



The Canadian Tri-Society meeting

JUNE 17-21 2023, Ottawa

Agroecosystem resiliency under a changing climate.

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Message from the Chair of the Organizing Committee

Dear colleagues, on behalf of the Organizing Committee, I am honoured and delighted to welcome you to this Canadian Tri-Society 2023 Conference with the Canadian Phytopathological Society (CPS), the Canadian Society of Agronomy (CSA) and the Canadian Society for Horticultural Science (CSHS) on June 17th to 21st 2023 at the Delta hotel, Ottawa, ON. This meeting will bring together researchers in plant science with a thematic on “Agroecosystem resiliency under a changing climate.” There will be scientific workshop tours on Sunday and Wednesday, Special sessions, Plenary session, Symposium and 14 sessions programmed daily from Monday to Wednesday from 8am to the evening with 2 poster sessions in the evening on Monday, Tuesday. Our program features talks from keynote speakers and societies awardees on the topics of Plant-Soil health and Innovations in Agronomy, Genetics biotech and breeding, Climate change, Disease Management of Horticultural Crops, Nutrient Management, Sustainable Disease management tools, Clubroot, Biotic and Abiotic Challenges, Emerging/novel tools for plant pathogen diagnosis, Obligate biotrophic pathogens and soil borne diseases, Biovigilance and approach for emerging and novel phytopathogens, and Long-term studies: Soil and plant. We will have special sessions and activities which will offer opportunities for professionals working in plant sciences to discuss the latest research, learn from peers and expand their knowledge. These networking opportunities can help move research forward and enhance the careers of the participants. There will be rooms for students to have competitions, oral and poster sessions and a special 3 minute talks activities and scientific paper workshop. We will also have rooms with planned student activities, reception and banquet. I want to thank all the meeting committees and chairs and our sponsors who have helped to support our event. We could not have a successful conference without you. Thanks a lot for your participation in this meeting that was originally planned in 2021. We received over 200 abstracts and will have a program very full to allow everyone to present with more than 100 talks and 100 posters and will see over 250 attendees. Your participation makes this event a success, thank you! I wish you a great week in Ottawa conference and hope you will also enjoy visiting the National Capital region. Very happy to see you in person. Have a good meeting!



