



Canadian Weed Science Society
Société canadienne de malherbologie



Canadian Society of Agronomy
La Société Canadienne d'Agronomie

Joint Meeting of the CWSS-SCM and CSA-SCA
November 14th to 18th 2022

Réunion annuelle
14 au 18 novembre 2022

Halifax Marriott Harbourfront Hotel
Halifax, Nova Scotia



This year the Joint Meeting of the CWSS-SCM and CSA-SCA is collaborating with Biomass Canada Cluster (BMC) to offer a one-day symposium: **Developing Canadian Biomass to Power the Canadian Bioeconomy.** on November 14th, 2022 in Halifax (Halifax Marriott Harbourfront Hotel), Nova Scotia.

BMC, a not-for-profit organization, was developed by BioFuelNet Canada, with support from the Canadian Agricultural Partnership's, AgriScience Program (\$8.3 million) and a set of industry partners (\$3.9 million). BMC's mandate is to mobilize Canada's agricultural biomass resources for bioenergy and bioproducts production by de-risking and commoditizing agricultural biomass in all regions of Canada, while mitigating and adapting to a changing climate.

The roles of BMC include: determining national research priorities regarding biomass production, developing multi-institutional and multi-disciplinary R&D programs in biomass production and associated supply chains. BMC also acts as a coordinator to bridge the research community and industry partners, deliver effective knowledge transfer programs (for example - online course), train and develop highly qualified professionals (HQP) with a range of research skills for the biomass sector.

A detailed program for the symposium is available on the conference registration site (<https://event.fourwaves.com/2022-joint-meeting-cwss-csa>) under the Program tab at the top of the page.

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SUMMARY OF KEY DATES

Date	Details
August 15, 2022	Registration opens!
August 31, 2022	CSA-SCA Photo contest entry deadline
September 15, 2022 This has been extended to Sept. 30, 2022	Title submissions for posters, oral presentations, graduate student presentations, and provincial/regulatory reports
October 1, 2022	Early registration ends
	CWSS-SCM Scholarships and Awards application deadlines <ul style="list-style-type: none"> • Graduate Student Scholarships • CWSS-SCM Outstanding Industry Member Award • Excellence in Weed Science Award • CWSS-SCM Fellow • CWSS-SCM Meritorious Service • Excellence in Weed Extension Award
October 15, 2022	Submission deadline for abstracts and provincial/regulatory reports
	CSA-SCA Ali Navabi Graduate Student Travel Award application deadline
October 28, 2022	CWSS-SCM photo contest entry deadline
October 31, 2022	The last day for reserving rooms in the Room Block for conference rates
November 1, 2022	Last day to register for the conference

2022 CONFERENCE FEES

		Conference Fee	Membership Fee	Total (per person, includes HST)*
Early Registration (before October 1) Includes plenary session workshops, program sessions, industry reception, awards banquet, and all scheduled breaks and meals	CWSS-SCM Member	\$650.00	\$150.00	\$897.50
	CSA-SCA Member	\$650.00	N/A	\$747.50
	CSA-SCA Non-member	\$750.00	N/A	\$862.50
	Retired CWSS-SCM	\$0.00	\$0.00	\$0.00
	CWSS-SCM and CSA-SCA Graduate Students	\$325.00	\$0.00	\$373.75
Late Registration (after October 1) Includes same as early registration	CWSS-SCM Member	\$750.00	\$150.00	\$1012.50
	CSA-SCA Member	\$750.00	N/A	\$862.50
	CSA-SCA Non-member	\$850.00	N/A	\$977.50
	Retired CWSS-SCM	\$0.00	\$0.00	\$0.00
	CWSS-SCM and CSA-SCA Graduate Students	\$425.00	\$0.00	\$488.75
Single-day Registration Includes access to all events, breaks, and meals scheduled for the day of registration EXCEPT the Awards Banquet. Purchase Awards Banquet ticket if registering for Wednesday November 16		\$325.00	\$0.00	\$373.75
Grower Day	All participants	\$75.00	N/A	\$86.25
Additional Awards Banquet Tickets		\$100.00	\$0.00	\$115.00

*All conference fees are final. Registration is transferable within an organization but no refunds will be provided.

2022 ANNUAL MEETING AGENDA

Date	Society	Time	Topic/event	Room
Monday November 14	CWSS-SCM/CSA-SCA/BMC	8:00 – 17:00	Conference Registration	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA/BMC	8:00 – 18:00	Commercial exhibits and poster set up	Nova Scotia Foyer
	CWSS-SCM	8:00 – 9:00	CWSS-SCM board meeting breakfast	Nova Scotia A
	CWSS-SCM	9:00 – 17:00	CWSS-SCM board meeting	Nova Scotia A
	CSA-SCA/BMC	8:00 – 8:40	Biomass Symposium Meet & Greet	Nova Scotia B
	CSA-SCA/BMC	8:40 – 8:50	Opening Biomass Symposium: Dr. Girard, Director General, AAFC	Nova Scotia B
	CSA-SCA/BMC	8:50 – 9:00	Welcome Biomass Symposium: Dr. M. Cheema (CSA-SCA President) and Dr. D. Smith (CEO BioFuelNet)	Nova Scotia B
	CSA-SCA/BMC	9:00 – 9:45	BMS Keynote Speaker: Mr. Karampinis	Nova Scotia B
	CSA-SCA/BMC	9:45 – 10:00	BMS Keynote Speaker: Dr. Casler	Nova Scotia B
	CSA-SCA/BMC	10:00 – 10:30	Refreshments	Nova Scotia B
	CSA-SCA/BMC	11:00 – 12:00	BMS Session 1: Agricultural Waste as Biomass for the Bioeconomy	Nova Scotia B
	CSA-SCA/BMC	12:00 – 1:00	Lunch	Nova Scotia B
	CSA-SCA/BMC	13:00 – 14:30	BMS Session 2: Energy Crops as Biomass for the Bioeconomy	Nova Scotia B
	CSA-SCA/BMC	14:30 – 14:45	Refreshments	Nova Scotia B
	CSA-SCA/BMC	14:45 – 16:15	BMS Session 3: Biomass to fuel the Bioeconomy	Nova Scotia B
	CSA-SCA/BMC	16:15 – 17:00	Open Discussion: Facilitator, Dr. D. Smith, CEO BioFuelNet	Nova Scotia B
	CWSS-SCM	17:30 – 18:30	Grad student meet and greet with BOD	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA/BMC	18:30 – 22:00	Sponsorship Acknowledgement and Welcome Reception	Nova Scotia AB

