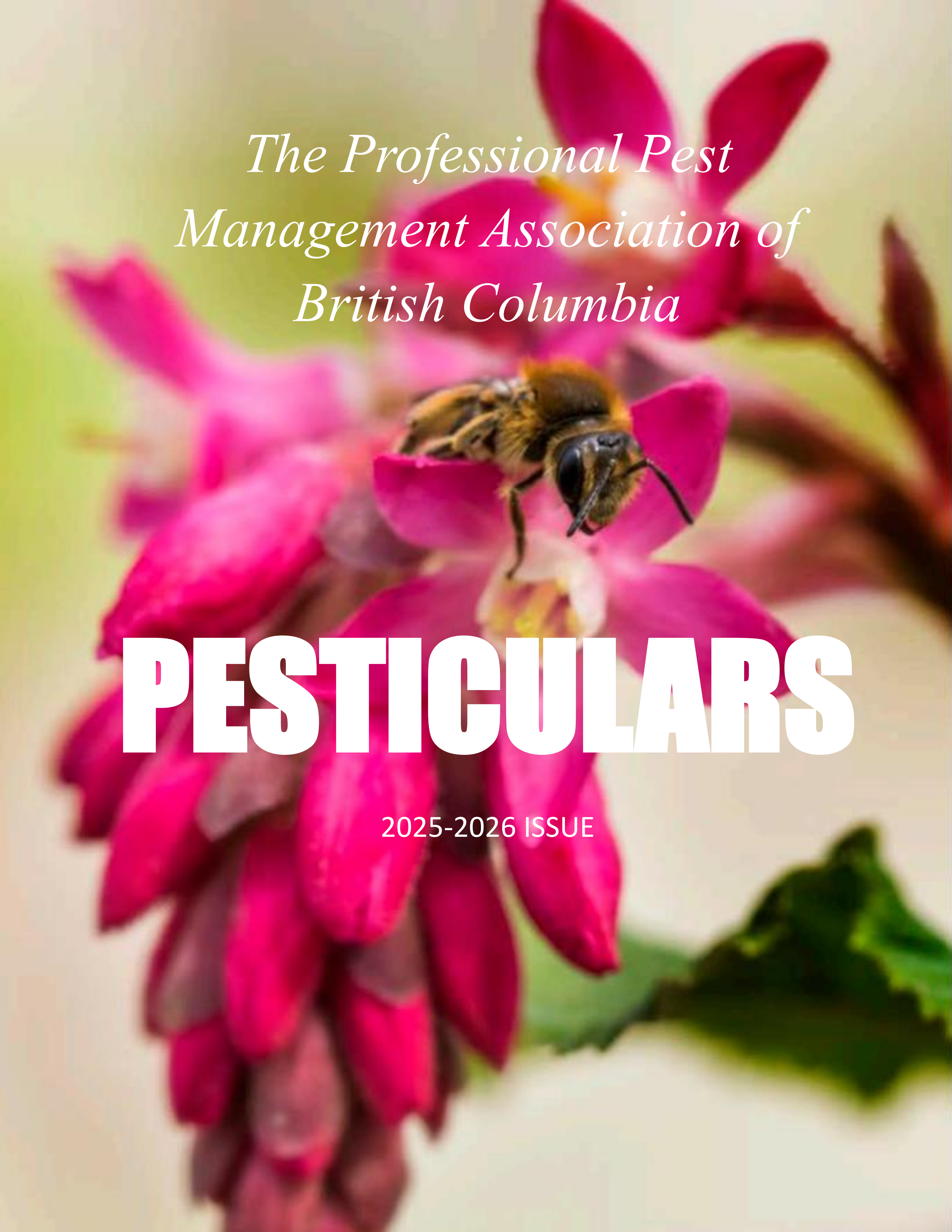


The Professional Pest Management Association of British Columbia

PESTICULARS

2025-2026 ISSUE

The Professional Pest Management Association of British Columbia

PESTICULARS

The Professional Pest Management Association of British Columbia (PPMABC) is supported by industry sponsors, members, and dedicated volunteers.

Host Address:
Simon Fraser University
8888 University Dr,
Burnaby, BC, V4A 1S6
www.sfu.ca/ppmabc/

Jesse L MacDonald

Jesse MacDonald is a biologist with 17 years of experience with Agriculture and Agri-Food Canada and is currently Summerland's Knowledge and Technology Transfer Officer. His peer-reviewed publications span the disciplines of fungal pathology, virology, entomology, and physiology in horticultural commodities. He sits on a number of industry research and extension committees and leadership groups and is the past president of the Professional Pest Management Association of BC and the current president of the Canadian Phytopathological Society BC Chapter. His roles also include Science Coordinator for the Peace Region Living Lab and BC Living Lab within the Government of Canada's flagship Agricultural Climate Solutions program.

A message from our current PPMABC President

"This year has marked a return to old roots, as well as a concerted renewal on a number of fronts. We've returned to the Scandinavian Centre, which feels like an old "home" to me as a PPMABC'er. Thank you to our sponsors for making this possible and thank you to the Scandinavian Centre – and in particular, Tina – for hosting us again. We could not have done this without everyone's support.