Dr. Guillaume J. Bilodeau

Chair of the Organizing Committee

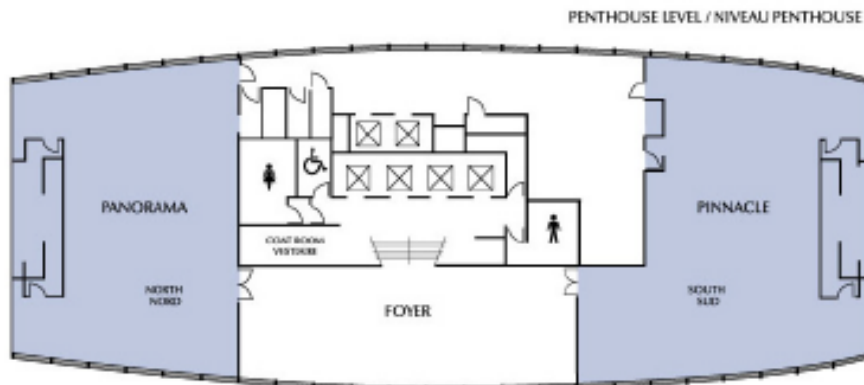
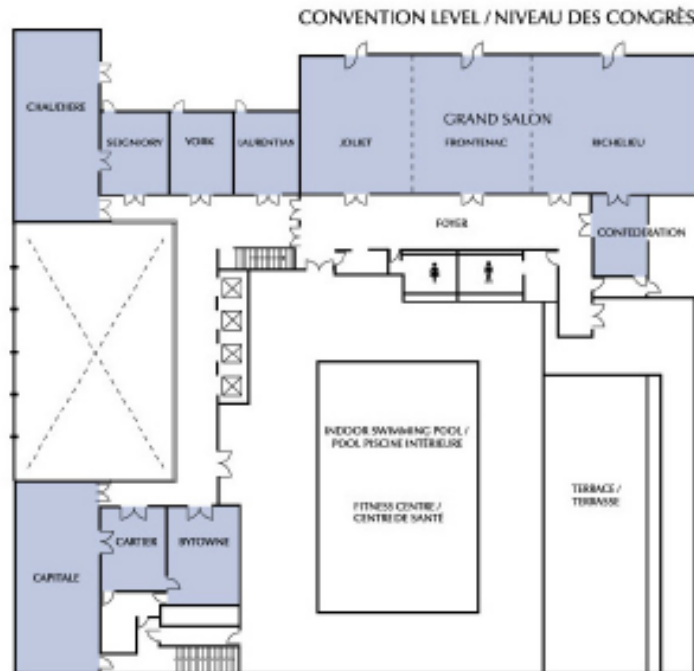
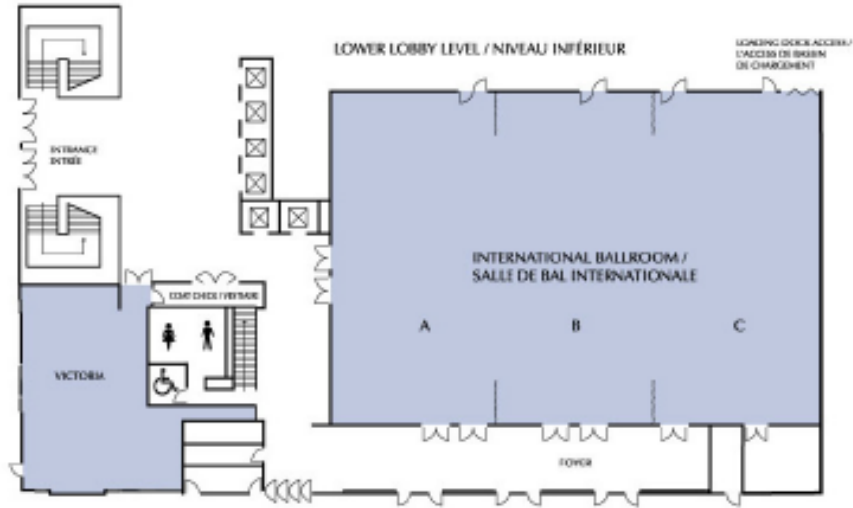


