



19th Annual

Building Resiliency into Pest Management

November 1, 2022

**Victoria Park East Golf Course
1096 Victoria Road South**

Full Program: <https://www.ontariopmc.ca/program>

Organizing Committee

Kristen Obeid, Chair - OPMC, Ontario Ministry of Agriculture, Food and Rural Affairs

Chris Duyvelshoff, Ontario Fruit and Vegetable Growers Association

Melanie Filotas, Ontario Ministry of Agriculture, Food and Rural Affairs

Katie Goldenhar, Ontario Ministry of Agriculture, Food and Rural Affairs

Kristy Grigg-McGuffin, Ontario Ministry of Agriculture, Food and Rural Affairs

Julie Schipper, Valent Canada

Cheryl Trueman, University of Guelph-Ridgetown

Sean Westerveld, Ontario Ministry of Agriculture, Food and Rural Affairs

OPMC Logo and Banner Design by Doug Schaefer

AGENDA

8:30 a.m – 9:00 a.m

Registration and Coffee
Poster Set Up

MORNING SESSION

Morning Session Chair: Katie Goldenhar, Ontario Ministry of Agriculture, Food and Rural Affairs

9:00 am **Welcome and Opening Remarks: Kristen Obeid**, Chair, OPMC

9:05 am Harvesting genomics to develop molecular tools for integrative pest management strategies. **Chris Grainger**, Harvest Genomics, Inc. (Industry Speaker)

9:15 am Suitability of *Euonymus* spp. for box tree moth (*Cydalima perspectalis*) survival and development. **Abigail Wiesner**, H. Fraser, S. Smith and C. Scott-Dupree. (Student Competition)

9:30 am A novel field kit to detect DMI fungicide resistance in *Claviceps reedii*. **Edward McNab** and T. Hsiang. (Student Competition)

9:45 am Synergistic and antagonistic herbicide interactions for control of volunteer corn in glyphosate/glufosinate/2,4-D-resistant soybean. **Emily Duenk**, N. Soltani, R. Miller, D. Hooker, D. Robinson and P. Sikkema. (Student Competition)

10:00 am Inheritance of Cry1F resistance and life history of the first field-evolved Cry1F-resistant population of the European corn borer (*Ostrinia nubilalis*, Hübner). **Emily Glasgow**, Y. Farhan, A. Michel, R. Hallett and J. Smith. (Student Competition)

10:15 am – 10:45 am **Coffee Break and Poster Viewing**

10:45 am **Plenary Presentation 1**

Best practices for implementing biopesticides for fungal and bacterial disease of apples

Dr. Kerik Cox, Associate Professor, School of Integrative Plant Science
Cornell University

11:30 am Control of multiple-herbicide-resistant waterhemp (*Amaranthus tuberculatus*) with acetochlor-based tank mixtures in soybean. **Hannah Symington**, N. Soltani, A. Kaastra, D. Hooker, D. Robinson and P. Sikkema. (Student Competition)

11:45 am An investigation of the insect pest and beneficial insect complex for cannabis grown outdoors in Ontario and the potential of companion plants as an IPM tactic. **Lillian Auty** and C. Scott-Dupree. (Student Competition)

12:00 pm - 1:00 pm **Lunch and Poster Viewing**

AFTERNOON SESSION

Afternoon Session Chair: Chris Duyvelshoff, Ontario Fruit and Vegetable Growers Association

1:00 pm **Plenary Presentation 2**

Battling the billion dollar bug

Dr. Jocelyn Smith, Research Scientist, University of Guelph Ridgetown

1:45 pm Improving disease forecasts for Stemphylium leaf blight of onion, 2021 and 2022. **Michael Kooy**, B.D. Gossen and M.R. McDonald. (Student Competition)

2:00 pm The confirmation and characterization of auxinic herbicide resistance in a population of green pigweed (*Amaranthus powellii*) from Ontario. **Isabelle Aicklen**, P. Smith, B. Metzger, T. Gaines, M. Jugulam, D. Robinson, P. Sikkema and F. Tardiff. (Student Competition)

2:15 pm New modes of action for fruit and vegetable growers. **Cassie Russell**, Cohort Wholesale. (Industry Speaker)

2:25 pm Tough herbicide - Resistance management tool for field and specialty crops. **Wesley Cook**, **Blechim Crop Protection Canada**. (Industry Speaker)

2:35 pm-3:05 pm **Coffee Break and Poster Viewing**

3:05 pm **Plenary Presentation 3**

Soft chemistries to manage hard problems in Niagara vineyards

Ryan Brewster, Brewster Consulting and **Aaron Oppenleander**, Grape Grower and Custom Applicator

3:50 pm **Presentation of Student Competition Award Winners – Julie Schipper**, CropLife Canada
Closing Remarks and Adjourn

