



## PRESIDENT'S MESSAGE

Fellow CSA members,

I am deeply honored to serve as your President, and extend my best wishes for a successful 2025 and beyond.

I met many CSA members at the 2024 annual meeting, which was co-organized with Plant Canada. Thank you Harpinder Randhawa and Jamie Larsen for your outstanding efforts in organizing the 2024 CSA annual meeting. I also would like to express my gratitude to our former past-president, Jamie Larsen, for his dedicated service to CSA, and to our outgoing Executive Director, Marcie Wilson, for her invaluable contributions to CSA. I am pleased to welcome Jeremy Irvine as the new CSA Student Representative on the executive committee. Additionally, I am delighted to welcome Jennifer Mitchell as our new Executive Director. Jennifer brings extensive connections in the ag industry through her past experience and valuable experience working with other scientific societies. She can be reached at [csagronomy@gmail.com](mailto:csagronomy@gmail.com) or 519-803-1144.

Looking ahead, the 2025 CSA annual meeting will be held jointly with the Canadian Society for Horticultural Science at UBC Okanagan Campus, Kelowna, June 23-25. The theme, "Sustainable Crop Production," reflects our shared commitment to advancing resilient agronomic practices. This event will feature three keynote speakers with diverse expertise, a field tour, and a range of sessions including Breeding & Genetics, Crop Management, Soil Management, Digital Agriculture, System Resilience, Fruits, Vegetables, Root Crops, Herbs & Medicinal Crops, and Ag Extensions & Networking. Online conference registration is now open [HERE](#). The organizing committee has reserved UBC student dormitories for convenience and affordability. I encourage you to secure accommodations as early as you can. On behalf of CSA, I warmly invite you to join us, whether to volunteer, network with peers, or present your research. I look forward to seeing many of you in Kelowna this June.

Supporting the next generation of agronomists remains a cornerstone of our society. CSA offers several graduate student awards, including the Ali Navabi Graduate Student Travel Award, the Graduate Student Pest Management Award, and the Graduate Student Presentation and Poster Award. For professionals, CSA recognizes excellence through the Early Career Agronomist Award, Best CJPS Paper Award, CSA Fellow Award, and Distinguished Agronomist Award. Please visit the CSA website to learn more about these awards. I encourage graduate students to apply for the student awards and members to nominate your outstanding colleagues for professional awards.

We also have some exciting upcoming activities. Jeremy Irvine is organizing the CSA Green Bagger event, and Jagroop Gill Kahlon is planning the Brown Bagger event. As always, there will be CSA executive positions with openings this year. Please consider nominating your colleagues who are passionate about serving our CSA society.

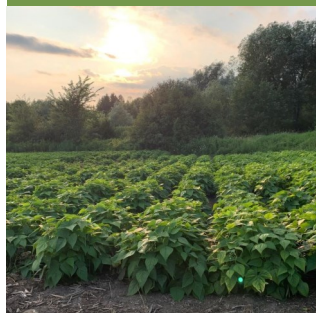
While CSA has made significant achievements in connecting agricultural communities, we also face challenges such as declining membership. Please consider being part of the CSA community by either joining us or renewing your CSA membership. Your involvement is vital to strengthening our society.

The CSA is happy to resume its newsletter, providing important updates on CSA activities including the AGM, annual conference, green bagger, and brown bagger talks. We also encourage our members to share any newsworthy items with our new Executive Director, Jennifer Mitchell ([csagronomy@gmail.com](mailto:csagronomy@gmail.com)), for inclusion in our future communications.

Together, we can make 2025 a remarkable year for our society and the broader agronomic community.

Kui Liu  
CSA President

## RENEW YOUR MEMBERSHIP



To learn more about CSA  
[Click Here](#)

To renew your membership  
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## SAVE THE DATE

### Upcoming Canadian Society of Agronomy Annual General Meeting & Conference

The [2025 CSHS-CSA Joint Annual Conference](#) will be held on June 23 to 26, 2025 at UBC Okanagan Campus, Kelowna BC. This event will be an excellent opportunity to connect with colleagues, share insights, and explore the latest advancements in agronomy.