We've been looking at ways to give our membership more. This year marks the first time we will be publishing the **"Proceedings of the Professional Pest Management Centre of British Columbia."** Stay tuned for that – we are very much looking forward to it! It will accompany our traditional **"Pesticulars"** newsletter this spring. We've also identified areas that need renewal to stay current and make the executives' roles a bit easier. We will create a new email address for registration that more executives can access, and we will look into expanding the PayPal options online to include sponsorship opportunities. I will also propose a more refined abstract submission form to enable better tracking.

This year, we celebrated a dedicated, long-time member and past president of the PPMABC – **Lucian**. He was, very deservingly, awarded the **Thelma Finlayson Lifetime Achievement Award.** Congratulations, Lucian – we are very happy to have you with us.

Please continue to stay involved, and if you know anyone who may be interested in an executive position, we would welcome them with open arms!

Once again, thank you to all of our sponsors – until next year"

SOIL, SENSORS, SPORES, AND CIRCUITS
THE FUTURE OF IPM IS NOW!

The Intersection of Nature and Technology in IPM

"Looking back at 2024'

2025 Annual Symposium

"Alternative pest and disease management strategies"

Scandinavian Community Centre, 6540 Thomas St, Burnaby, BC

"DRONES OVERHEAD, PESTS IN DREAD THE FUTURE OF IPM IS HERE"

Lucian Mirciou

We are proud to present this year’s Thelma Finlayson Lifetime Achievement Award to Lucian Mirciou in recognition of his long-standing contributions to pest management and applied entomology in British Columbia and beyond.

Lucian began his academic journey at the Faculty of Silviculture and Forest Engineering at Transilvania University in Brașov, Romania, earning a B.Sc. in Silviculture (1996) and an M.Sc. in Forestry (1997). From 1996 to 2000, he worked as a researcher at the Forest Research and Management Institute in Brașov, focusing on forest protection and pest management.

In 2004, Lucian completed a Master’s degree in Pest Management at Simon Fraser University, where he conducted research on pheromone-based monitoring of the orange wheat blossom midge under the supervision of Dr. Gerhard Gries. His work contributed to the growing body of research in semiochemical-based pest monitoring.

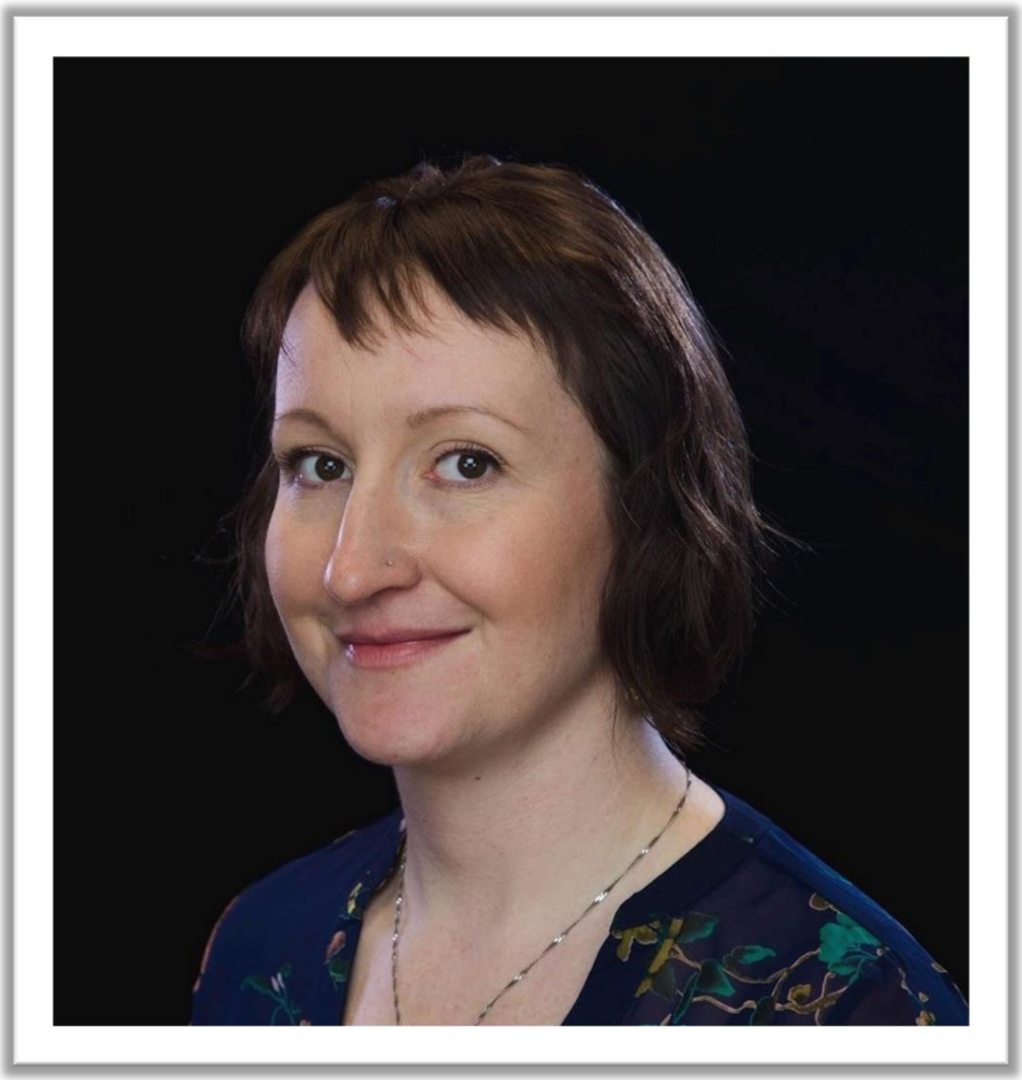
Lucian went on to found Bioconcept Pest Management Ltd. in 2005—an innovative company specializing in structural pest management. Through this work, he has remained closely engaged with research and development, including contributing to the development and patenting of "attract and kill" insect control technologies. Lucian has also actively supported students and collaborative research in the pest management field, helping to bridge academic science and practical application.

