



21st Annual From Theory to Practice: Innovation in IPM

November 7, 2024
Victoria Park East Golf Course, 1096 Victoria Road South

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

OPMC Organizing Committee

Ontario Ministry of Agriculture, Food and Agribusiness: Kristy Grigg-McGuffin (Chair), Melanie Filotas, Kristen Obeid, Sean Westerveld, Caio Correa; **University of Guelph:** Rachel Riddle; **Agriculture and Agri-Food Canada:** Justin Renkema; **Valent Canada:** Julie Schipper; **Ontario Fruit and Vegetable Growers Association:** Chris Duyvelshoff

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The OPMC would also like to gratefully acknowledge additional support from the Ontario Ministry of Agriculture, Food and Agribusiness and and the University of Guelph.

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.

Oral Judges: Jason Deveau, OMAFA; Hannah Fraser, OMAFA. Lynn Van Maanen, University of Guelph; John Purdy, Abacus Consulting Services

Poster Judges: Travis Cranmer, OMAFA; Amanda Tracey, OMAFA; Sophie Krolikowski, AAFC; Angela Gradish, University of Guelph

AGENDA

8:30 a.m – 9:00 a.m **Registration and Refreshments, Poster Set Up**

MORNING SESSION

Chair: Justin Renkema, Agriculture and Agri-Food Canada

- 9:00 am **Welcome and Opening Remarks: Kristy Grigg-McGuffin**, Acting Chair, OPMC
- 9:05 am A KASP assay for detection of SDHI resistance in *Stemphylium vesicarium*. **Julia Scicluna**, University of Guelph. (Student Competition)
- 9:20 am Evidence for latent infections of American ginseng (*Panax quinquefolius* L.) by *Ilyonectria mors-panacis*. **Amy Fang Shi**, University of Guelph. (Student Competition)
- 9:35 am Assessing the non-target impacts of azadirachtin on a larval parasitoid of emerald ash borer using a novel bioassay technique. **Preetpal Singh**, University of Toronto. (Student Competition)
- 9:50 am **Plenary Presentation 1**

Conservation dogs in invasive species management: Contributions across taxa and spanning the invasion curve

Dr. Pete Coppelillo, Executive Director, Working Dogs for Conservation, USA

10:35 am – 11:05 am **Refreshment Break and Poster Viewing**

- 11:05 am Influence of ginsenosides on the pathogenicity of *Ilyonectria*. **Anka Colo**, Western University. (Student Competition)
- 11:20 am Soil microbiome and soil properties associated with the risk of cavity spot on carrots in high organic matter soils. **Umbrin Ilyas**, University of Guelph. (Student Competition)
- 11:35 am Unicorn Poop and Crown Royal: The effect of cultivar and temperature on the management of cannabis aphid on cannabis cultivated in controlled environments. **Jason Lemay**, University of Guelph. (Student Competition)
- 11:50 am Effect of tillage on *Pratylenchus* spp. (root lesion nematode) and soil health conditions in corn soybean production. **Jerry Akanwari**, Brock University. (Student Competition)

12:05 pm - 1:05 pm **Lunch and Poster Viewing**

AFTERNOON SESSION

Chair: Caio Correa, OMAFA

1:05 pm Plenary Presentation 2

AI-powered insect detection and identification

Dr. Quentin Geissmann, Assistant Professor, Aarhus University, Denmark

1:50 pm Effect of pH and calcium base saturation on clubroot severity, Holland Marsh, 2023-2024. **Kirsten Holy**, University of Guelph. (Student Competition)

2:05 pm Understanding ginseng replant disease through ginsenoside mobility in ginseng garden soil. **Andrew Rabas**, Western University. (Student Competition)

2:20 pm Accede Plant Growth Regulator. A new and improved way to thin apples. **Dan Colcuc**, Nufarm. (Industry Speaker)

2:35 pm-3:05 pm Refreshment Break and Poster Viewing

3:05 pm Plenary Presentation 3

AI, automation and robotics to control weeds

Kristen Obeid, Weed Specialist, Ontario Ministry of Agriculture, Food and Agribusiness

3:50 pm Presentation of Student Competition Award Winners – CropLife Canada and OPMC

4:00 pm Closing Remarks and Adjourn

Post Conference Survey

Thank you for attending the 2024 OPMC. Please take a few minutes to complete a post-event survey. Your feedback is important in organizing future events. To complete the survey, visit <https://forms.gle/wnXGZ8rewmtDKJdVA> or scan the QR code



POSTER PRESENTATIONS

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

-Graduate Student Poster Presentations-

- GP1** *Beauveria bassiana*: A promising fungal endophyte against clubroot on cabbage, 2024. **Kelly Ruigrok**, University of Guelph. (Time of judging 9:00-9:10 am)
- GP2** Decoding antioxidant dynamics and genetic mechanisms in early *Brassica napus*-*Verticillium longisporum* interactions. **Ayomi Thilakarathne**, Wilfred Laurier University (Time of judging 9:12-9:22 am)
- GP3** Investigating BnNAC19's function as a negative regulator in *Brassica napus* and *Verticillium longisporum* interaction. **Nick Archibald**, Wilfred Laurier University. (Time of judging 9:24-9:34 am)
- GP4** Detection of plant pathogens in plant, soil and water samples via DNA metabarcoding. **Yuan Pei**, University of Guelph. (Time of judging 9:36-9:46 am)
- GP5** Robotic weed management of beetroot fields in high organic matter and mineral soils. **Ifesinachi Ezeh**, University of Guelph. (Time of judging 11:05-11:15 am)
- GP6** Changes in sensitivity of *Clariireedia jacksonii* to the demethylation inhibitor fungicide propiconazole after 30 years of use. **Andrea Rether**, University of Guelph. (Time of judging 11:17-11:27 am)

Undergraduate Student Poster Presentations-

- UP1** Development of an AS-qPCR assay as a diagnostic tool to determine etoxazole resistance in *Tetranychus urticae* (two-spotted spider mite) populations. **Reagan Michiels**, Western University. (Time of judging 11:29-11:39 am)

-Regular Poster Presentations-

- RP1** Optical density assay to determine the sensitivity of *Pythium* and *Globisporangium* isolates to mefenoxam. **Umbrin Ilyas**, University of Guelph.
- RP2** Examining dwarf ginseng as a research model for *Ilyonectria* pathogens. **McKenna Campbell**, Ontario Ministry of Agriculture, Food and Agribusiness.
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