CWSF 2019 - Fredericton, New Brunswick

Hunter Bannon, Elizabeth Reid

Phenotypical Manipulation of Plants with Coloured LEDs

Challenge: Resources
Category: Senior
Region: Frontenac, Lennox & Addington
City: Napanee, ON, Bath, ON
School: Napanee District S.S.

Abstract: The growth patterns of Lactuca sativa were observed under blue, red and white light emitting diodes, with natural light and darkness controls. Photoreceptors act to convert incoming wavelengths into biochemical signals that result in phenotypic change. Signals of individual wavelengths correlate with specific phenotypes (Kong and Okjima, 2016). Manipulating the phenotypes of a plant is useful for increasing the amount of useable crop.

Biographies

Hunter - I am Hunter Bannon and I attend Napanee District Secondary School, recently I have committed to York university to play football and to attend their engineering program. During my time at Napanee I have been a founding member of the science club NASA (Napanee Academic Science Association). This club puts together academic help as well as events for the community and the school. Being a part of this club has allowed me to inspire the school with the same enthusiasm for science as I have. This inspiration is what peaked my interest in my science fair project. I would want to continue the research of our project to get more information and to co...

Elizabeth - My name is Elizabeth Reid and currently I attend Napanee D.S.S with future aspirations for university in the fall for environmental/ geological engineering. I've always been interested in science and over the past year, myself along with other senior students have built a science club within the school that encourages everyone to get involved in science. My participation in the school extends to the athletics department and I also enjoy volunteering in my community. Extracurricular involvement gives me the confidence to participate in events such as science fair. The idea for the project was a team effort that had developed over time, by usin...