



NEWS RELEASE

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CNC to create cost-effective lighting for Baldy Hughes greenhouses

The Applied Research department at the College of New Caledonia is working with the Baldy Hughes Therapeutic Community to test novel LED light systems for use in greenhouse and plant warehouse applications with insufficient natural sunlight.

Consumers want fresh local produce and communities want food security so commercial growers are looking for technology solutions. CNC is collaborating with LED experts at QuantoTech Solutions as well as the Alacrity Foundation to fund, design and produce the lights as a cost-effective solution for plant producers.

The goal of this project is to address innovation gaps in current LED lighting systems by developing a cost-effective solution that will allow plant producers to customize light intensity and spectrum in their greenhouses to optimize lighting throughout the plant crop cycle. Over the past year, the research team has developed and tested several LED lighting systems. This winter, they will work with Baldy Hughes to install the LED systems into operational greenhouses and grow a range of vegetables and herbs using supplemental LED lighting during the winter months. College students are involved in all aspects of the project, including prototype development and testing, and researching plant responses to LED lighting.

“In our experience every grower has different lighting needs,” said Alycia van der Gracht, Manager of Operations and Supply Chain at QuantoTech. “Partnering with CNC allows us to evaluate a local grower’s facilities and crops so that we can make the best lighting recommendation. CNC is also involved with deployment and provides ongoing support and evaluation as our LED lights continuously improve.”

Oro Barton is an electronics instructor at CNC and also the faculty member leading the project. “We are looking to build on this work with other growers and greenhouse operators in the region,” said Barton. “As more businesses are exploring technologies that allow them to extend their growing season, we invite them to connect with the expertise and facilities at the College to research and develop innovative cold-climate growing technologies. This type of work also benefits our students because they get a chance to apply their skills to real-world problems that will benefit local businesses and communities.”

This project has been made possible through the support from the National Research Council’s Industrial Research Assistance Program and the Natural Sciences and Engineering Research Council of Canada’s College and Community Innovation Program.

Photo credit: QuantoTech Solutions Ltd.

Photo caption: "QuantoTech and CNC install LED lights in the Baldy Hughes greenhouse".

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