Beyond his professional contributions, Lucian leads a rich and engaged personal life. Together with his wife Felicia, he raises their five children—ranging from high school to post-graduate students—while managing work in pest management and construction. Lucian also finds joy in farming, animal husbandry, beekeeping, and enjoys soccer and hunting.

Lucian Mirciou’s passion for pest management, dedication to knowledge-sharing, and his ongoing support of research and innovation make him a deserving recipient of this year’s Thelma Finlayson Lifetime Achievement Award.

Dr. Chandra Moffat

Dr. Chandra Moffat is a Research Scientist in Entomology, specializing in the biological control of invasive insects and invasive weeds, with Agriculture and Agri-Food Canada in Summerland, British Columbia. Her team focuses on conducting research to develop and optimize biological control-based solutions for the management of invasive insects and invasive weeds in agricultural, rangeland and riparian ecosystems. They draw on approaches from natural history, taxonomy, plant and insect ecology, and molecular biology, to accelerate biological control-based pest management.



Potential for indirect biocontrol for the invasive insect, spotted lanternfly, via direct biocontrol of the weed Tree of Heaven

Chandra Moffat[1], Hester Williams[1], Sonja Stutz[2], Phil Weyl[2], Francesca Marini[3]

[1]Agriculture and Agri-Food Canada, [2]CABI, [3]BBCA

Biological control programmes generally target one or a few closely related organisms to provide direct control of invasive (or otherwise damaging) species. However, opportunities exist for indirect biocontrol by reduce populations of an organism which is relied upon or used heavily by the target invasive species. Spotted lanternfly (Lycorma delicatula, SLF) is an highly invasive insect species that established in the USA in 2014. Feeding on over 70 plant species, and presents a high risk to Canadian agriculture as well as forestry, ornamental and natural resource sectors. While SLF has been directly targeted for biocontrol, no suitably host-specific candidate agents have yet been identified in foreign exploration.

While spotted lanternfly's impacts are most heavy in agriculture, it has a strong association with select hardwood trees of Asian origin as part of its lifecycle. One such tree is the highly invasive Tree of Heaven (Ailanthus altissima, ToH), which has reached high densities in some parts of Canada, often overlapping with grape production areas such as BC's Okanagan Valley and southwestern Ontario. To has a number of severe environmental impacts in grassland, riparian, foreshore and urban environments. In 2019 we began investigating the feasibility of a biocontrol program for ToH in Canada, building upon prior work done in the USA. To date, two candidate agents are being considered for release in Canada. If approved and successful in reducing the spread density of ToFi, this weed biocontrol programme could indirectly serve as biocontrol for SLF, by limiting its establishment and spread in Canada.


Potential for indirect biocontrol for the invasive insect, spotted lanternfly, via direct biocontrol of the weed Tree of Heaven
Chandra Moffat, Hester Williams, Sonja Stutz, Phil Weyl, Francesca Marini
Agriculture and Agri-Food Canada
CABI
Canadian Food Inspection Agency
BBCA


Tree of Heaven
Ailanthus altissima
• Deciduous tree
• Dioecious: either male or female flowers
• Compound leaves with smooth margins
• Maple like seed (samaras)
• Clonal
UGA5292037

Downy mildew infection affected the physiology and floral development of pearl millet

Sarah Murria[1], Namarta Gupta[2], Nirmaljit Kaur[2], Li Ma[1]

[1]Institute for Sustainable Horticulture, Kwantlen Polytechnic University, [2]Punjab Agricultural University