Program at a glance

Pre-meeting	Sunday June 18th	Monday June 19th	Tuesday June 20th	Wednesday June 21st
	8:00—14:00 Tour 1: Ottawa RDC Herbaria, culture & insect collections Load bus: Delta Lobby	8:00—10:20 Plenary session: Agroecosystem resiliency under a changing climate (Ballroom A) *10:00—10:20. Coordination in Plant Health (Brittany Day & Jaimie Schnell) *10:20—10:35. D-mark L7 Informatics (Vasu Rangadass)	8:00—9:30 Symposium 1-CPS: Emerging/novel tools for plant pathogens diagnostics-1 (Ballroom AB)	8:00—9:30 Symposium 2- CSHS: Controlled Environment Agriculture CSHS - (Ballroom AB)
		10:40—12:10 Session 1: Plant-Soil health and Innovations in Agronomy-1 (Ballroom A)	9:30—11:00 Session 5a : Nutriment Management (Pinnacle) Session 5b : Sustainable Diseases management tools: Bioproducts, cultural practices and prediction modeling-1 (Panorama)	9:30—11:00 Session 9 : Sustainable Diseases management tools: Bioproducts, cultural practices and prediction modeling-2 (Pinnacle) Session 10: Plant soil health and innovation in agronomy-2 (Panorama)
			11:00—12:30 Special session: Communicating our science to the general public and policymakers (Ballroom AB)	11:00—12:30 Equity, Diversity and Inclusion (EDI) (Ballroom AB)
		12:00—13:00 Lunch (Ballroom AB foyer)	12:30—14:30- Lunch (Ballroom AB foyer) CPS Business Meeting (Ballroom AB) CSHS Business Meeting (Pinnacle) 12:30—13:15: CSA Business Meeting (Panorama) 13:15—14:30 CSA-Distinguished Agronomist & Genetics and Breeding 1b (Panorama)	12:30—14:30 Lunch (Ballroom AB foyer) Incoming CPS meeting: Board members only (Bytown room)
	8:00—19:00 Registration desk open 18th-21st	13:15—14:45 Session 3: Climate change and biodiversity (Panorama) Session 4: Disease Management of Horticultural Crops (Pinnacle)	14:30—15:45 Workshop 1-CSA: Practical carbon capture/ GHG emission measurements: Methods, Implementation and Uses (Panorama) Session 6: Clubroot disease (Pinnacle)	13:00—16:00 Workshop 2-CSA-Tour 14:30—16:00 Session 11: Obligate biotrophic pathogens and soil-borne diseases (Pinnacle) Session 12: Biovigilance approach for Emerging and novel phytopathogens (Panorama)
	16:00—1800	15:00—16:00 Scientific Paper Workshop - Canadian Journal of Plant Science: Improve your chance of getting published (Ballroom A)	15:45—17:15 Session 7: Biotic and Abiotic Challenges (Panorama) Session 8: Emerging/novel tools for plant pathogens diagnostics-2 (Pinnacle)	16:00—17:30 Session 13: Genetics, biotechnology, and breeding-2 (Pinnacle) Session 14 : Long-term studies: Soil and plant (Panorama)
		16:00—17:00 Book launch & Networking (Keith Seifert) (Ballroom A) 16:15—18:00 Poster session 1 (Grand Salon)	17:15—19:00 Poster session 2 (Grand Salon)	17:35—18h:20 Closure of the meeting (Ballroom AB)
18:00-21:00 Board members only CPS- FAC (Capitale)	19:00—22:00 Welcome reception (Ballroom A)	18:00—19:00 Student activity 3 min talks (Ballroom A) 20:00—23:30 Student social	19:00—22:00 Banquet Ballroom AB)	18:15—19h:00 Posters removal



Floor plan





Scientific Program Schedule **Saturday, June 17**

Pre-meeting

Time	Saturday, June 17	Location
18:00–21:00	Board members only CPS-FAC	Capitale room

Scientific Program Schedule **Sunday, June 18**

Time	Sunday, June 18	Location
8:00–14:00	Tour 1: Ottawa RDC Herbaria, culture & insect collections	Load bus: Delta Lobby
8:00–19:00	Registration desk open	
16:00–18:00	Outgoing board CPS * Board members only	Capitale room
19:00–22:00	Welcome reception	Ballroom A



Scientific Program Schedule Monday, June 19

Time	Abst. no.	Monday, June 19	Location
8:00–10:20		Plenary session: Agroecosystem resiliency under a changing climate Moderators: Guillaume Bilodeau (Welcome), Mamadou L. Fall, Youbin Zheng and Jamie Larsen	Ballroom A
8:00	1	Amélie Gaudin – Building Agroecosystem Resiliency to a Changing Climate	
8:45	2	Neil Mattson – Optimizing plant quality, environmental, and socioeconomic outcomes of controlled environment agriculture crops	
9:30	3	Mario Tenuta – The Evolving Role of Nitrogen Management in Crop Production	
10:00–10:20		Brittany Day & Jaimie Schnell – Coordination in Plant Health	
10:00–10:35		Vasu Rangadass – D-mark L7 Informatics	
10:40–12:10		Session 1: Plant-Soil health and Innovations in Agronomy-1 Moderators: Raphael Ofoe and Kelly Turkington	Ballroom A
10:40	4	Thomas (Kelly) Turkington – The impact of row spacing, seeding rate, and fungicide timing on the severity of leaf disease, fusarium kernel damage, deoxynivalenol, and productivity of spring wheat.	
10:55	5	Thomas Forge – Utility of organic amendments for managing root-lesion nematodes prior to replanting apple orchards	
11:10	6	Natalie LaForest – Investigating the role of <i>Pterostichus melanarius</i> in agricultural pest predation in wheat (<i>Triticum aestivum</i>) and hemp (<i>Cannabis sativa</i> L.) in Alberta	
11:25	7	Efoo Bawa Nutsukpo – Quality indices of grape juice can be altered by varying rates of pyroligneous acid	
11:40	8	Raphael Ofoe – Metabolomic analysis revealed coordinated regulation of central carbon metabolism in pyroligneous acid-treated tomato under aluminum stress	
11:55	9	Griffin Bailey – Potato Early Dying Complex: management and identification in Ontario potato soils	
10:40–12:10		Session 2: Genetics, biotechnology, and breeding-student-1 Moderators: Jaswinder Singh and Bourlaye Fofana	Panorama
10:40	10	Yishan Zhang – Genetic mapping of aggressiveness in <i>Fusarium graminearum</i> , the cause of Fusarium head blight in durum wheat	



