

CWSF 2019 - Fredericton, New Brunswick



Adam Mawji, Omar Hamza

Turmeric's Genome for CRISPR Engineering to Alter Climate Resistant Phenotypes

Challenge: Environment

Category: Senior

Region: South Fraser

City: Delta, BC, Surrey, BC

School: Southpointe Academy

Abstract: Exploring the genome of Turmeric, this project aims to provide a realistic and effective theory on how to use CRISPR genetic engineering techniques to change climate adaptability of Turmeric. Subsequently, this would allow Turmeric to grow outside of its current natural climate and in a drastically different environment. Specifically, we looked at making it possible for Turmeric to grow in the Middle East.

Biographies

Adam - Adam Mawji is a Senior at Southpointe Academy ecstatic at the opportunity to further pursue his passions in science. Adding science fair to his co-circular initiatives alongside Volunteering, Model UN, and Student Government, Adam views CWSF as the next instalment in his journey of learning. Following an experimental project in his junior year, Adam learned of the anti-bacterial properties of Turmeric. Understanding the potential for it to become an accessible form of medical care, especially in areas that are currently devoid of medicine of this nature gave Adam and his partner, Omar, the idea to find a way to pioneer this accessibility. In ...

Omar - My name is Omar Hamza, and I am a senior at Southpointe Academy in Tsawwassen, BC. My first science fair was in grade 6 and I have been participating every year since then. Science Fair has allowed me to explore my different interests and meet new people which I value very much. This year, my partner and I conducted a study on Turmeric and a gene-editing technology that could be used to change where the plant can be grown. If Turmeric's climate resistant genes can be altered, then more people in colder regions can grow the plant locally and benefit from its numerous anti-inflammatory properties. In the future, I am planning on continuing my stu...

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