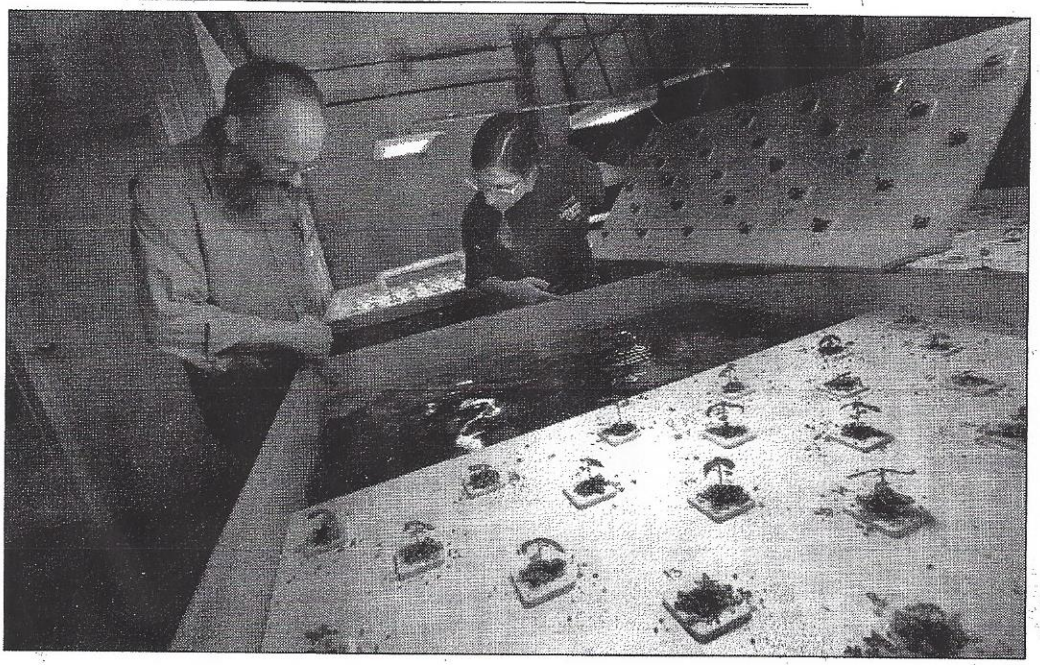

Herald photo by Ian Martens

Lorne MacGregor, director of Applied Research and Innovation, and student Montserrat Villanueva look at an aquaponic mini-system growing basil seedlings Monday at Lethbridge College.

College receives $200K grant for commercial aquaponics

Caroline Zentner
LETHBRIDGE HERALD
czentner@lethbridgeherald.com

Two new applied research projects are underway at Lethbridge College with the help of funding from the Natural Sciences and Engineering Research Council of Canada (NSERC).

The college received an Innovation Enhancement grant of $200,000 over two years to help develop food safety plans for commercial aquaponics operations, to work towards organic certification of aquaponic products, to help commercial growers with technical issues and to develop educational programs for aquaponics.

"We're going to be supporting commercial aquaponics producers mostly in Alberta but across Canada," said Lorne MacGregor, director of Applied Research and Innovation at the college.

Aquaponics involves growing fish and plants together using a recirculating system that lets the plants benefit from the nutrients in fish waste and returns the cleaned water to the fish. Aquaponics is the most water-efficient way of growing food and raising fish. The plants grow better and there are less disease issues.

The college will also forward its work on complete indoor aquaponic systems for use in remote northern communities to hopefully show it's feasible. From there the college can develop proposals to take the work further. Students will be involved in the project and the college has also hired an aquaponics researcher.

He said Nick Savidov of Alberta Agriculture and Rural Development has played a key role and will lead the research and help the college throughout the project.

"The other thing we're working on is we have a collaborative proposal submitted to the International Development Research Centre, a Canadian foreign-aid agency. It's collaborative with Cairo University and the University of Botswana to develop aquaponics for rural Africa," MacGregor said. "If we can develop efficient, effective systems that can work in rural Africa it's a good opportunity for our students to learn both the technical aspects and the broader social, humanitarian things and potentially you're saving lives with that."

The systems would be smaller than a commercial operation and likely be able to provide fish and vegetables for five to 10 families.

The college also received a six-month Applied Research and Development grant, worth about $20,500, for research work to develop a test for giardia, which are single-celled parasites, that would differentiate strains. The college's Tom Graham, a biotechnology instructor, is working with Hyperion Research Ltd. in Medicine Hat on the project.

"A number of varieties of giardia are harmless and the testing right now has no way to distinguish between the harmful and the harmless varieties," MacGregor said. "There's often great expense and disruption when harmless giardia is detected in a water supply so they were looking for a way to easily distinguish between the two."

Several students are already working on the project and MacGregor said good progress has already been made.