**EARLY BIRD REGISTRATION CLOSES MARCH 15, 2025**

## RECIPIENT OF THE PUBLIC SERVICE AWARD OF EXCELLENCE FOR 2023 DR. SHABTAI BITTMAN

Congratulations to Dr. Shabtai Bittman of Agassiz Research and Development Centre!

On October 24, 2024, Shabtai received the Public Service Award of Excellence for "Excellence in Profession." The award recognizes highly skilled and innovative public servants who maintain strong ethics in their day-to-day work while collaborating, inspiring, and motivating others, a fitting depiction of Shabtai's career.

Shabtai has made significant contributions in the fields of sustainable agriculture and environmental management - locally, nationally and internationally. Working with colleagues, Shabtai has developed practices that can be used to reduce nutrient surpluses, protect environmental health, and mitigate greenhouse gas emissions, while enhancing productivity. He is currently co-lead of two Living Labs (British Columbia and Peace Region). His knowledge and expertise is routinely sought out by international agencies developing standards and policies in the areas of ammonia mitigation and nitrogen management.

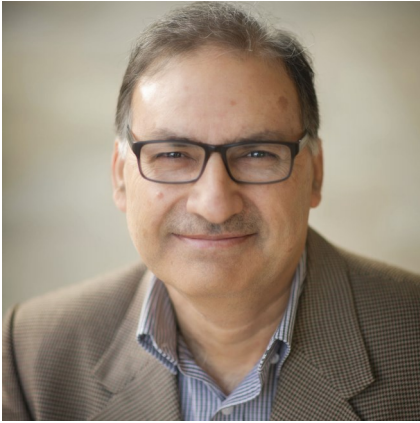
In addition to the countless contributions he has made to agricultural science, Dr. Bittman provides guidance and mentorship to the next generation of agricultural scientists at AAFC. His colleagues appreciate his passion, generosity, and openness in the pursuit of developing practical tools to support Canadian farmers and protecting the environment.



Dr. Bittman served as CSA president, received CSA awards, and has been a long-time member.

Gilles Saindon, Ph.D.  
Assistant Deputy Minister  
CSA Newsletter

Andrew Goldstein  
Associate Assistant Deputy Minister



## Fellow Award

Dr. Mumtaz Cheema  
Memorial University  
-Grenfell Campus

The Fellow of the Canadian Society of Agronomy is given to a duly nominated member with 10 years or more of regular membership with a distinguished record of service in any field of agronomy in Canada.

## Distinguished Agronomist Award

Dr. Dean Spaner  
University of Alberta

The Distinguished Agronomist Award is presented annually to members of the Canadian Society of Agronomy (CSA) in recognition of their outstanding contributions to agronomy.



### Climate conditions in the near-term, mid-term and distant future for growing soybeans in Canada

Budong Qian<sup>a</sup>, Ward Smith<sup>b</sup>, Qi Jing<sup>c</sup>, Yong Min Kim<sup>d</sup>, Guillaume Jégo<sup>e</sup>, Brian Grant<sup>f</sup>, Scott Duguid<sup>g</sup>, Ken Hester<sup>h</sup>, and Alison Nelson<sup>i</sup>

<sup>a</sup>Ottawa Research and Development Centre, Science and Technology Branch, Agriculture and Agri-Food Canada, Ottawa, ON K1A 0C6, Canada; <sup>b</sup>Brandon Research and Development Centre, Science and Technology Branch, Agriculture and Agri-Food Canada, Brandon, MB R7A 5Y3, Canada; <sup>c</sup>Québec Research and Development Centre, Science and Technology Branch, Agriculture and Agri-Food Canada, Québec, QC G1V 2J3, Canada; <sup>d</sup>Morden Research and Development Centre, Science and Technology Branch, Agriculture and Agri-Food Canada, Morden, MB R6M 1Y5, Canada; <sup>e</sup>Oilseeds, Pulses, Special Crops and Industrial Bioproducts, Market and Industry Services Branch, Agriculture and Agri-Food Canada, Ottawa, ON K1A 0C5, Canada; <sup>f</sup>Director's Office RDT Manitoba, Science and Technology Branch, Agriculture and Agri-Food Canada, Winnipeg, MB R3C 3G7, Canada

