



## CWSF 2017 - Regina, Saskatchewan



## Kamron Zaidi, Austin Wu

## A Comparative Analysis of Hydroponics, Aeroponics, and Fogponics on Plant Growth

Challenge: Resources
Category: Intermediate

Region: York

City: Richmond Hill, ON, Markham, ON

School: Richmond Hill H.S.

Abstract: This experiment compares plant growth through fogponics, aeroponics and

hydroponics using two lettuce varieties. May Queen lettuce grown using fogponics grew 1.43 times taller than those grown using hydroponics and romaine lettuce grew 1.15 times taller. Fogponics generated 1.26 times more biomass per square metre than hydroponics, had 1.64 times longer roots, used 1.73 times less water and 2.10 times less fertilizer compared to

hydroponics.

Awards	Value
Nutrients for Life Foundation Award - Intermediate	\$750
Sponsor: Nutrients for Life Foundation Canada	
Excellence Award - Intermediate - Silver Medal	
Sponsor: Youth Science Canada	
Challenge Award - Resources - Intermediate	
Sponsor: Youth Science Canada	
Western University Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: Western University	
Total	\$2 750

## **Biographies**

Kamron - I am a student of Richmond Hill High School in Grade 10, and I have been in the gifted program since grade 4. This is my second CWSF, and I loved attending the first. Some of my academic achievements include getting 1st in Canada in Grade 8 in the Gauss math competition and 3rd in the Pascal math competition in Grade 9. I also won 1st in York Region and 4th in Ontario in an engineering competition, and 3rd in Ontario in the cardboard boat race. As for my passions, I love music, math and science. I play piano and bass clarinet, and I'm in 2 bands. Also, I'm a figure skater and I enjoy teaching children to skate. In the future, I plan on becomi

Austin - Austin Wu is a current student in Richmond Hill High School. At the current age of 15, he always had a keen interest in pursuing the scientific field. Since he was a child, he looked up to the engineering world, and still strives to become one. As a student with many intellectual strengths, he is capable of quickly understanding new ideas and concepts, allowing him to work with novel technologies and ideas. At the same time, he is able to balance time between his workload and extra-curricular activities. He is extremely exited to participate in this year's fair.