Joint Meeting of the Canadian Weed Science Society and the Canadian Society of Agronomy

November 14 – 18 2022

Date	Society	Time	Topic/event	Room
Tuesday November 15	CWSS-SCM/CSA-SCA	7:00 – 17:00	Registration	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA	7:00 – 8:00	Grad student set up	Nova Scotia CD
	CWSS-SCM/CSA-SCA	7:00 – 8:00	Coffee	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA	8:00 – 8:15	Opening remarks – CWSS-SCM President & CSA-SCA President	Nova Scotia CD
	CWSS-SCM/CSA-SCA	8:15 – 10:00	Grad student presentations	Nova Scotia CD
	CWSS-SCM/CSA-SCA	10:00 – 10:30	Refreshments (authors of even-numbered posters present)	Nova Scotia AB
	CWSS-SCM/CSA-SCA	10:30 – 12:00	Grad student presentations	Nova Scotia CD
	CWSS-SCM/CSA-SCA	12:00 – 13:00	Lunch	Nova Scotia AB
	CSA-SCA	12:00 – 13:00	CSA-SCA Executive Meeting	Halifax C
	CWSS-SCM/CSA-SCA	13:00 – 14:00	Grad student presentations	Nova Scotia CD
	CWSS-SCM/CSA-SCA	14:00 – 15:00	CWSS-SCM & CSA-SCA Workshop 1 – CSP/CJPS (Josephine Sciotino)	Halifax B
	CWSS-SCM/CSA-SCA	15:00 – 15:30	Refreshments (authors of odd-numbered posters present)	Nova Scotia AB
	CWSS-SCM/CSA-SCA	15:30 – 17:00	CWSS-SCM & CSA-SCA Workshop 2 – Stats (Andrew McKenzie-Gopsill)	Halifax B
	CWSS-SCM	18:30	CWSS-SCM President's dinner – by invitation only	Off site
	CWSS-SCM/CSA-SCA	18:30	Dine around	Off site

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Date	Society	Time	Topic/event	Room
Wednesday November 16	CWSS-SCM/CSA-SCA	7:00 – 8:00	2022 and 2023 LAC Meeting	Nova Scotia A
	CWSS-SCM/CSA-SCA	7:00 – 17:00	Registration	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA	7:30 – 9:30	Coffee	Nova Scotia Foyer
	CWSS-SCM/CSA-SCA	8:20 – 8:30	Presidents welcome and LAC announcements	Nova Scotia CD
	CWSS-SCM/CSA-SCA	8:30 – 9:00	Plenary – Arnold Schumann (remotely)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	9:00 – 9:30	Plenary – Louis Longchamps (in-person)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	9:30 – 10:00	Plenary – Athyna Cambouris (in-person)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	10:00 – 10:30	Coffee Break (CWSS-SCM & CSA-SCA)	Nova Scotia AB
	CWSS-SCM/CSA-SCA	10:30 – 11:00	Plenary – Aitazaaz Farooque (in-person)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	11:00 – 11:30	Plenary – Steven Fennimore (in-person)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	11:30 – 12:00	Plenary – Travis Esau (in-person)	Nova Scotia CD
	CWSS-SCM/CSA-SCA	12:00 – 13:00	Lunch (CWSS-SCM & CSA-SCA)	Nova Scotia AB
	CSA-SCA	12:00 – 13:00	CSA-SCA AGM	Halifax A
	CSA-SCA	13:00 – 13:45	2022 Distinguished Agronomist & CJPS Best Paper presentations	Halifax A
	CWSS-SCM	13:00 – 15:00	Corn, soybean, and edible bean	Halifax C
	CWSS-SCM	13:30 – 15:00	Provincial and regulatory reports	Annapolis
	CSA-SCA	14:00 – 15:00	Concurrent Session #1	Halifax A
	CSA-SCA	14:00 – 15:00	Concurrent Session #2	Halifax B
	CWSS-SCM/CSA-SCA	15:00 – 15:30	Light Refreshments	Nova Scotia AB
	CWSS-SCM	15:30 – 17:00	Horticulture and specialty crops	Halifax C
	CWSS-SCM	15:30 – 17:00	Rangeland, forestry, and industrial	Annapolis
	CSA-SCA	15:30 – 17:00	Concurrent Session #3	Halifax A
	CSA-SCA	15:30 – 17:00	Concurrent Session #4	Halifax B
	CWSS-SCM	18:30 – 20:30	CWSS-SCM & CSA-SCA Awards Dinner	Halifax ABC