Corresponding author: Budong Qian (email: budong.qian@agr.gc.ca)

#### Abstract

The soybean industry in Canada aimed to extensively expand soybean production to benefit from new early-maturing varieties and the warming climate. However, setbacks in the soybean industry since 2017 demonstrated the impacts of climate risk and global market uncertainty. Therefore, a better understanding of future climate conditions that will impact soybean growth in Canada is needed for decision-making in the sector, such as prioritizing regions for expansion and developing climate change adaptation strategies through either agronomic management practices or breeding new cultivars. Based on climate projections from a set of global climate models, we analyzed climate conditions for growing soybeans, including growing season start, crop heat units, precipitation, precipitation deficits and climate extremes, in the near-term (2030s), the mid-term (2050s) and the distant future (2070s). We found that a future warmer climate with an increase of 1.6, 2.8 and 4.1 °C in the growing season (May–September) mean temperature averaged over Canada's land area in the near-term, mid-term and distant future under SSP3-7.0 would favour the expansion of soybean production further north and west. However, an increase of approximately 200 mm in precipitation deficits on the semiarid Canadian Prairies in the mid-term would constrain soybean production unless irrigation could be introduced. Heat- and drought-tolerant cultivars should be developed to adapt soybean production to

## Canadian Journal of Plant Science Best Paper

Dr. Budong Qian  
Agriculture and Agri-Food  
Canada  
Ottawa Research and  
Development Centre

**CANADIAN SOCIETY OF AGRONOMY  
2024 STUDENT AWARDS**

**Ali Navabi Student Travel Awards**

Jedida Chirchir

Simranjeet Kaur

Emma Mcilveen

Baillie Lynds

Sharjeel Ahmad

Chathuranga De Silva

**Graduate Student Pest Management Awards**

Simranjeet Kaur

The Canadian Society of Agronomy (CSA) Graduate Student Pest Management Award is made available annually to qualified graduate students enrolled at Canadian universities with research programs relevant to pest management.



**Nutrient Management-Best Oral Presentation**

Tristan Chambers- University of Saskatchewan

Can starter potash applications improve the yield and crop health of chickpea, mustard, and durum wheat in the Brown Soil zone of Saskatchewan?



**CANADIAN SOCIETY OF AGRONOMY  
2024 STUDENT AWARDS**

**Pulse and Soybean**

**Best Oral Presentation**

Emma Mcileen-University of Guelph

A seed treatment for the management of soybean cyst nematode on dry beans

**Best Poster Presentation**

Larissa Cottick-University of Manitoba

Prolonged nitrogen fixation during periodic moisture stress to enhance yield and protein accumulation in soybean



**Wheat**

**Best Oral Presentation**

Ritesh Yadav-University of Manitoba

Genomic prediction for improving winter hardiness and fusarium head blight resistance in winter durum wheat

**Best Poster Presentation**

Manawashinghe Kalhari-University of Saskatchewan

Assessing the role of canopy architecture of wheat (*Triticum aestivum* L.) for drought and heat tolerance



**CANADIAN SOCIETY OF AGRONOMY  
2024 STUDENT AWARDS**

## **Forages**

### **Best Oral Presentation**

Mohammed Musthafa Mukthar-University of Alberta

Enhancement of total shoot lipid content (TSLC) in perennial legume forages using chemical mutagenesis

### **Best Poster Presentation**

Oshadhi Athukorala Arachchige-University of Alberta

The effect of humic acid on root nodulation and plant growth of red clover (*Trifolium pratense* L.)