10:55	11	Vincent Fetterley – Introgression of stripe rust resistance from spelt wheat to Canada Western Red Spring (CWRS) wheat is complicated by segregation distortion	
11:10	12	Keval Shah – Identification of resistance in hexaploid <i>Brassica</i> against <i>Leptosphaeria maculans</i> and introgression in <i>Brassica napus</i>	
11:25	13	Sijan Pandit – RNAseq study of partially resistant and susceptible pea lines upon <i>Aphanomyces euteiches</i> infection	
11:40	14	Erika Dort – Development of plasmid transformation and CRISPR/Cas9 gene editing systems in forest <i>Phytophthora</i> pathogens	
11:55	15	Ana Laura Achilli – Genetic gains in grain yield and agronomic traits in Argentinian durum wheat	
12:00–13:00		Lunch	Ballroom AB foyer
13:15–14:45		Session 3: Climate change and biodiversity Moderators: Claire Gahagan and Wen Chen	Panorama
13:15	16	Xiaoyang Zhu – Corn disease shifts in Ontario from 1998 to 2022	
13:30	17	Jazeem Wahab – SWEET POTATO: Climate Change Opens a New Opportunity for the Prairies	
13:45	18	Bourlaye Fofana – Diploid potatoes in changing climate biotic and abiotic challenges	
14:00	19	Claire Gahagan – Tillage and crop rotation effects on soil static abiotic properties and oomycete communities in different soil layers.	
14:15	20	Malina Thilakarathna – Effect of drought stress on symbiotic nitrogen fixation, soil nitrogen availability, and soil health parameters in forage legumes	
14:30	21	Chunxiao Yang – Genome-wide association studies (GWAS) of root architectural traits in a large collection of <i>Brassica</i> accessions	
13:15–14:45		Session 4: Disease Management of Horticultural Crops Moderators: Maria Roy and Shawkat Ali	Pinnacle
13:15	22	Lawrence Kawchuk – Blackleg diversity and biocontrol in potato from western Canada	
13:30	23	Shawkat Ali – Plant defense elicitors can reduce the use of chemical fungicides and alter the microbiome structure and composition of apple fruit	
13:45	24	Maria Roy – Evaluating biocontrol potential of fungal endophytes isolated from healthy mature apple (<i>Malus domestica</i>) trees against apple replant disease	
14:00	25	Andrea Rether – Cross-resistance of <i>Clariireedia jacksonii</i> to DMI fungicides	



14:15	26	Ethan Stratford – Determining the identity and frequency of foliar pathogens on <i>Vicia faba</i> L. in Saskatchewan.	
14:30	27	Zohralyn Homulle – Intercropping as a sustainable alternative to reduce late blight infestation in potato – a search for mechanisms.	
15:00–16:00		Scientific Paper Workshop - Canadian Journal of Plant Science: Improve your chance of getting published	Ballroom A
16:00–17:00		Book launch & Networking by Keith Seifert	Ballroom A
16:15–18:00		Poster session 1 (P1 to P50)*	Grand Salon
18:00–19:00		Student 3 Minute Thesis Session	Ballroom A
20:00–23:30		Student Trivia and Networking Night	Spin Kitchen & Bar

* Posters need to be installed on Monday morning and removed on Tuesday morning. Grand Salon will be accessible only on Sunday for Sponsors or poster setup and not Saturday.