Visit the Canadian Weed Science Society website at
www.weedscience.ca

Visit the Canadian Society of Agronomy website at
www.agronomycanada.com

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Date	Society	Time	Topic/event	Room
Thursday November 17	CWSS-SCM/CSA-SCA	7:00 – 9:00	Breakfast	Nova Scotia Foyer and Nova Scotia AB
	CWSS-SCM	7:00 – 9:30	CWSS-SCM AGM	Nova Scotia CD
	CSA-SCA	8:30 – 10:00	Concurrent Session #5	Halifax A
	CSA-SCA	8:30 – 10:00	Concurrent session #6	Halifax B
	CWSS-SCM	9:30 – 11:30	Cereals, oilseeds, and pulses	Halifax C
	CWSS-SCM	9:30 – 11:30	Weed biology and ecology	Annapolis
	CSA-SCA	10:00 – 10:30	Coffee	Nova Scotia Foyer
	CSA-SCA	10:30 – 12:00	Concurrent session #7	Halifax A
	CSA-SCA	10:30 – 12:00	Concurrent session #8	Halifax B
	CWSS-SCM	11:00 – 12:00	Commercial display and poster take down	Nova Scotia Foyer
	CWSS-SCM	12:00 – 17:30	CWSS-SCM board lunch and meeting	Nova Scotia A

Date	Society	Time	Topic/event	Room
Friday November 18	CWSS-SCM & CSA-SCA	9:00 – 10:00	Grower Day Registration	Nova Scotia Foyer
	CWSS-SCM & CSA-SCA	9:00 – 10:00	Meet & Greet with light refreshments	Nova Scotia AB
	CWSS-SCM & CSA-SCA	10:00 – 12:00	Session 1: Grower day with various speakers from AAFC, academia, and other specialists	Halifax AB
	CWSS-SCM & CSA-SCA	12:00 – 13:00	Lunch	Nova Scotia AB
	CWSS-SCM & CSA-SCA	13:00 – 15:30	Session 2: Grower day with various speakers from AAFC, academia, and other specialists	Halifax AB

2022 PLENARY SPEAKERS



Dr. Arnold Schumann is a Professor in the Soil, Water and Ecosystem Sciences department, University of Florida, Adjunct Professor in the Faculty of Agriculture, Dalhousie University, and in the School of Sustainable Design Engineering, University of Prince Edward Island. Dr. Schumann has worked with precision agriculture for 21 years. Some of his early research from 2001 focused on ultrasonic mapping of citrus canopy size and the use of electromagnetic induction for mapping shallow groundwater depth. He has worked with researchers at Dalhousie University and blueberry growers in Nova Scotia since 2007 to help develop variable rate sprayers and improve mechanical harvesters for blueberries. In Florida, he successfully developed a variable rate fertilizer applicator for citrus that adjusts fertilizer output based on tree size. The technology was licensed to Chemical Containers Inc. of Florida in 2008, who market the product primarily for citrus, pecan and peach specialty crops. Since 2016 the research efforts were redirected towards the growing arena of artificial intelligence (AI), especially in machine learning and machine vision applications for precision agriculture. New AI research products include smartphone apps for growers, precision herbicide sprayers, and farm robotics.



Louis Longchamps earned his PhD at Laval University working on site-specific weed management exploring the spatial distribution of weeds at the field scale. He followed with postdoctoral studies at Colorado State University working on precision nutrient, seeds, and water management. As a research scientist at Agriculture and Agri-Food Canada, Dr Longchamps continued his work on precision agriculture and conducted workshops on observational research. In his position of assistant professor of digital agronomy at Cornell University, he wants to explore the potential of observational research and on-farm experimentation to accelerate scientific development in agriculture, maintaining productivity while reducing the negative impacts of agriculture on the environment. Dr. Longchamps is the current chair of the On-Farm Experimentation Community of the International Society of Precision Agriculture.



Since 2009, Dr. Cambouris has lead an important research program for Agriculture & Agri-Food Canada (Quebec City) and she is known for her ability to generate new knowledge for the benefit of the agricultural sector mainly related to precision agriculture and potato production. Dr. Cambouris is currently involved in variable rate management of N applications mainly under potato production involving soil and crop sensor systems, remote sensing, geomatics and geostatistics. She conducts research on the delineation of management zones based on the soil and crop sensor systems for potato, corn, switchgrass and forage production. Her expertise with soil sensors related to the spatial variability of soil properties is also well known. For 2002-2022, Dr. Cambouris was the secretary of the board of the International Society for Precision Agriculture (ISPA) and the leader of Precision Nitrogen Management Community of ISPA. She is also the president of the Expert Committee of Precision Agriculture in the province of Québec (2007 – now). She is the author/coauthor of more than 55 scientific publications and four book chapters. She is a member of the: International Society for Precision Agriculture, American Society of Agronomy (ASA), Soil Science Society of America (SSSA), and the *Association Québécoise des Spécialistes en Sciences du Sol*.



Dr. Aitazaz Farooque is working as an Associate Professor & Director - Centre of Excellence in Food Security and Sustainability at the School of Climate Change and Adaptation, University of Prince Edward Island (UPEI). Dr. Farooque's research focuses on fundamental understanding and development of state-of-the-art precision agriculture technologies. Dr. Farooque is actively working on machine vision, application of multispectral and thermal imagery using drone technology, delineation of management zones for site-specific fertilization, deep learning, artificial intelligence, electromagnetic induction methods, remote sensing, sensors for mapping, bio-systems and hydrological modeling, artificial neural network, and analog and digital sensor integration into agricultural equipment for real-time decision making.



Dr. Steve Fennimore is a Professor of Cooperative Extension and Weed Scientist with the University of California, Davis located at Salinas, CA USA. Since 1997, Steve has conducted a research and extension program focused on weed management in vegetables, flowers and strawberries in coastal production areas of California USA. His specialization is in non-chemical weed management for strawberry and vegetable crops. Projects in his lab include automated weed removal, and steam for soil disinfestation. Steve grew up on a vegetable farm in western Oregon. From 1983 to 1993, Steve worked in the Agricultural Chemical industry holding research and development positions in California, Mississippi and Indiana with ICI Americas/Zeneca. He left industry and returned

to graduate school at Purdue University where he received his PhD in weed science in 1997.