## **Agronomy**

### **Best oral Presentation**

Emily Mantin-Dalhousie University

Purpose-grown biomass crops in Nova Scotia: Statistical predictive yield modelling and real-world verification

### **Agronomy-Best Poster Presentation**

Prerana Upretee-University of Saskatchewan

Key factors affecting the winter survival of fall-dormant-seeded spring crops: seed characteristics and water uptake



# Canola

## Best Poster Presentation

Ruchini Sovis-University of Winnipeg

Chelate assisted phytoextraction of multi-metal (loid) contaminated soils using Indian mustard



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2024 Student Awards Sponsors

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### Bronze Sponsors



# MEET YOUR EXECUTIVE COMMITTEE

## President - Dr. Kui Liu

Dr. Kui Liu is an agronomist at the Swift Current Research and Development Centre, AAFC. He conducted his Ph.D. study in organic cropping systems integrating perennial forages and soil amendments. He has experience in assessing how beneficial management practices affect soil and nutrient losses at the field and watershed scale by participating in WEBS projects. His future research will focus on developing crop management practices that improve yield and enhance ecosystem services and the resilience of cropping systems. He is currently involving in several crop rotation studies, where a systems approach is applied to understand the biologic processes and complicated biotic and abiotic interactions in intensively managed cropping systems.



## President Elect - Dr. Gurcharn Singh Brar

Dr. Gurcharn Singh Brar is an Assistant Professor and Wheat Breeder at the University of Alberta (UA) and an Affiliate Assistant Professor in Plant Science at the University of British Columbia (UBC), Vancouver. He earned his MSc and PhD in Plant Science from the Crop Development Centre at the University of Saskatchewan, completing his doctorate in 2019.

From 2020 to 2023, Dr. Brar served as a Faculty Member and Cereal Geneticist at UBC. In January 2024, he joined UA, where he continues his impactful research and teaching. Over his career, Dr. Brar has trained more than 25 highly qualified personnel (HQPs), supervised five MSc graduates, and authored 30 peer-reviewed publications, four book chapters, and an edited volume.

Dr. Brar has made significant contributions to professional societies and committees. He serves as a voting member of the Prairie Grain Development Committee (PGDC), Member-at-Large on the PGDC Executive, and Board Member of the Canadian Phytopathological Society (CPS).

A dedicated member of the Canadian Society of Agronomy (CSA) for over a decade, Dr. Brar has held various leadership roles, including Student Representative, Western Director, and Secretary-Treasurer. His extensive experience and dedication to the field of agronomy underscore his commitment to the society's mission and values.

## Past-President – Harpinder Singh Randhawa

Dr. Harpinder Singh Randhawa is a Research Scientist (spring wheat breeding) working with Agriculture and Agri-Food Canada (AAFC) at the Lethbridge Research and Development Centre, Alberta since 2007. He has more than 25 years of experience and knowledge working on the different aspects of wheat breeding, genetics, pathology, biotechnology, molecular genetics and genomics. His breeding program integrates conventional breeding approaches along with marker assisted breeding, genomics, doubled haploid and other novel technologies for cultivar development. His prime focus is to breed cultivars in order to improve profitability and reduce business risk for farmers and processors. His other research interests include the identification of new sources of disease resistance in wheat,



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# MEET YOUR EXECUTIVE COMMITTEE

Continued from page 2

genetic mapping, doubled haploid production, and new breeding tools.

Dr. Randhawa has participated in the registration of 12 high yielding spring wheat cultivars (3 CWSWS, 5 CPSR, 3 CWSP, 1 CWHW) and three triticale cultivars for general production in western Canada. He has published over 80 research articles in international journals, supervises many undergraduate and graduate students and post-doctoral fellows. He has attended over 45 National and International conferences. He is recipient of the Gold Harvest Award for Innovation, Collaboration and Service Excellence from the Science and Technology Branch, AAFC. Dr. Randhawa is also a recipient of the Borlaug Global Rust Initiative (BGRI) 2021 Gene Stewardship Award as an Agriculture and Agri-Food Canada wheat cultivar development team for long-standing innovations and strategies to combat wheat rust in Canada and around the world. He has been member of the Canadian Society of Agronomy since 2016 and served as Western Director from 2017-2019. Since 2016, he has worked as an associate editor for the Canadian Journal of Plant Science. Dr. Randhawa is currently a Science Team Lead for Plant Breeding and Pathology group at the Lethbridge Research and Development Centre.