👉 For AAFC attendees, please join us for an informal gathering organized by the Plant Health Protection portfolio team. The gathering will be held in the Capital room.

Message from François Chretien.

Time and location: Monday June 19th, 17:00–18:30, Capital room.



Scientific Program Schedule Tuesday, June 20

Time	Abst. no	Tuesday, June 20	Location
8:00–9:30		Symposium 1-CPS: Emerging/novel tools for plant pathogens diagnostics-1 Moderator: Guillaume Bilodeau and Vahid Jalali Javaran	Ballroom A-B
8:00	28	Guillaume Bilodeau – High throughput sequencing: Overview, challenges perspectives for plant pathogens diagnostic	
8:15	29	Jayasankar Subramanian – Black Knot resistance in plums: A multi-omic approach to address genetic resistance for an unusual disease	
8:30	30	Junye Jiang – Development and evaluation of a loop-mediated isothermal amplification (LAMP) method for <i>Synchytrium endobioticum</i> (potato wart) detection	
8:45	31	Chamath Minuka Hewapathirana – High throughput sequencing (HTS) of Bees and Pollen for Bio-surveillance of Agricultural and Invasive Pathogens	
9:00	32	Sachithrani Kannangara – RNAseq-based identification of a novel virus and novel virus variants in farmed blueberries in British Columbia	
9:15	33	Vahid Jalali Javaran – Optimizing dsRNA extraction toward rapid virus detection using nanopore sequencing	
9:30–11:00		Session 5a: Nutriment Management Moderators: Yutong Jiang and Hiroshi Kubota	Pinnacle
9:30	34	Mumtaz Cheema – Effects of nitrogen stabilizers on the growth, yield, and forage quality of crops grown in short rotation on podzols in boreal climate	
9:45	35	Anagha Pradeep Kumar – Seafood biostimulant effect on seed germination, plant growth, and productivity of Kale (<i>Brassica oleracea</i> var. <i>sabellica</i>)	
10:00	36	Hiroshi Kubota – Yield and pre-malting grain quality of malting barley varieties in response to increasing nitrogen rates in western Canada	
10:15	37	Farzana Yasmin – Effect of cover cropping strategies on subsequent grain corn (<i>Zea mays</i> L.) yield in no-till and fall strip-till systems.	
10:30	38	Polly Musayidizi – Long-term impacts of cover crops on nitrogen dynamics in grain corn (<i>Zea mays</i> L.) in southwestern Ontario.	
10:45	39	Yutong Jiang – Water-conducting roots responsible for nitrogen uptake in maize (<i>Zea mays</i>)	
9:30–11:00		Session 5b: Sustainable Diseases management tools: Bioproducts, cultural practices and prediction modeling-1	Panorama