Dr. Travis Esau is an Associate Professor at the Department of Engineering in the Faculty of Agriculture, Dalhousie University. Dr. Esau is both a Licensed Professional Engineer and a Professional Agrologist. Dr. Esau is a mechanical engineer specializing in machine systems and automation engineering focusing on agricultural mechanized systems, digital agriculture, precision agriculture, data management, automation of agricultural operations and data-driven decision analysis for complex agricultural and biological systems. Traditional agricultural farming is not sustainable and severely requires new engineering advancements to remain competitive in both local and global markets. His research involving advanced mechanized systems increases farm efficiency and uses environmental resources more effectively. His research team consists of research staff and undergraduate/graduate/postdoc students. Dr. Esau is also involved with graduate student supervision at University of Prince Edward Island where he holds an adjunct position in Sustainable Design Engineering.

2022 CONFERENCE ORGANIZATIONAL COMMITTEES

For further information about the meeting please contact the Chair or a Local Arrangements Committee member as listed below:

Position	Name	Affiliation	Email
First Vice President (LAC Oversight)	Darren Robinson	University of Guelph	drobinso@uoguelph.ca
Local Arrangements Committee	Scott White (Co-Chair)	Dalhousie University	Scott.white@dal.ca
	Kathleen Glover (Co-Chair)	AAFC Kentville	Kathleen.Glover@AGR.GC.CA
	Andrew McKenzie-Gopsill (CWSS-SCM)	AAFC Charlottetown	andrew.mckenzie-gopsill@AGR.GC.CA
	Mumtaz Cheema (CSA-SCA)	Memorial University Grenfell Campus	mcheema@grenfell.mun.ca
	Andrew Burt (CSA-SCA)	AAFC Ottawa	andrew.burt@AGR.GC.CA
Registration	Kristina Polziehn	CWSS-SCM	kristinapolziehn@gmail.com
	Nancy Zubriski	CSA-SCA	nzubriski@gmail.com
Plenary Session	Scott White (Chair)	Dalhousie University	Scott.white@dal.ca
	Mumtaz Cheema	Memorial University Grenfell Campus	mcheema@grenfell.mun.ca
Hotel Liaison	Scott White	Dalhousie University	Scott.white@dal.ca
A/V	Cory Leach	Encore Global	Cory.leach@encoreglobal.com
Crop Life Canada rep	Matt Underwood (east)	Syngenta	Matthew.Underwood@syngenta.com
	Graham Collier (west)	Nufarm	graham.collier@nufarm.com
Program Committee	Darren Robinson, see also CWSS-SCM session chairs	University of Guelph	drobinso@uoguelph.ca
	Jamie Larson (Co-Chair, CSA-SCA)	AAFC Vineland	jamie.larson@AGR.GC.CA

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Graduate Student Presentations	Darren Robinson (Co-Chair, CWSS-SCM)	University of Guelph	drobinso@uoguelph.ca
	Andrew Burt (Co-Chair, CSA-SCA)	AAFC Ottawa	andrew.burt@AGR.GC.CA
	Malinda Thilakarathna (CSA-SCA)	University of Alberta	malinda.thilakarathna@ualberta.ca
Grad Student rep	William Kramer (CWSS-SCM)	Colorado State	W.kramer@colostate.edu
	Nate Ort (CSA-SCA)	University of Saskatchewan	Nate.ort@usask.ca
Poster Session	Andrew McKenzie-Gopsill (CWSS-SCM)	AAFC Charlottetown	andrew.mckenzie-gopsill@AGR.GC.CA
Continuing Education / Grower Day	Yousef Papadopoulos (Co-Chair)	AAFC Kentville	yousef.papadopoulos@AGR.GC.CA
	Andrew McKenzie-Gopsill (Co-Chair)	AAFC Charlottetown	andrew.mckenzie-gopsill@AGR.GC.CA
	Kevin Vessey	St. Mary's University	Kevin.vessey@smu.ca
	Gary Koziel	Nova Scotia Department of Agriculture	Gary.koziel@novascotia.ca
Scholarships and Awards Banquet	Charles Geddes (CWSS-SCM)	AAFC Lethbridge	Charles.Geddes@AGR.GC.CA
	Mumtaz Cheema (CSA-SCA)	Memorial University Grenfell Campus	mcheema@grenfell.mun.ca
	Andrew Burt (CSA-SCA)	AAFC Ottawa	andrew.burt@AGR.GC.CA
Media and Publicity	Andrew McKenzie-Gopsill (CWSS-SCM)	AAFC Charlottetown	andrew.mckenzie-gopsill@AGR.GC.CA
	Nancy Zubriski	CSA-SCA	nzubriski@gmail.com
Sponsorship	Matt Underwood (east)	Syngenta	Matthew.Underwood@syngenta.com
	Graham Collier (west)	Nufarm	graham.collier@nufarm.com
	Rigas Karamanos (Co-Chair, CSA-SCA)	Agronomist (retired)	rkgeoponica@gmail.com
	Nate Ort (CSA-SCA)	University of Saskatchewan	Nate.ort@usask.ca

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Finance Committee	Allison Hayward (CWSS-SCM)	FMC	allison.hayward@fmc.com
	Gurcharn Brar (CSA-SCA)	University of British Columbia	gurcharn.brar@ubc.ca
	Mumtaz Cheema (CSA-SCA)	Memorial University Grenfell Campus	mcheema@grenfell.mun.ca
	Nancy Zubriski	CSA-SCA	nzubriski@gmail.com
Photo Contest	Stephen Crozier	PMRA	stephen.crozier@hc-sc.gc.ca
	Nancy Zubriski	CSA-SCA	nzubriski@gmail.com
Industry Reception	Matt Underwood (east)	Syngenta	Matthew.Underwood@syngenta.com
	Graham Collier (west)	Nufarm	graham.collier@nufarm.com
	Scott White	Dalhousie University	Scott.white@dal.ca
	Kathleen Glover	AAFC Kentville	Kathleen.Glover@AGR.GC.CA