## Secretary/Treasurer – Kathleen Glover

Dr. Glover completed a degree in agricultural science from the University of Guelph where she majored in Crop Science. She then did a M.Sc. at the University of Guelph specializing in forage agronomy and quantitative genetics. Dr. Glover went on to do a Ph.D. in the Department of Molecular Biology and Biochemistry at Dalhousie University studying the genetic origins of tRNAs in plant mitochondria. Following her PhD, she worked in private industry conducting applied research in both field and horticultural crops and was subsequently employed as a research chair/associate professor at the Nova Scotia Agricultural College where her research focused on using nutrigenomic approaches to understand the effects of fresh forage and lipid supplementation on ruminant animal metabolism and productivity. She also worked with government and industry partners to help improve pasture management for grass-fed beef production. Dr. Glover joined Agriculture and Agri-Food Canada's Kentville Research and Development Centre (co-located in Truro) in May 2017, as a forage agronomist. She has over 30 years experience in Plant Science Research including both basic and applied sciences.



## Western Director – Hiroshi Kubota

Hiroshi Kubota is a research scientist in sustainable crop management at the Lacombe Research and Development Centre, AAFC. He received his PhD in Plant Science from the University of Alberta in 2018. Since 2019, he has focused on developing agronomy practices that improve economic and environmental sustainability in both conventional and organic cropping systems. He currently has three focal research areas: 1) cropping system diversity – to improve resilience to biotic and abiotic stress in fields; 2) cropping practice diversity – to provide tools for producers whose goals are improving/maintaining yield while reducing negative impacts on the environment; 3) integrated crop management – to optimize

usage of natural resources for crop production in an environmentally and economically sound manner.

# MEET YOUR EXECUTIVE COMMITTEE



## **Western Director – Linda Gorim**

Dr. Linda Gorim is a prominent researcher and academic leader based in Edmonton, Alberta, Canada. Currently serving as the Crop Unit Academic Lead and Assistant Professor at the Department of Agricultural, Food and Nutritional Science, she holds the esteemed WGRF Chair in Cropping Systems. With a Ph.D. in Crop Water Stress Management from Universität Hohenheim and an MSc in Agricultural Sciences, Gorim's research program focuses on Integrated Agronomy, Sustainability, and Cropping Systems. Her work integrates crop productivity, water and fertilizer use efficiency, soil management, and pest control. Linda addresses challenges in translating superior genetics and agronomic practices to on-farm levels, emphasizing diverse crop rotations, including pulses, to optimize agricultural yield, quality, and input efficiency. Her research also delves into abiotic stresses, root

studies, soil amendments, and nutrient use efficiency. By considering factors like water balance, climate conditions, and environmental benefits such as carbon storage, she pioneers an integrated approach for sustainable agriculture.

## **Eastern Director – Joshua Nasielski**

Joshua Nasielski is an assistant professor of agronomy at the University of Guelph. Since 2019 he holds the “MacSon Professorship in Agronomy for eastern and northern Ontario.” Joshua's work is centered on the agronomic research needs of Ontario farmers, addressing key issues in the cultivation of field crops prevalent in Eastern Canada, while making scientific contributions of wider geographic scope. For further insight into his work, visit the website: [neoag.uoguelph.ca/](http://neoag.uoguelph.ca/).



## **Eastern Director – Laura Van Eerd**

Dr. Laura Van Eerd is a Professor of Sustainable Soil Management at the University of Guelph Ridgetown Campus. The goal of her internationally-recognized research program is to advance understanding of how agricultural practices influence crop productivity, nitrogen availability, and soil health. Dr. Van Eerd was conducting 4R nutrient stewardship research in 2007, well before the term was promoted. This research earned recognition by the Canadian Society of Agronomy with the Best Paper Award 2018 in Canadian Journal of Plant Science. She has similarly applied those approaches to optimize fertilizer nitrogen management in sugarbeets, which was selected as Editor's Pick in CJPS issue in 2021. Her innovation and foresight led to the establishment of a state-of-the-art

long-term cover crop experiment that has advanced global knowledge on cover cropping in temperate climates.

