

Opportunity for Graduate Student (MSc)

Biological control of multiple thrips species in Ontario greenhouse crops

Vineland Research and Innovation Centre (Vineland) is offering an opportunity for a Graduate Student at the MSc level to start in September 2022.

Vineland is a world-class research centre dedicated to horticultural science and innovation. Located in Canada's Niagara Region, on the traditional territory of Anishinaabeg, Ojibway/Chippewa and Haudenosaunee peoples, this territory is covered by the Upper Canada Treaties.

Vineland's mission is to deliver innovative products and production solutions that address the needs of the horticulture industry and advance Canada's research and commercialization agenda. We are an independent, not-for-profit organization, funded in part by the Canadian Agricultural Partnership.

Our people are the most important asset in achieving our goals and are known in the world for excellence in science and entrepreneurship. Our staff enjoys an exciting and challenging work environment noted for collaboration and knowledge sharing.

General Outline:

The student will be based at the Vineland Research and Innovation Centre in the Niagara Region, while completing their MSc program requirements through the University of Guelph under the co-supervision of Drs. Cynthia Scott-Dupree and Rose Buitenhuis.

Thrips is a key pest in Ontario greenhouse crops. As a result of insecticide resistance and limited availability of effective insecticides against thrips, implementation of biologically-based IPM strategies has become the only sustainable option for greenhouse growers. Thrips IPM in greenhouse crops was developed to target Western Flower Thrips, (WFT) which for a long time was the most common thrips species growers had to deal with. The problems due to the recent rise in populations of Onion thrips (OT) in greenhouse crops made it clear that the current thrips IPM strategy does not work well against this species of thrips and that the elements that make up the IPM strategy had to be evaluated for their efficacy against thrips species other than WFT.

This project builds on results from a previous project that determined OT invasion routes, monitoring practices and that investigated the efficacy of several biocontrol products against both OT and WFT in the laboratory.

Project Objectives:

The successful candidate will participate in the following project objectives to put together a comprehensive systems approach to IPM for both WFT and OT.

1. Survey thrips species and related damage or crop losses in Ontario greenhouse crops, including vegetables, ornamentals, strawberries and cannabis.

2. Validate the results of laboratory trials on the efficacy of biocontrol products against western flower thrips and onion thrips under greenhouse crop conditions.
3. Investigate different release or application methods to improve the efficacy of biocontrol and biopesticide products against onion thrips.
4. Communicate outcomes to stakeholders in Ontario and beyond.

Qualifications:

- BSc in biology or related field
- Experience in greenhouse production, entomology, biological control and/or integrated pest management will be an asset
- For international students: ability to complete the immigration paperwork to enable a September 2022 start date

Term of Placement Opportunity:

September 1, 2022 to December 31, 2024

Location:

Vineland Research and Innovation Centre*
4890 Victoria Avenue North
Vineland Station, Ontario
L0R 2E0

*(*Please note that this location is not accessible by public transportation.)*

To express interest, please send to Rose.Buitenhuis@vinelandresearch.com no later than July 31, 2022 (midnight):

- a 1-2 page cover letter explaining your experience, long-term goals, and why you are interested in research as described above,
- your CV,
- a copy of your recent transcript, and
- contact information for 2 references

Vineland is committed to employment equity, diversity and inclusion in the workplace. We welcome applications from all qualified candidates including women, Indigenous peoples, members of visible minorities and racialized groups, persons with disabilities, persons of the 2SLGBTQ+ community, and others. In accordance with all applicable provincial accessibility standards, accommodations are available on request for candidates taking part in all aspects of the recruitment, selection and/or assessment process.

We appreciate all applications received; however, only candidates selected for an interview will be contacted.

For more information on Vineland Research and Innovation Centre

visit us at www.vinelandresearch.com