CWSS-SCM CONCURRENT SECTION CHAIRS - 2022

<p>Cereals, Oilseeds and Pulses</p> <p>Charles Geddes charles.geddes@canada.ca</p>	<p>Soybean, Corn and Edible Beans</p> <p>Adam Pfeffer adam.j.pfeffer@bayer.com</p>
<p>Horticulture and Specialty Crops</p> <p>Jichul Bae jichul.bae@canada.ca</p>	<p>Weed Biology and Ecology / Invasive and Noxious Weeds</p> <p>Martin Laforest martin.laforest@AGR.GC.CA</p>
<p>Provincial Reports / Regulatory Issues</p> <p>Kristen Obeid kristen.obeid@ontario.ca</p>	<p>Forage, Rangeland, Forestry/ Industrial Vegetative Management</p> <p>Lisa Jarrett lisa.jarrett@corteva.com</p>

CONFERENCE REGISTRATION INFORMATION

Titles and Abstracts:

On-line registration for titles and abstracts is found at our conference website at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa> under the 'Submissions' tab.

Conference Registration:

On-line registration for the event is found at our conference website at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>. The on-line registration can accommodate cheque and credit card payments.

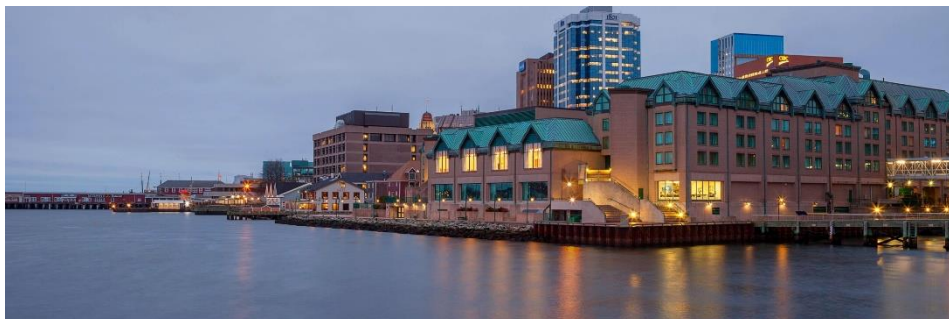
If you are paying by cheque, you can complete the registration on-line and then submit a cheque payable to CWSS-SCM. Cheques should be mailed to:

Executive Assistant, CWSS-SCM
24318 SH 642
Sturgeon County, AB
T0A 0K4

If you need help with registration, please call Kristina Polziehn, CWSS-SCM Executive Assistant at (780) 977-8726. You can also send an email to cwss.scm.assistant@gmail.com.

HOTEL RESERVATION INFORMATION

Halifax Marriott Harbourfront Hotel



Halifax is a great place to visit before and after the conference. Those who plan to stay long can stay at the hotel at the same conference rate of **\$149 CAD per night + 15% HST and relevant hotel service fees.**

- Start Date for Conference Rate: Thursday November 10 2022
- End Date for Conference Rate: Tuesday November 22 2022

Last Day to Book: Monday October 31 2022

[Book your group rate for 2022 Joint Meeting of the CWSS-SCM and CSA-SCA](#)

Guests choosing to book online may do so by visiting www.halifaxmarriott.com and typing CWSCWSR the online code, in the group booking code box

The Halifax Stanfield International Airport provides a range of transportation services to get you into Halifax and back to the airport, including an Airport Car Service, Ridesharing Services, Car Rentals, Bus Services, and Accessible Transportation. Please visit <https://halifaxstanfield.ca/transportation/> to make your arrangements.

CALL FOR ORAL PRESENTATIONS & POSTERS

You are invited to submit titles for oral presentations and posters relating to research in any area of weed science and agronomy. Please take this opportunity to update the Canadian agronomy and weed science communities on your research.

Title submissions are through the website where submitters will be asked to indicate their preference (oral presentation or poster). **The deadline for title submission is September 15 2022. This has been extended to Sept. 30, 2022.** For CWSS-SCM members, please indicate which program Section you wish to make your oral presentation in. For CSA-SCA members, please indicate one or more subject area(s) that reflect your work (e.g. soil and plant health, advances in agronomy, plant breeding and genetics, crop management, etc). Titles will be forwarded to the appropriate Program Section Chair. If there are too many proposed oral presentations in the allotted time in any given Section, the Chair will decide which will be presented orally and which authors will be asked to submit posters instead.

An abstract of your oral or poster presentation(s) will be required by October 15 2022. Please upload abstracts under the 'Submission Tab' at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>.

A copy of your poster(s) is requested for inclusion on the website by November 10, 2022. Please upload your posters at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>.

Please note that registration and title submission is online. If you have problems logging on or with the on-line program, please contact:

Kristina Polziehn. CWSS-SCM Tel: (780) 977-8726, Email: cwss.scm.assistant@gmail.com

Posters can be viewed throughout the annual meeting as listed in the agenda.

CALL FOR GRADUATE STUDENT PRESENTATIONS

The CWSS-SCM and CSA-SCA are soliciting titles of presentations from students for the 2022 Joint Annual Meeting. Each society holds a student presentation award competition for any interested students. CWSS-SCM student members are welcome to submit a title for an oral presentation while CSA-SCM students may choose either an oral or poster presentation. Topics may include any aspect of agronomy, plant biology, and weed science. **To be considered for these presentations, a title must be submitted no later than September 15, 2022. This has been extended to Sept. 30, 2022.** The Graduate Student Presentations title registration form will be available online at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>. For CSA-SCA students please indicate a subject area(s) relevant to your research to be used for program session planning.