Poster Presentations

-Graduate Student Posters-

- GP-1** Biology and management of cannabis aphid: An emerging pest challenging cannabis production in Ontario. **Jason Lemay** and C. Scott-Dupree. **(Time of judging 9:00-9:15 am)**
- GP-2** Grapevine viruses, insect vectors and management strategies in Canada and the United States: A scoping review. **Kaitlyn Carr**, J. Baird and M.A. Lemay. **(Time of judging 1:45-2:00 pm)**
- GP-3** Examining two *Dicyphus* species (Hemiptera: Miridae) for their potential use as biological control agents on greenhouse tomato. **Carly Demers**, S. VanLaerhoven and R. Labbé. **(Time of judging 9:45-10:00 am)**
- GP-4** Risk of cavity spot on carrots can be related to soil microbiome. **Umbrin Ilyas**, J Manish, N. Raizada, M. Kalischuk, L. du Toit and M.R. McDonald. **(Time of judging 11:30-11:45 am)**
- GP-5** The interaction of lime and boron to manage clubroot on canola, 2022. **Shauna Chesney**, B.D. Gossen and M.R. McDonald. **(Time of judging 9:30-9:45 am)**
- GP-6** Survey of *Neopestalotiopsis* spp. in Ontario strawberries. **Justin McNally**, K. Pragapar, K. Goldenhar, E. Pate and M. Kalishchuk. **(Time of judging 11:45 am-12:00 pm)**
- GP-7** The sterile insect technique as a novel tool for the management of pepper weevil (*Anthonomus eugenii* Cano) in greenhouse and field pepper crops. **Jacob Basso**, R. Labbé and C. Scott-Dupree. **(Time of judging 2:00-2:15 pm)**
- GP-8** Improving the management of western bean cutworm, *Striacosta albicosta*, in edible dry beans. **Josee Kelly**, C. Gillard, J. Smith and Y. Farhan. **(Time of judging 10:00-10:15 am)**
- GP-9** The effect of *Metarhizium brunneum* on wireworm populations. **Abdel Rahman**, I. Scott, T. Kabaluk and H. Henry. **(Time of judging 9:15-9:30 am)**
- GP-10** Optimization and Scalability of Regenerative in situ Electrochemical Hypochlorination for Closed-Loop Hydroponics. **Serge Lévesque**, T. Graham, J. Phillips, J. Lawson, D. Bejan and M. Dixon. **(Time of judging 2:15-2:30 pm)**

*** Judging time - Students must be present at their poster at the time indicated and during the morning and afternoon breaks.**

-Undergraduate Student Posters-

- UP-1** Comparing the effectiveness of select companion plants for management of insect pests on cannabis grown outdoors in Ontario. **Chloe El Hani**, L. Auty and C. Scott-Dupree. **(Time of judging 9:00-9:15 am)**
- UP-2** Does companion plant density impact insect pests and beneficial insects in outdoor cannabis crops? **Margaret Mantel**, L. Auty and C. Scott-Dupree. **(Time of judging 9:40-9:55 am)**
- UP-3** Comparison of an amended agar assay vs. a microplate assay for assessing fungicide sensitivity. **Andrea Rether**, E. McNab and T. Hsiang. **(Time of judging 9:20-9:35 am)**
- UP-4** Broad spectrum biocontrol of plant pathogens with *Bacillus amyloliquefaciens* strains through selective enhancement of its antibiotic production using carbon sources and culture additives. **Saghar Mazarei**, L. Chien, C.Y. Yuan, K. Dumont, S. Tagliabracchi, S. Kandasamy, R. Nicol, S. Saldias and G. Lazarovits. **(Time of judging 10:00-10:15 am)**

*** Judging time - Students must be present at their poster at the time indicated and during the morning and afternoon breaks.**

-Regular Posters-

- RP-1** Soil bacteria with biocontrol potential for ginseng replant disease. **Isadora Bischoff Nunes** and P. Goodwin.
- RP-2** Evaluating efficacy of a novel nematicide for management of Northern Root Knot nematode in greenhouse strawberry production. **Jerry Akanwari** and T. Sultana.
- RP-3** Efficacy and market potential of biopesticides developed from saponins and essential oils. **Rob Nicol**, M. Berhow, M. Charbonneau, I. Scott; K. Tamming and S. Lachance.
- RP-4** Integrated pest management of root maggots in Ontario leafy green and root brassica vegetables. **Ian Scott**, J. Stokes-Rees, J. Beardsley and M. Vankosky.
- RP-5** Casting a light on IPM. **Zelda Pieterse**, R. Buitenhuis, M. Fefer, J. Liu, I. Teshler and J. Smith.
- RP-6** Fighting blight: Evaluating fungicides for efficacy against *Stemphylium* leaf blight in Ontario. **Emily McFaul**, B.D. Gossen, K. VanderKooi and M.R. McDonald.
- RP-7** Improving semiochemical attraction for management of Colorado potato beetle in solanaceous field crops. **Andrew Colton**, A. Gradish and R. Hallet.

*** Regular poster presenters should be available at their poster to answer questions during the morning and afternoon breaks.**

CropLife Student Competition Judging Panel

The OPMC wishes to thank the members of the judging panel for generously volunteering their time to help make this competition happen.

Judging Supervisor: Sean Westerveld, OMAFRA

Graduate Oral

Hannah Fraser, OMAFRA
Erica Pate, OMAFRA
John Purdy, Abacus Consulting Services
Cassie Russel, Cohort Wholesale

Graduate Poster

Travis Cranmer, OMAFRA
Justin Renkema, AAFC
Sara Stricker, University of Guelph
Amanda Tracey, OMAFRA

Undergraduate Poster

Jason Deveau, OMAFRA
Amy Shi, Ontario Ginseng Growers Association

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