

CWSF 2017 - Regina, Saskatchewan



Kailas Chari

Can Spices Control Fungal Growth?

Challenge: Environment

Category: Junior

Region: Bay Area

City: Oakville, ON

School: Maple Grove Public School

Abstract: This experiment tests the antifungal capabilities of cinnamon, cloves, star anise, and ginger. Cinnamon is proven to be an effective antifungal agent. This work may lead to organic fungicides that could be used in farming, urban gardens, golf courses and domestic applications, reducing exposure to harsh chemicals that can lead to health problems.

Biography

Kailas Chari is a bilingual student in Grade 7 at Maple Grove Public School in Oakville. He is an avid reader, who loves math, biology and environmental science. He is a competitive swimmer with the Oakville Aquatics Club. Kailas is a talented piano player, who has received numerous awards from local music festivals and placed third at the 2016 Ontario Music Festival Finals. Last fall, an anti-fungal compound was required to treat a mushroom outbreak on a mature sugar maple. No commercial products were readily available. One arborist suggested the use of cinnamon. Kailas decided to test whether there was any scientific evidence for cinnamon as an antifungal agent, and whether other spices could also control fungal growth. In the future, Kailas would like to test whether spice extracts are safe to apply to plants, and whether they may also act as insect repellants. The ultimate goal would be the formulation of a food-grade mixture that could be used to maintain lawns and gardens as an effective alternative to the harmful chemicals typically used. Kailas urges people doing experiments to consider practical applications for their results. Kailas is very excited to attend Canada Wide Science Fair.

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