		Moderators: Imane Laraba and Jim Menzies	
9:30	40	Meaghan Mechler – Mitigating apple replant disease with biocontrol soil treatments	
9:45	41	Chloe Shum – Metabolomics-based Profiling of Resistant Japanese Plums Infected with Black Knot Fungus	
10:00	42	Mercy Akuma – CRISPR/Cas9 gene knockout studies reveal the involvement of phenazine production in the antifungal activity of the novel <i>Pseudomonas chlororaphis</i> strain S1Bt23	
10:15	43	Leticia Reis – Thinning response of gala to metamitron applied at different stages of fruitlet development	
10:30	44	Emily McFaul – Insensitivity of <i>Stemphylium vesicarium</i> to two FRAC 7 fungicides in Ontario in 2021–2022.	
10:45	45	Haitian Yu – Enhancing soil health and root rot suppression in canola (<i>Brassica napus</i>): an investigation into fungal communities and chemical-physical properties of field soils	
11:00–12:30		Communicating our science to the general public and policymakers	Ballroom A-B
12:30–14:30		Lunch (Participants will need to bring their lunch to the business meeting room)	Ballroom AB foyer
12:30–14:30		Lunch: CPS Business Meeting	Ballroom A-B
12:30–14:30		Lunch: CSHS Business Meeting	Pinnacle
12:30–13:15		Lunch: CSA Business Meeting	Panorama
13:15–14:30		CSA-Distinguished Agronomist & Genetics and Breeding 1b	Panorama
13:15	46	Pierre Hucl – The rewards of tilting at research dogma	
13:45	47	Anjan Neupane – Genetic analysis of yield and yield stability traits in spring wheat across diverse Canadian environments	
14:00	48	Helen Booker – Underlying Mechanisms of FHB Susceptibility and Resistance in Wheat: Insights from a Transcriptome-Based Analysis	
14:15	49	Raja Khanal – Pathogenicity of <i>Fusarium graminearum</i> and <i>F. poae</i> causing Fusarium head blight in barley under controlled conditions	
14:30–15:45		Workshop 1-CSA: Practical carbon capture/ GHG emission measurements: Methods, Implementation and Uses	Panorama
14:30–15:45		Session 6: Clubroot disease Moderators: Emilee Stofie and Stephen Strelkov	Pinnacle
14:30	50	Stephen Strelkov – Clubroot in the Canadian canola crop: two decades into the outbreak	



14:45	51	Yoann Aigu – Understanding the fitness cost of resistance-breaking capacity in <i>Plasmodiophora brassicae</i>	
15:00	52	Sandra Marcela Velasco Cuervo – Efficient identification of <i>Plasmodiophora brassicae</i> pathotypes using molecular tools	
15:15	53	Emilee Storfie – The identification of an improved heterologous protein expression system for assessing the function of <i>Plasmodiophora brassicae</i> effectors	
15:30	54	Keisha Hollman – The virulence of <i>Plasmodiophora brassicae</i> on canola varieties with ‘second-generation’ clubroot resistance in Canada	
15:45–17:15		Session 7: Biotic and Abiotic Challenges Moderators: Rylie McConachie and Jatinder Sagha	Panorama
15:45	55	Jesse MacDonald – Sudden apple decline in British Columbia: a potential link between fungal cankers, invasive Sesiidae moths, and abrupt hydraulic failure.	
16:00	56	Sharandeep Singh – Genetic mapping of resistance to Fusarium head blight and DON accumulation in wheat landrace Wat.1190580	
16:15	57	Mohammed Antar – Microbe-coating fertilizers for sustainable biomass production and yield enhancement: Corn and potato case studies	
16:30	58	Riley McConachie – Winter wheat genotype- <i>Fusarium graminearum</i> isolate interactions using the detached wheat head bioassay method	
16:45	59	Vinuri Weerasinghe – Changes in barley seed bacterial endophytes under Fusarium head blight infection	
17:00	60	Roksana Saleh – Yield, Quality, and Antioxidant Enzyme Activities of Microgreens in Response to different Blue: Red LED Light Ratios and Growing Media	
15:45–17:15		Session 8: Emerging/novel tools for plant pathogens diagnostics-2 Moderators: Edward McNab and Sean Li	Pinnacle
15:45	61	Jonathan Griffiths – Metagenomics monitoring of plant viruses in Canadian agricultural fruit production systems through honey bee pollination	
16:00	62	Shimaila Ali – In search of a decision support system: A rapid assay to detect a soil’s potential to cause Aphanomyces root rot	
16:15	63	Edward McNab – A Novel Field Assay to Detect DMI Fungicide Resistance in <i>Clariireedia jacksonii</i>	
16:30	64	Ziwei Tang – ER-localized Heat shock protein 70s facilitate Turnip mosaic virus infection in Arabidopsis	
16:45	65	Xiang (Sean) Li – Closely-related pathogen classification using Clasnip.com based on gene or genomic sequences	
17:15–19:00		Poster session 2 (P51 to P100)**	Grand Salon



