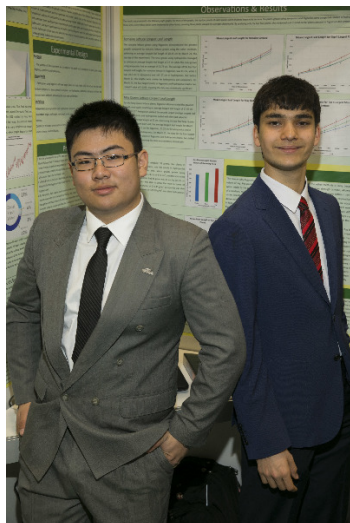


CWSF 2017 - Regina, Saskatchewan



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.

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 excited to participate in this year's fair.

Awards

Value

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