She has co/authored 75 peer-reviewed publications (>85% led from her research program; H index =26 Google Scholar), mostly in top-tier agronomy or soil science journals. She serves as Research Program Director for the Ontario Agri-Food Innovation Alliance since 2018. Here, she provides a vital leadership role in the province and the UoGuelph by ensuring that funded projects are agronomically sound and will have impact on Canadian agriculture. Dr. Van Eerd prioritizes communicating research findings as evidenced by over 135 scientific and 90 invited industry presentations. In addition to awards acknowledging her significant contributions to teaching, research and extension, Dr. Van Eerd was recognized as an Influential Women of Canadian Agriculture in 2020.



# MEET YOUR EXECUTIVE COMMITTEE

## CSA Student Representative- Jeremy Irvine

Jeremy is a second-year MSc student in the Department of Plant Sciences, University of Saskatchewan, where he studies the impact of the lesser clover leaf weevil on red clover seed Production; supervised by Dr. Sean Prager. His research focuses on understanding pest behaviour and developing sustainable management strategies, such as pheromone-baited traps, to protect red clover crops and reduce reliance on insecticides. Growing up on a farm in Saskatchewan, Jeremy developed a deep appreciation for agriculture and its challenges, which inspired him to pursue graduate studies. Jeremy is also the President of the Plant Science Graduate Student Association at the University of Saskatchewan.



One interesting aspect of Jeremy's life is his passion for outreach: 'I love visiting K-12 schools to teach students about the fascinating world of insects and inspire them to explore science and agriculture. These experiences are incredibly enriching and help close the gap between academia and the community'.

## Industry Representative – Dr. Jagroop Gill Kahlon

Dr. Jagroop Gill Kahlon, after finishing her PhD in plant science with specialization in Environmental biosafety of transgenic crops from the University of Alberta, joined Alberta Pulse Growers Commission as research officer. She has won several CSA awards as a student and was also winner of the prestigious WGRF scholarship. At her current job, she thoroughly enjoys being the vessel between the farmers, industry and researchers, and part of the larger industry that is working strenuously to bring issues of western Canadian agricultural research to forefront. She's also lead for 'plot to field' research program by Alberta Pulse, where she and the team, researches and develops best management practices for pulse growers in field scale experiments across Alberta.



## CJPS Representative – Ben Thomas

Ben is a Research Scientist in Agassiz, British Columbia with Agriculture and Agri-Food Canada, where he started as a Postdoctoral Research Scientist in Lethbridge, Alberta in 2016. Ben has authored or co-authored more than 40 peer-reviewed scientific publications. His research has mostly involved carbon, nitrogen and/or phosphorus cycling in response to organic amendments, cover crop management, land use changes and cattle grazing, as well as soil health and edaphic microbial responses to long-term intensive management practices. Ben received his Ph.D. from McGill University in 2016, where he studied labile soil organic matter and nitrogen mineralization in manure-amended soils of the Saint Lawrence Lowlands in Quebec, while also studying nitrogen dynamics in poultry manure-amended soils as a



Visiting Scholar at Trent University in Ontario.

Ben completed his Master of Resource and Environmental Management at Dalhousie University. There, he studied how compost and fertigation rates interacted to effect fruit yield and quality in strawberry plasticulture in Nova Scotia's Annapolis Valley. Ben earned his Bachelor of Science from the University of Prince Edward Island where he focused on plant science, food production and philosophy. Ben is now in his second term as the Agronomy Section Editor of the Canadian Journal of Plant Science. Ben is also an Associate Editor of the Canadian Journal of Soil Science. Ben would like to hear your questions, concerns, or suggestions for improving the Canadian Journal of Plant Science, so please feel free to contact him.

# Sustainable crop production for resilient Canadian agriculture

June 23–26, 2025, Kelowna, BC

Canadian Society for Horticultural Science  
& Canadian Society of Agronomy  
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