For oral presentations, presenters will be allotted up to fifteen (15) minutes for their talk including 3 minutes for questions.

Note: All oral presentations must be made using Microsoft PowerPoint.

CWSS-CSM students:

An abstract or written summary of your presentation (maximum of 1 page) will be required by **October 15, 2022**. Format instructions and procedures on how to submit an electronic copy of your text (Microsoft Word) through the web site will be e-mailed to you once you have registered a title.

CSA-SCA students:

An abstract of your presentation (either oral or poster) will be required by **October 15, 2022**. Please see abstract preparation details below. Abstracts can be uploaded under the “Submission Tab” at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>. Please remember to indicate that you are a CSA-SCA member and a student and whether you wish to be considered in the oral or poster competition category when submitting your presentation title and abstract. **CSA-SCA student memberships are \$25.00 and can be obtained by accessing www.agronomycanada.com.**

We encourage students to take this opportunity to share your research!

CWSS-SCM: CALL FOR PROVINCIAL REPORTS AND REGULATORY REPORTS

Please note that the Provincial Reports should be submitted in full by **October 15 2022**. The same applies to governmental agencies. All these reports can be uploaded on-line when you register for the annual meeting. Changes, if needed, can be made by re-entering the registration website. They can also be submitted electronically to cwss.scm.assistant@gmail.com

INSTRUCTIONS FOR PREPARING ABSTRACTS

An abstract is required for all the presentations (graduate students, oral or poster in program sections or in symposia).

A full program with all the abstracts will be available to all registrants at the Registration Desk.

An abstract (maximum of 300 words) is required and must be uploaded by **October 15 2022** by login in the on-line registration for the CWSS-SCM Annual Meeting.

The abstracts will be printed exactly as submitted, other than format and font changes to make all abstracts the same; therefore, proofread carefully.

1. **Contents.** The abstract should highlight significant results and include an interpretation of the results, as well as essential aspects of the experimental procedure, but without details. Write the abstract so it consists entirely of information. Do not include statements such as "The results of the experiments will be presented" or "The significance of these results will be discussed".
2. **Font, spacing, and file format** Page size: 8.5 inches wide x 11 inches long. Page margins: 1 inch on every side Line spacing: Single space only Font: Times New Roman Font size: 11 pt. only. You can use superscript and subscripts if needed. Text justification: Left justified everywhere Latin names: Use italics for Latin names. Do not underline. File format. The file should be saved as a Word Doc (.doc) file. File name: Please use your name for file name. If you are submitting more than one abstract, please add a number after your name. Do not use space, use underlines instead. Example: Daniel_Cloutier.doc or Daniel_Cloutier_2.doc
3. **Order of presentation.** The order should be: Title in bold, followed immediately by the list of authors and their addresses (Department, Institution, City and Province). Skip one line and follow with the abstract (see the examples at the end of this text).

Details. Capitalize only the first word and proper names in the title and end the title with a period. Include both the common and scientific names of weeds, the common names of herbicides and well-known crop plants. Include both the common and scientific names of uncommon crops. The title should be typed in bold-face. After the title, add the name(s) of author(s), family name first, followed by their initial(s). Place a comma after each author and a period after the last author. Follow this with the author(s) address(es) (Department, Institution, City and Province). Do not include street addresses, divisions, P.O. Box or postal codes. End this section with a period. Skip one line and begin your abstract in paragraph form (maximum of 300 words). If there is more than one address, use superscripts as in example 2 below.

1. Herbicide nomenclature. Use common names of herbicides as given in the latest issue of Weed Science. When the common name refers to the parent acid, the salt or ester forms used in the experiments should be identified at the first mention of the common name (e.g. methyl ester of diclofop). At the first mention of a herbicide application rate, list whether the weight is acid equivalent (ae) or active ingredient (ai) (e.g., kg ai ha⁻¹). If no common name is available, use its designation (trade name or code) followed by the full chemical name. If the chemistry is confidential, identify source (company) in parentheses after designation.
2. Adjuvant nomenclature. Where possible, use WSSA Monograph Adjuvants for Herbicides, Weed Science 26:204-205 or the WSSA Herbicide Handbook. Otherwise, use the most complete available chemical description of the adjuvant.
3. Weed nomenclature. Identify weeds by common names. At first mention of a weed, in the title or text, follow the common name with the scientific name (italic) and authority, if first mention is in the text, in parentheses. Do not repeat the scientific name in the text if given in the title. Use common and scientific names of weeds as given in the Inventory of Canadian Agricultural Weeds at http://res2.agr.ca/ecorc/weeds_herbes/title-titre_e.htm. If there is no common name, use common scientific names from another source such as the COMPOSITE LIST OF WEEDS, published by WSSA in 1989.
4. Crop nomenclature. Scientific names for crop plants are optional. They are not needed for well-known crops, but should be included for less common crops and whenever needed for clarity. Place scientific names in parentheses (italic) following first mention of the common name, whether in the title or text.
5. Measurements. Report all measurements in SI units. Abbreviate units of measure if preceded by a number. See Weed Science (1991) 39:136-137 for additional suggestions and metric conversions.
6. Abbreviations. Use abbreviations as shown in Weed Science (1995) 43:713-717 or CBE Style Manual.
7. Numbers. Use Arabic numerals for all numbers with two or more digits and for all measurements such as time, weight, length, area, quantity, or degree except when the number is the first word in the sentence. Spell out numbers when they are the first word in a sentence or when they are less than 10 and not measurements.
8. Tables, figures, or literature citations. Do not include these in Abstracts.

