the Global Food Crisis**

**Challenge:** Resources

**Category:** Intermediate

**Region:** Durham

**City:** Ajax, ON

**School:** Pickering H.S.

**Abstract:** The objective of the experiments was to test the effectiveness of Chitosan Oligosaccharides (COS) as a resistance elicitor in seed priming, an edible coating, and a preservative. Therefore, plant-microbial interactions and crop yields can be improved without any negative effects on the consumer's health or the environment. I concluded that COS is a promising material that can help solve the global food crisis.

#### Biography

Shiv Patel is a grade 9 student currently attending the gifted program in Pickering High School in Ajax, Ontario. At school, he enjoys math, french, science, and art but science is definitely his favourite. He has been participating in the regional science fair ever since grade 5. It is an activity he looks forward to every single year and recommends it to others. In his spare time he likes to read, write, play volleyball and badminton, and create artwork. In the community, he is an Air Cadet and a volunteer for the Pickering Public Library and the Pickering Village Museum. He got inspired to do this project because of the food crisis going on around the world. He then designed an experiment to test the effectiveness of a biopolymer called Chitosan Oligosaccharides using three different experiments. He is hoping to pursue a career in medical science. What he recommends for other students thinking about doing a project is to choose a matter or problem that you're interested in solving.

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040