Pearl millet is an ancient grain and superfood recognized for its climate resilience and sustainability. While disease concerns for millet cultivation are not currently prevalent in North America, monitoring for potential threats through seed development is advisable. Plants and their pathogens are engaged in a continuous coevolutionary struggle, with pathogens often manipulating plant development via phytohormone signaling. Herein, we assessed the impact of downy mildew (Sclerospora graminicola) infection on the physiology and floral development of pearl millet. Downy mildew infection altered the anatomical, biochemical, and photosynthetic characteristics of flag leaf, increasing internal CO2 concentration while decreasing stomatal conductance, transpiration and net photosynthetic rate. A reduction in total soluble sugar content and an increase in starch and total phenolic content were observed, leading to feedback inhibition of photosynthetic activity. Post-infection, levels of malondialdehyde and enzymatic antioxidants, viz., peroxidase and polyphenol oxidase also increased. This imbalance affected developing panicles and altered floral development. An increase in tiller number may have resulted from the disruption of apical dominance, leading to a threefold rise in endogenous auxin. This suggests that auxin transport from developing axillary buds contributed to malformed ear proliferation. This study indicates that downy mildew infection significantly disrupted pearl millet development by altering its physiological characteristics, ultimately impacting grain production.


Background
International Year of Millets - 2023
Pearl Millet
A key millet, capable of thriving in poor soils and extreme environmental conditions.
Widely used in health food products, including baby food and nutritional powders.
Global demand is rising due to its gluten-free nature.
Versatile applications: used as forage, cover crop, silage, biofuel, and a valuable nutritional source.
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Update of apple tree decline issues in Western Canada: a potential link between fungal cankers, invasive Sesiidae moths, and abrupt hydraulic failure

Jesse L. MacDonald[1], Kirsten D. Hannam[1], Melanie Walker[1], Hao Xu, Daniel T. O'Gorman[1], Helene Sanfacon[1], Huogen Xiao[1], Jose R. Urbez Torres[1]

[1]Agriculture and Agri-Food Canada

Sudden apple decline (SAD) is a poorly understood disorder, resulting in the rapid death of apple trees. We investigated the signs and symptoms, biotic and abiotic stressors, fruit quality impacts and internal tree hydraulics of afflicted trees. In 2018, orchard surveys were conducted in seven apple orchards in the Okanagan Valley reporting high tree mortality consistent with SAD. Of 350 trees observed, 28.4% were assessed as declining; necrotic stem lesions were observed on 87.5% of declining trees, and underdeveloped foliage was observed on 27.7% of the declining trees. A survey of a 1-10-year-old apple germplasm orchard showed that the probability of trees exhibiting SAD increased with tree age, regardless of parentage. Across orchards, there appeared to be an association between infestation of apple clearwing moth (Synanthedon myopaeformis), the size of necrotic stem lesions, and incidence of SAD. Assessment of stem water transport showed a water limiting bottleneck at the graft union, often associated with canker. The trees in decline also had lower midday stem water potential, lower photosynthetic rate, and lower fruit weight and dry matter. Grid (5-m) sampling of soils in four affected orchards showed a possible correlation between SAD-associated tree mortality and a given soil's ability to retain water (e.g., soil depth, coarse fragment content, organic matter content). We propose that impaired water transport across the graft union, due in part to the impacts from fungal canker and associated S. myopaeformis infestations, may be a contributing factor to hydraulic failure and the incidence of SAD in this region.


Update of apple tree decline issues in Western Canada:
a potential link between fungal cankers, invasive Sesiidae moths, and abrupt hydraulic failure
J.L. MacDonald, K.D. Hannam, M. Walker, H. Xu, D.T. O'Gorman, H. Sanfacon, H. Xiao, J.R. Urbez Torres
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Into the Sarcophagus: Opening the crypt on aphid-parasitoid dynamics and biodiversity in British Columbia's highbush blueberries

Eva Burghardt[1], Juli Carillo[1], Michelle Franklin[2], Bryan Brunet[2]

[1]University of British Columbia, [2]Agriculture and Agri-Food Canada

Highbush blueberry production in British Columbia continues to face challenges to manage aphid-vectored blueberry scorch virus. Over the past decade, the BC Blueberry Industry has seen many developments; increased blueberry acreage and production intensification, new invasive pests, and weather extremes have all altered the landscape of blueberry agriculture. To determine the best aphid management practices, investigation is needed on the changes in biodiversity of aphid species and their parasitoids in BC blueberry agroecosystems. Drawing from a study conducted by Raworth et al. (2000) through Agriculture Agri-Foods Canada within the same geographic region, in 2024 we collected alate aphid samples from seven blueberry fields using stationary suction and pan traps placed in-field and in surrounding hedgerows. Collected aphids will be identified to species level, and the biodiversity and abundance compared to the populations identified in previous literature. In addition to trap sampling, we collected blueberry plant tips with live aphids and aphid mummies attached. Blueberry tips were kept in the laboratory for one month in order to collect emerging parasitoids, which were stored in ethanol for identification to species level. Data analysis is ongoing, and we hope to relate parasitism rate from collected samples to the management practices in fields, as well as outlining the parasitoid and aphid population biodiversity within sampled fields.


