

aquaponics research

AQUAPONICS is the combination of aquaculture (fish raising) and hydroponics (growing plants without soil) into one closed-loop, sustainable system that uses the fish waste to provide an organic source of nutrients for hydroponically grown plants. Thanks to a grant from the Natural Sciences and Engineering Research Council of Canada (NSERC), Niagara College has an industry-leading aquaponics system in the greenhouse, ready for your research needs.

RESOURCES

- Aquariums for breeding
 - Canadian Food & Wine Institute Innovation Centre with the ability to process, prepare and cook the fish for comprehensive studies

We are currently accepting projects in these research areas:

→ PLANTS

Commercial aquaponic systems often produce leafy greens. The Niagara College team is interested in exploring the production of different, potentially higher value crops.

→ FISH TYPE

Tilapia is the most common fish to be raised in Aquaponics systems due to its hardiness. The research team would be happy to explore the use of koi, trout, bass and other fish. Trout could potentially be used to recharge natural areas, and would work in concert with the Niagara College Ecosystem Restoration Graduate Certificate.



greenhouse research

THE NIAGARA COLLEGE AGRICULTURE & ENVIRONMENT INNOVATION CENTRE works with faculty and students from the Greenhouse Technician, Horticultural Technician, Landscape Technician, Landscape Horticulture Techniques and Winery and Viticulture Technician programs, to provide a wealth of knowledge to industry partners, giving them a competitive advantage in researching solutions for growing operations.

RESOURCES

- Fully operational greenhouse implementing IPM
- ─ Hydroponic infrastructure
- Green roof modules

WE HAVE CONDUCTED MANY PROJECTS FOR ONTARIO PRODUCERS. INCLUDING:

- ─ Lighting arrays and intensity in a greenhouse situation
- → Growing medium
- → Product testing and validation
- Green roof media, plants and irrigation
- Compost production techniques
- Integrated pest management



Do you have an innovative idea but lack the resources to bring it to life? **MEET WITH US. WORK WITH US.**

- *t* 905-735-2211 Ext. 7172
- e research@niagaracollege.ca
- w NiagaraCollege.ca/Research