19:00–22:00		Banquet	Ballroom A-B
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**** Posters need to be installed on Tuesday morning and removed on Wednesday by 19:00.**



Scientific Program Schedule Wednesday, June 21

Time	Abst. no	Wednesday, June 21	Location
8:00–9:30		Symposium 2- CSHS: Controlled Environment Agriculture CSHS Moderator: Neil Mattson	Ballroom A-B
8:00	66	Youbin Zheng – Controlled environment cultivation of <i>Cannabis sativa</i>	
8:15	67	Ashleigh Ahrens – Flowering <i>Cannabis sativa</i> under photoperiods longer than 12-h can increase yield and potency	
8:30	68	Serge Levesque – Optimization and Scalability of Regenerative in situ Electrochemical Hypochlorination for Closed-Loop Hydroponics	
8:45	69	Ajwal Dsouza – Optimizing environment conditions enhances yield and nutritional quality of hydroponic barley (<i>Hordeum vulgare</i> cv. Esma) fodder	
9:00	70	Sparsha Chada – Central carbon metabolic response of Mexican mint (<i>Plectranthus amboinicus</i>) to varying watering regimes	
9:15	71	Valerie Gravel – Effect of light quality and extended photoperiod on flower bud induction during transplant production of day-neutral strawberry cultivars	
9:30–11:00		Session 9: Sustainable Diseases management tools: Bioproducts, cultural practices and prediction modeling-2 Moderators: Anas Eranthodi and Sara Stricker	Pinnacle
9:30	72	Zayda Morales Moreira – <i>Pseudomonas brassicacearum</i> control of the root rot pathogen <i>Aphanomyces euteiches</i> via a novel nitroimidazole antibiotic	
9:45	73	Anas Eranthodi – Cereal-pulse rotations and <i>Fusarium avenaceum</i> pathogenicity	
10:00	74	Maria Oviedo-Ludena – Effect of diverse crop sequences on Fusarium head blight and leaf spot diseases of wheat in the Canadian Prairies	
10:15	75	Liam Buir – Suppression of <i>Botrytis cinerea</i> Pers. induced bud-rot on greenhouse cultivated cannabis (<i>Cannabis sativa</i> L.) via enhanced air circulation and Rootshield-HC (<i>Trichoderma harzianum</i> Rifai.) spray applications	
10:30	76	Joshua Molligan – Investigating the impact of LED lighting on <i>Botrytis cinerea</i> in a controlled environment: A photomorphogenic approach	
10:45	77	Zamir Punja– Spread and impact of Hop Latent Viroid on growth and quality of cannabis (<i>Cannabis sativa</i> L.) plants	
9:30–11:00		Session 10: Plant-soil health and innovation in agronomy-2 Moderators: Keisha Hollman and Kui Liu	Panorama



9:30	78	Kui Liu – Improving cropping system performance through rotation diversification with pulse crops	
9:45	79	Dhanuja Abeysingha – Cold plasma seed treatment as a potential agronomic application to increase plant growth, development, and yield in Pea (<i>Pisum Sativum</i>)	
10:00	80	Laura Van Eerd – Corn (<i>Zea mays</i> L.) grain yield gains from long-term cover cropping: evidence of increase nitrogen availability possibly due to increased soil organic matter.	
10:15	81	Joshua Nasielski – Linking plant-level measurements to crop-level outcomes: plant growth regulator effects on lodging in winter wheat	
10:30	82	Pramod Rathor – Humic acid improves the growth of wheat seedlings by modulating the expression of genes involved in auxin and cytokinin biosynthesis pathways	
10:45	83	Tarlok Sahota – Effect of Apex, Top Phos, EXCELIS MAXX and Bio-Stimulants on canola in Northwestern Ontario	
11:00–12:30		Equity, Diversity and Inclusion (EDI)	Ballroom A-B
12:30–14:30		Lunch	Ballroom AB foyer
12:30–14:30		Lunch Incoming CPS meeting: Board members only	Bytown room
13:00–16:00		Workshop 2-CSA-Tour	Panorama
14:30–16:00		Session 11: Obligate biotrophic pathogens and soil-borne diseases Moderators: Umbrin Ilyas and Dilantha Fernando	Pinnacle
14:30	84	Dilantha Fernando – Understanding the interaction between <i>Verticillium longisporum</i> and canola, causing verticillium stripe: the new soil-borne disease creating challenges to the industry	
14:45	85	Vikram Bisht – Verticillium wilt early dying status in Manitoba potatoes, 2020-2022	
15:00	86	Brian Duarte – Unravelling the life cycle of <i>Cronartium ribicola</i> , the causal agent of white pine blister rust	
15:15	87	Atta Ur Rahman – Understanding the causative agents of potato early dying disease in Alberta: a focus on <i>Verticillium dahliae</i> , <i>V. albo-atrum</i> , and <i>Colletotrichum coccodes</i>	
15:30	88	Kun Lou – Race characterization and strain-level disease diagnosis of the <i>Puccinia striiformis</i> f. sp. <i>tritici</i> population in western Canada from 2017 to 2022	
15:45	89	Umbrin Ilyas – Soil microbiome and calcium content in relation to the risk of cavity spot on carrots	