Into the Sarcophagus:
Opening the crypt on aphid-parasitoid dynamics and biodiversity in British Columbia's highbush blueberries
Eva Burghardt, Dr. Juli Carrillo[1], Dr. Michelle Franklin[2], Dr. Bryan Brunet[2]
UBC
[1] THE UNIVERSITY OF BRITISH COLUMBIA
[2] Agriculture and Agri-Food Canada
EXIT

Bacterial egg symbiont-derived odors inform stable fly oviposition decisions

Emmanuel Hung[1], Stephanie Zaborniak, Anya Gould, Sukhmani Kaur, Kyra Stephens, Augustus Negraeff, Regine Gries[1], Gerhard Gries[1]

[1]Simon Fraser University

Stable flies, *Stomoxys calcitrans*, are blood-feeding pests of livestock that are of worldwide veterinary importance. They are frequently found near livestock producing areas, with larvae developing in ephemeral sites composed of decaying organic matter. Gravid female stable flies orient towards odors and gases emanating from substrates that are optimal for larval development. Some olfactory cues may be produced by fly bacterial symbionts and indicate conspecific presence, the effect of which is unknown. Subsequently, we investigated the effects of egg bacterial symbionts on female oviposition site preferences.

We collected, isolated, and identified 8 bacterial isolates from fly eggs. We then tested the behavioural responses of females to each isolate. Our results demonstrate that egg-laying and mid-ranged attraction is elicited by odours produced by *Serratia marcescens* and *Sporosarcina* sp. Identification of the semiochemicals which mediate this interaction is underway and may ultimately develop new olfactory lures which target gravid female stable flies.

Who is who: Identification and interactions of *Larinus minutus* and *Bangasternus fausti* within diffuse knapweed

Rachel Wong[1], Tyler Nelson[2], Gerhard Gries[1], Chandra Moffat[2]

[1]Simon Fraser University, [2]Agriculture and Agri-Food Canada

Biological control re-unites invasive species with their specialist natural enemies to provide top-down population regulation. Diffuse knapweed has been controlled in North America since the 1990s using the seed-head weevil Larinus minutus. However, since 2020, Bangasternus fausti has been found in British Columbia, potentially competing for seed heads or enhancing control through synergy with L. minutus. To effectively evaluate the interactions and timing of these two weevils occupying the same niche requires identifying them during the larval stage, however, identifying weevil larvae is impossible using morphology alone. In this study, we developed species-specific primers to track larval phenology by extracting and amplifying DNA from dissected seed heads. We identified the primers Lm150 and Bfl_9extra to effectively identify larval stages of both L. minutus and B. fausti. L. minutus was ten times more abundant than B. fausti. B. fausti larvae appeared in early July and mid-August for dissections, and most B. fausti emerged in August through rearing. L. minutus larvae were present from July to September in dissections and rearing.

The Integrated Management of Pathogens on Cannabis sativa L. (cannabis) under Greenhouse Conditions

Liam Buirs[1]

[1]Pure Sun Farms

The increased cultivation of high-THC Cannabis sativa L. (cannabis), particularly in greenhouse settings, has resulted in a higher incidence of diseases that adversely affect crop growth and quality. Among these, the most significant diseases include root rots (caused by Fusarium and Pythium spp.), bud rot (Botrytis cinera), powdery mildew (Golovinomyces ambrosiae), and cannabis stunting disease (hop latent viroid). An integrated management approach to mitigate the impact of these diseases across the developmental stages of cannabis requires combining strategies that target the reproduction, dissemination, and survival of the associated pathogens, many of which may co-occur on the same plant. The identification and cultivation of cannabis genotypes exhibiting tolerance or resistance to various pathogens have been shown to be a viable initial strategy for managing the primary cannabis diseases. The application of the sanitation product Zerotol at a 1% concentration in irrigation water was found to suppress the development of Pythium and Fusarium by over 75%. Systematic root testing by PCR of stock plants intended for vegetative propagation was shown to significantly reduce hop latent viroid incidence from 21% to less than 0.5%. Comparative evaluation of the preventive versus curative applications of nine biorational products for managing Golovinomyces ambrosiae incidence revealed variable efficacy; Regalia Maxx exhibited the greatest preventive efficacy, while Cyclone demonstrated the greatest curative efficacy. Enhancement of air circulation around inflorescences to manage Botrytis cinerea reduced bud rot incidence by 66-92%. Additionally, preventive foliar applications of Rootshield HC (Trichoderma harzianum, 10 g L~') reduced disease incidence by 47-91%.


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The Integrated Management of Pathogens on Cannabis sativa L. (cannabis) under Greenhouse Conditions
By Liam Buirs
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WE HAVE SOLUTIONS

Major Diseases of native berry plants in Pacific West of Canada

Rishi Burlakoti[1]

[1]Agriculture and Agri-Food Canada

Elderberry, huckleberry, salmonberry, and thimbleberry are ecologically and culturally important wild berry native plants in Pacific West of Canada. Compared to cultivated berry crops, very limited studies were conducted to understand the diseases of native plants and plant pathogens associated with these diseases. In this presentation, our major research initiatives in past five years on native berry plant species will be summarized. In particular, major diseases found in multiyear disease survey will be presented and efforts on identifying and characterizing the major fungal and bacterial pathogens associated with these diseases will be discussed. Finally, future research potentials in understanding the pathogen biology and disease epidemiology as well as options for managing these major diseases will be discussed.