Here are some examples

EXAMPLE 1:

Visit the Canadian Weed Science Society website at
www.weedscience.ca

Visit the Canadian Society of Agronomy website at
www.agronomycanada.com

Tillage systems influence emergence periodicity of annual weeds in canola. Bullied, W.J., Marginet, A.M., and Van Acker, R.C. Department of Plant Science, University of Manitoba, Winnipeg, MB

Variation in emergence periodicity of annual weeds is an attribute that may be utilized as a control strategy to reduce weed competitiveness in canola. Emergence periodicity of annual weeds was determined in spring-seeded canola fields in conventional and conservation tillage systems during spring of 2000 across southern Manitoba, Canada. The impact of tillage system on the emergence periodicity of annual weed species was evaluated in the context of the trend toward reducing levels of tillage intensity while maintaining crop competitiveness. Conservation-tillage promoted earlier emergence for all weed species except wild mustard and redroot pigweed. Differences in emergence periodicity between tillage systems could not be explained by soil temperature or moisture, but were attributed to differences in soil disturbance. For all species, the maximum rate of emergence did not differ between tillage systems. This suggests that differences in emergence periodicity between tillage systems are a result of differences in the emergence lag phase period. Onset of the seeded canola emergence period preceded the onset of the emergence period for all weed species except wild mustard in conservation-tillage, and wild mustard and wild oats in conventional-tillage. For all weed species monitored in this study, the average difference in onset of emergence between canola and the weeds was positive for both tillage systems, however it was greater in conservation-tillage systems. This suggests that canola seeded in conservation-tillage systems may have a competitive advantage through the relative time of crop emergence. The results from this study support canola management strategies for tillage system and weed control timing decisions, as well as validation for weed emergence models.

EXAMPLE 2:

Hybridization between transgenic canola (*Brassica napus* L.) and its wild relatives: bird rape (*B. rapa* L.), wild radish (*Raphanus raphanistrum* L.), wild mustard (*Sinapis arvensis* L.), and dog mustard (*Erucastrum gallicum* (Willd.) O.E. Schulz). Warwick S.I.¹, Simard M.-J.², Légère A.², Beckie H.J.³, Séguin-Swartz G.³

¹Agriculture and Agri-Food Canada (AAFC), Ottawa, ON; ²AAFC-Ste-Foy, QB; ³AAFC-Saskatoon, SK

The frequency of gene flow from canola to four wild relatives, bird rape, wild radish, wild mustard, and dog mustard was assessed in field experiments and in commercial fields. Various marker systems were used to detect hybrids: herbicide resistance traits (HR), molecular markers (AFLPs) and ploidy level. Hybridization between bird rape (AA) and canola (AACC) occurred in a HR canola field experiment (frequency ca. 7%) and in wild populations in commercial HR canola fields (ca. 13.6%). All F1 hybrids were morphologically similar to bird rape, had canola- and bird rape-specific AFLP markers, were triploid (AAC, 2n = 29) and reduced pollen viability (ca. 55%). In contrast, a single wild radish × canola F1 hybrid was detected in 32821 seedlings from a HR canola field experiment. The hybrid was morphologically similar

to wild radish except for the presence of valves, a canola trait, had both canola- and wild radish-specific AFLP markers, <1% pollen viability, and a genomic structure of RrRrAC, $2n = 37$. No hybrids were detected in commercial fields in Québec and Alberta (22,114 seedlings). No wild mustard or dog mustard \times canola hybrids were detected (42,828 and 21,841 seedlings, respectively) from commercial fields in Saskatchewan. These findings suggest that the probability of gene flow from transgenic canola to wild radish, wild mustard or dog mustard is very low ($<2.5 \times 10^{-5}$). However, transgenes can disperse in the environment via wild bird rape in eastern Canada and possibly via commercial *B. rapa* volunteers in western Canada.

CALL FOR CWSS-SCM PHOTO CONTEST ENTRIES

Winning photos will be selected by a panel of judges selected by the Photo Contest Coordinator. Pictures will be judged on their originality, visual quality and subject relevance. Paid CWSS–SCM members will be able to vote after the submission deadline of **October 28 2022**. Prizes will be awarded as follows: 1st in each category (\$100.00), 2nd in each category (\$50.00), 3rd in each category (\$25.00). Prizes: 1st - \$100, 2nd - \$50, 3rd - \$25 in each of three categories. The prize for the People's Choice Award, meaning that all the membership will be the jury and vote for what they judge as being the best photo, is \$100. Categories are:

Category 1: Agriculture and Forestry: Individual botanical subject is not the prime theme of the image. For example, production (seeding, spraying, cutting...) or general views (landscape)

Category 2: Weeds: Pictures of plants (patches, whole individual or parts) considered as weed. Images should demonstrate morphologic characteristics and/or weed invasion/competition. For example, dandelion seeds transported by wind, vetch on evergreen, soybean field with common ragweed...

Category 3: Research in action: Pictures of research activity whether it be in the lab, or in the field. For example, canola breeding greenhouse, plot seeding, hand spraying...

Contest Rules:

1. Entries must be digital images in either jpg or gif format. Images must be large enough to produce an 8x10 print (3 megapixels minimum).
2. Photos can be uploaded with Registration for the Annual Meeting, found through our website at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>. You can upload photos as you register for the Annual Meeting or you can send them by email to cwss.scm.assistant@gmail.com.
3. If you are sending in photos by email, each picture must be identified as:
category_number_name_of_picture_name_of_photographer.

Example: 2_giant_ragweed_John_Smith.jpg. Spaces must not be used in the name, only underlines _.