14:30–16:00		Session 12: Biovigilance approach for Emerging and novel phytopathogens Moderators: Jeffrey Pepin and Odile Carisse	Panorama
14:30	90	Odile Carisse – Challenges and possible solutions for moving towards sustainable crop protection: How can biovigilance help to structure the transition?	
14:45	91	Émilie D. Tremblay – Fungal diversity, surveillance and incidence forecasting of crop-associated phytopathogens using metabarcoding of aerial spore and suction traps	
15:00	92	Xiang (Sean) Li – Finding a needle in a haystack Using NGS and associated bioinformatics toolkit	
15:15	93	Tom Hsiang – Naturally occurring propiconazole-tolerant fungal isolates in the phyllosphere of <i>Agrostis stolonifera</i>	
15:30	94	Jeffrey Pepin – Screening of grain and oilseed using a combination of long read sequencing and qPCR assays for bio-surveillance of phytopathogens	
15:45	95	Bradley Calder – Assessing the variability of <i>Sclerotinia sclerotiorum</i> isolates collected from different host crops across Canada	
16:00–17:30		Session 13: Genetics, biotechnology, and breeding-2 Moderators: Sparsha Chada and Lord Abbey	Pinnacle
16:00	96	Sepideh Torabi – Unravelling resistance mechanisms: Dual RNA sequencing of soybean and soybean Cyst Nematode (SCN)	
16:15	97	Raman Dhariwal – Insights from the first FHB-resistant wheat cultivar AAC Tenacious	
16:30	98	Soren Seifi – Cannabis landraces and exotic germplasm as a great source for resistance breeding against powdery mildew disease	
16:45	99	T. Fatima Mitterboeck – Understanding Potato Greening through ‘omics approaches	
17:00	100	Hari Poudel – An insight into sainfoin breeding in western Canada: challenges and achievements.	
17:15	101	Yousef Papadopoulos – Evaluation of new breeding lines of alfalfa, birdsfoot trefoil and red clover for adaptation to low pH soil conditions	
16:00–17:30		Session 14: Long-term studies: Soil and plant Moderators: Atta Ur Rahman and Sean Westerveld	Panorama
16:00	102	Syama Chatterton – Changes in pea yield and root rot levels in field trials naturally-infested with <i>Aphanomyces euteiches</i> in Alberta and Saskatchewan	
16:15	103	Sean Westerveld – Survey and management of plant parasitic nematodes in Ontario ginseng	



16:30	104	Noureddine Benkeblia – Climate change and crops health in the Caribbean: Threats and challenges	
16:45	105	Bruce Gossen – Survival of <i>Plasmodiophora brassicae</i> over time in trials on the Canadian Prairies	
17:00	106	Michelle Hubbard – Pea-brassica intercropping does not ameliorate root rot in pea, but sometimes provides yield benefits	
17:15		Closure of the meeting	Ballroom A-B
18:15–19:00		Poster removal	Grand Salon