UV-C as an alternative approach for managing powdery mildew in greenhouse cucumbers

Li Ma[1]

[1]Institute for Sustainable Horticulture, Kwantlen Polytechnic University

Powdery mildews are widespread diseases among plants caused by a group of fungal pathogens belonging to the order Erysiphales. Most growers currently treat powdery mildew with chemical fungicides, which impose procurement and labor costs, as well as concerns around their negative long-term effects on the environment and human health. UV irradiation treatment has recently shown efficacy against several species of powdery mildew. Efficacy trials were conducted on detached cucumber leaves to determine the optimal doses and frequency of UV-C treatment and dark period required to control powdery mildew using UV-C radiation in greenhouse cucumber. Our results showed that on clean leaves that were inoculated with powdery mildew spores, there was either no or much less disease development under UV-C treatment, compared to the untreated control. On infected leaves, UV-C treatment also suppressed the progress of powdery mildew, even though the efficacy of treatment was not as significant as for clean leaves. These results suggest that UV-C radiation can suppress powdery mildew in greenhouse cucumber, and it is more effective when applied preventively. This could be a useful, environmentally friendly, nonchemical option to control powdery mildew in greenhouse cucumber.


UV-C as an alternative approach for managing powdery mildew in greenhouse cucumbers
Li Ma, James Gedok and Deborah Henderson
Institute for Sustainable Horticulture, Kwantlen Polytechnic University
institute for sustainable horticulture
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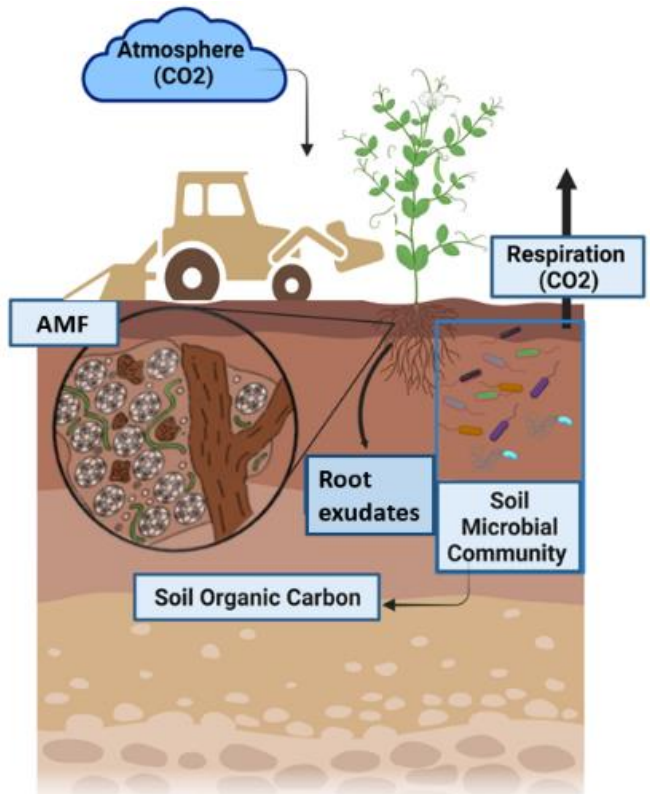
Impact of Agricultural Practices on Soil Microbiome

Mehrdad Mohammadiani

Soil microbiomes, the communities of microorganisms including bacteria, fungi, archaea, and protists, play a pivotal role in ecosystem functioning and sustainable agriculture. These communities regulate essential processes such as nutrient cycling, organic matter decomposition, disease suppression, and plant growth promotion. Among these microorganisms, soil fungi and bacteria form complex networks of interactions with each other and with plant hosts, particularly in the rhizosphere, the narrow zone surrounding plant roots. This biologically dynamic region is crucial for plant-microbe communication and microbial competition, cooperation, and nutrient exchange. As agriculture intensifies and human interventions shape soil environments, understanding how agricultural practices influence these interactions is critical for developing resilient and sustainable agroecosystems.



In the rhizosphere, plants and microbes are engaged in highly evolved signaling exchanges. Plants release diverse compounds, collectively known as root exudates—including amino acids, organic acids, sugars, and phytohormones—that can function as both nutrients and signaling molecules. These exudates attract beneficial microbes, such as nitrogen-fixing bacteria and mycorrhizal fungi, while sometimes repelling pathogens. In response, soil microbes release signals that can activate plant immune responses, alter root architecture, and even regulate plant gene expression. Communication within microbial communities, such as quorum sensing among bacteria, further adds complexity to these interactions. These signaling processes help determine the composition and function of the rhizosphere microbiome, which ultimately affects plant health and soil fertility.

Agricultural practices, especially tillage, fertilization, pesticide application, and crop rotation, have profound impacts on these microbial interactions. For example, tillage disrupts soil structure and microbial habitats, leading to changes in oxygen availability and decomposition rates. This accelerates the breakdown of organic matter and alters nutrient availability, which in turn shifts microbial community structure—often reducing fungal diversity and impacting beneficial taxa like arbuscular mycorrhizal fungi (AMF).