4. Members of CWSS–SCM can submit a **maximum** of 3 pictures per category.
5. Winners agree to give non-exclusive rights of use of their photos to the CWSS-SCM.
6. Deadline for entries is **October 28 2022**.

CALL FOR CSA-SCA PHOTO CONTEST ENTRIES

Start collecting photos for our Photo Contest! The objective is to encourage CSA-SCA members to capture excellent agronomy-related images and to share these images with fellow CSA-SCA members.

The three best photos submitted in each of three categories will be recognized. Category 1: Agronomy in action; Category 2: Crops and Biological Interactions; Category 3: Landscapes and Fieldsapes. The winning photos will be chosen by a panel of judges selected by the Photo Contest Coordinators at the CSA-SCA 2022 annual meeting (November 13-19, 2022). 1st place: \$100, 2nd place: \$50, 3rd place: \$25 in each of three categories.

Photos can be submitted by email (csagronomy@gmail.com) or Twitter, by tweeting a high-resolution image to @AgronomyCanada using the hashtag #CSA2022photocontest. Please provide a short and descriptive caption or title for your photo and the category when submitting. Please submit photos by August 31, 2022.

Thank you to our contest sponsor!



CWSS-SCM AWARDS

BAYER CROPSCIENCE BEST GRADUATE STUDENT PRESENTATION AWARD

This \$500 award is given in recognition of the best student oral presentation at the CWSS-SCM annual meeting. All CWSS-SCM student members giving an oral presentation will be automatically considered for this award. The winning presentation will be selected by a panel of judges appointed by the Local Arrangements Committee. The local arrangements committee contact for the graduate student presentations is Darren Robinson at drobinso@uoguelph.ca.

BASF CANADA BEST POSTER AWARD

This award is to recognize the best poster presented at the CWSS-SCM annual meeting. All posters presented by members of the CWSS-SCM are automatically eligible for this award. The winning poster will be selected by a panel of judges chosen by the Local Arrangements Committee. The award consists of a \$250 cash prize for the 1st place, \$150 cash prize for 2nd place and \$100 cash prize for 3rd place. A plaque is presented to the senior author of each winning poster. The local arrangements committee contact for the poster competition is Andrew McKenzie-Gopsill at andrew.mckenzie-gopsill@AGR.GC.CA.

CALL FOR NOMINATIONS FOR CWSS-SCM AWARDS

Nominations are encouraged for the following awards:

- CWSS-SCM Fellow
- CWSS-SCM Outstanding Industry Member
- Excellence in Weed Science Award
- CWSS-SCM Meritorious Service Award
- Excellence in Weed Extension Award

See www.weedscience.ca/annual-meeting/scholarships-awards for information on application procedures and deadlines.

Visit the Canadian Weed Science Society website at
www.weedscience.ca

Visit the Canadian Society of Agronomy website at
www.agronomycanada.com

CSA-SCA AWARDS:

ALI NAVABI GRAD STUDENT TRAVEL AWARD

The Ali Navabi Graduate Student Travel Awards were established in 2013 to encourage student attendance at the CSA-SCA Annual Meetings and is available to any graduate student CSA-SCA member. The Student Travel Award is \$500 and an inscribed certificate with a maximum of 5 awarded annually.

Please see <https://agronomycanada.com/awards/student-travel-award/> for details. Application deadline is October 15, 2022.

GRADUATE STUDENT PEST MANAGEMENT AWARD

The Canadian Society of Agronomy (CSA-SCA) Graduate Student Pest Management Award is made available annually to qualified graduate students enrolled at Canadian universities with research programs relevant to pest management. The Graduate Student Pest Management Award shall be made at the AGM/Conference for the CSA-SCA and the recipient will receive \$500, a suitably inscribed certificate and a travel grant of up to \$1,000 provided by Bayer Canada Inc. to allow the successful applicant to attend the CSA-SCA annual conference and make an oral presentation based on her/his research project.

GRADUATE STUDENT PRESENTATION AND POSTER AWARDS

At each annual meeting, the Canadian Society of Agronomy provides a number of awards for the best oral and poster presentations given by student members. These awards are given to acknowledge the contributions that graduate students make to the society and to encourage excellence in graduate student research and presentation.

In addition to the above student awards the CSA-SCA offers four awards recognizing the accomplishments of its membership which will be presented at the Awards Banquet.

- Early Career Agronomist
- CSA Fellow Award
- Distinguished Agronomist
- Canadian Journal of Plant Science Best Paper Award

See <https://agronomycanada.com/awards/> for full information on awards and application details

CALL FOR COMMERCIAL DISPLAYS

The CWSS-SCM annual meeting represents a perfect opportunity for reaching the Canadian weed science community. For only \$250, you will have the privilege to share your expertise with your colleagues by having access to a display table (includes chairs and access to an electrical outlet).

If you are interested and wish to take advantage of this offer, you can pay for your Commercial Display under the registration tab at <https://event.fourwaves.com/2022-joint-meeting-cwss-csa>. Please note, **all commercial display participants MUST first register for the CWSS-SCM conference in order to pay for their commercial display.**

You may also submit the following 'Commercial Display Submission' form to Kristina Polziehn, CWSS-SCM Executive Assistant, (address below) no later than **October 28, 2022**. In addition, please also submit your registration form for the **CWSS-SCM conference**.

Commercial Display Submission Form (please print)

Company:

Contact Person:

City/Town:

Province:

Postal Code:

Phone:

Fax:

Email:

Please make your cheque for \$250.00 payable to: "CWSS-SCM",
Completed submission form and payment (\$250.00) must be received no later than **October 28, 2019**.
Forward to:

Kristina Polziehn, CWSS-SCM Executive Assistant, 24318 SH642 Sturgeon County, AB T0A 0K4