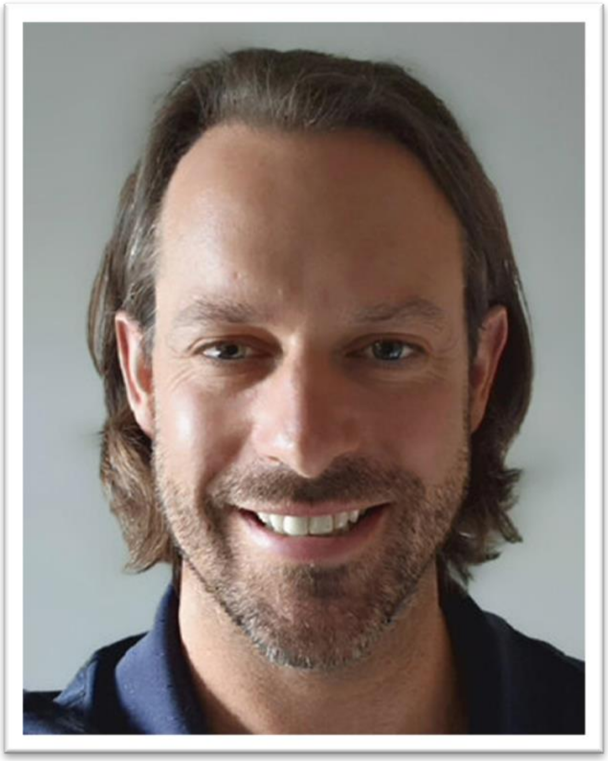
To assess the impact of agricultural practices on soil microbiomes and their interactions, researchers increasingly rely on molecular tools. Traditional culture-based methods, though useful, capture only a fraction of microbial diversity. The introduction of high-throughput sequencing (HTS), particularly amplicon sequencing of the internal transcribed spacer (ITS) region for fungi and 16S rRNA for bacteria, has revolutionized microbial ecology. These approaches reveal how microbial communities respond to environmental variables such as tillage, crop type, nutrient amendments, and soil pH. Specific microbial genes or taxa have been linked to key ecosystem functions like nitrogen cycling, phosphorus solubilization, and cellulose degradation. For example, the presence and abundance of genes related to denitrification or methane metabolism can indicate how a soil system might respond to climate change or altered nutrient inputs. Identifying microbial bioindicators that consistently correlate with soil health parameters—such as nutrient availability, aggregate stability, and disease suppression—is a growing area of interest.

Understanding and managing the soil microbiome is fundamental to promoting agricultural sustainability. Healthy soils are biologically active and resilient, able to support productive crops while reducing the need for chemical inputs. By leveraging microbiome knowledge—through practices such as reduced tillage, cover cropping, organic amendments, and targeted microbial inoculants—farmers and land managers can enhance beneficial microbial interactions and improve soil function. In this context, microbial communities are not just passive components of the soil but active partners in shaping the productivity and sustainability of agroecosystems.

PPMABC EXECUTIVES 2025 – 2026

Jesse L MacDonald

Past President



Jesse MacDonald, B.Sc. (UBC), M.P.M. (SFU) is a biologist with 15 years of experience at Agriculture and Agri-Food Canada's (AAFC) research and development centres in British Columbia. He has extensive expertise in efficacy, tolerance, and residue trials within GLP-certified laboratories and currently serves as a knowledge and technology transfer specialist at the Summerland Research and Development Centre, working closely with scientists, growers, and industry partners to advance crop protection and plant health solutions.

His peer-reviewed publications span fungal pathology, virology, entomology, and horticultural physiology. Jesse is actively involved in industry leadership, serving as president of the BC Professional Pest Management Association, BC regional representative for the Canadian Phytopathological Society, and a member of research and extension committees for the BC Cherry Association and Wine Grape Council. He also contributes to the Okanagan Water Stewardship Committee and the Okanagan and Similkameen Invasive Species Society.

Jesse is an original member of the BC Tree Fruit Stabilization Initiative, supporting long-term solutions for the provincial apple industry, and serves as science coordinator for the Peace Region Living Lab and co-coordinator for the BC Living Lab, both under Canada's Agricultural Climate Solutions program. He lives in Summerland, BC, where he also manages his family farm.

Dr. Li Ma
President

Dr. Li Ma is a Research Scientist at the Institute for Sustainable Horticulture (ISH) and a Faculty Member at Kwantlen Polytechnic University. She obtained her Ph.D. in Plant Science from the Faculty of Land and Food Systems at the University of British Columbia (UBC) in 2017, where her doctoral research laid the foundation for her expertise in plant-pest interaction. Following her Ph.D., she completed postdoctoral training at UBC, further advancing her skills in plant health and ecology. At ISH, Dr. Ma has established a dynamic research program that bridges fundamental and applied sciences to support the sustainability and resilience of horticultural production systems. Her work spans five broad and interconnected areas: agri-tech innovation, where she applies emerging technologies, including data-driven tools, UV-C, dynamic LED lighting, controlled environment systems, and automation, to advance sustainable crop production, plant health management, with a focus on reducing reliance on chemical pesticides; bioproduct development, where she investigates beneficial microbes and biostimulant for pest suppression and plant promotion; secondary metabolites of plants and fungi, exploring their production and potential applications in agriculture; and fungal endophytes, examining their diversity and roles in enhancing plant growth, stress tolerance, and disease resistance. Together, these areas of research contribute both to advancing scientific understanding and developing practical, technology-driven solutions for growers facing challenges in pest management, crop productivity, and environmental sustainability. In addition to her research, Dr. Ma is actively engaged in mentoring postdoc researchers, graduate and undergraduate students, and training the next generation of horticultural professionals. Her work at KPU reflects a strong commitment to collaboration with industry partners, academic peers, and growers, translating research into practice to ensure that innovations in plant science, agri-tech, and pest management are accessible, applicable, and impactful for the horticulture sector in British Columbia and beyond.

Elizabeth Hudgins
Vice President

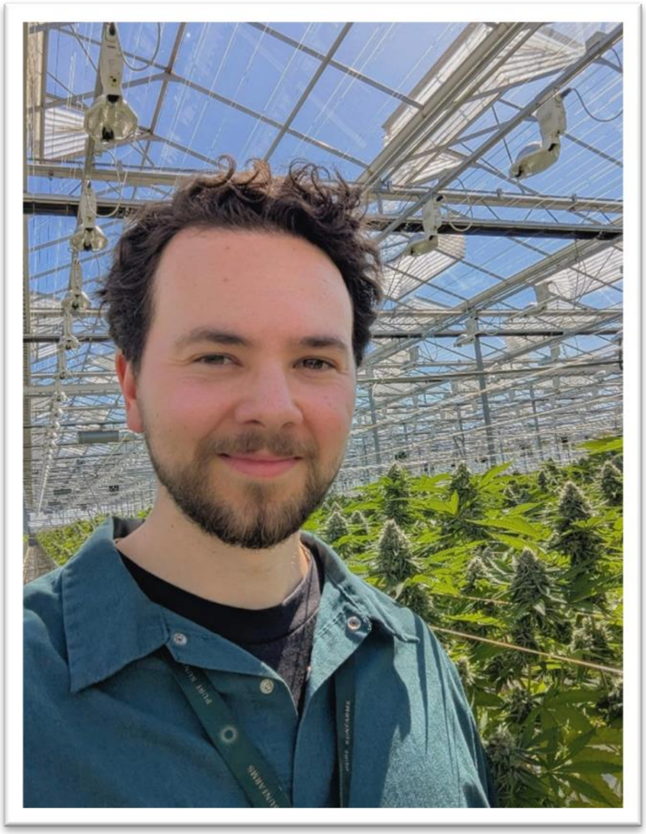
Elizabeth Hudgins is a plant pathologist who has worked as a plant disease diagnostician for many years at Oklahoma State University and the BC Ministry of Agriculture and Food. She has a BSc from the University of Toronto and a MS from Michigan State University in plant pathology where her research focused on a soil fungal disease of celery. She supported biopesticide research at the Institute for Sustainable Horticulture for several years and has been teaching for the Vancouver Master Gardener Program since 2016. Currently, she is involved in citizen science and public education and loves sharing her passion for plant problems and the art and science of diagnosis.

Tammy McMullan

Treasurer

Tammy McMullan is a Senior Lecturer at Simon Fraser University, where she has taught a wide range of courses since 1988, including graduate-level field courses in pest management. Over her career, she has held several Research Assistant positions with Agriculture Canada, Forestry Canada, Applied Bio-Nomics, and the Ministry of Environment's Pesticide Management Branch, contributing to numerous projects on a variety of insect pests. Tammy has been an active leader in the entomological community, serving as Director, Vice-President, President, and now Past President of the Entomological Society of BC. Her involvement with the PPMABC Executive began as a Student Representative, followed by service as Secretary, and since 2006, she has held the role of Treasurer.

Liam Buirs



Secretary

Liam is currently building out the IPM program at Pure Sunfarms and conducting research to optimize plant health. He graduated from Simon Fraser University with a Master of Science degree in 2024. He studied at the Department of Biological Sciences in the Plant Biotechnology- Punja Lab. His passion lies in innovation and optimization of sustainable horticultural production systems.

Kylie Pound

Membership Director & Webmaster

Kylie received a diploma in Horticulture technology, Sustainable Crop Production from Kwantlen Polytechnic University and is currently in her 4th year at KPU pursuing a degree in Plant Health. She is interested in entomology and have worked for the CFIA the past two summers working with the invasive insect survey program.

Mehrdad Mohammadiani

Pesticulars Editor

Mehrdad received his Master's degree from the Department of Microbiology at the University of Manitoba. His research focused on plant pathogens and plant–microbe interactions, aiming to improve soil and plant health. He investigated how microbial communities interact within the soil, how these interactions are shaped by agricultural practices and physical soil properties, and how they ultimately contribute to soil health.