

2023 Alberta Soil Science Workshop Preliminary List of Technical Session Presentations

Speaker/Author(s)	Presentation Title	Affiliation	Corresponding Author Contact	Session
Brian Keating	Going Wild in Strange Times": A Spirit Lifting Journey into some of the best Canadian Wilderness Locations	Going Wild and Calgary Zoo	bk.goingwild@gmail.com	Banquet
Eric Bremer and Ben Ellert	Implications of Soil Nitrogen Cycling for Improving Fertilizer N Use Efficiency	Western Ag Innovations//Agriculture and Agri-Food Canada	ericbremer@westernag.ca	Fertility
Erin J. Daly, Guillermo Hernandez-Ramirez, Kate A Congreves, Tim Clough, Carolina Voigt, Eliza Harris, Reiner Ruser	Soil organic nitrogen priming to nitrous oxide: a synthesis	University of Alberta//University of Saskatchewan//Lincoln University//University of Hohenheim//University of Eastern Finland//ETH Zurich	edaly@ualberta.ca	Fertility
Mohammad Khodaei and M Derek MacKenzie	How do different compost blends with or without biochar additions affect C and N mineralization in agricultural soils from central Alberta	University of Alberta	mkhodaei@ualberta.ca	Fertility
Pramod Rathor, Linda Gorim and Malinda Thilakarathna	Effect of Humic Acid-Based Soil Amendments on Soil Nitrogen Availability and Wheat Growth	University of Alberta	prathor@ualberta.ca	Fertility
Rigas Karamanos, Jeremy Boychyn and Sheri Strydhorst	Nitrogen Rate of Return Calculators for Brown, Dark Brown and Black soils	Alberta Wheat and Barley Commissions	rkgeoponica@gmail.com	Fertility
Zhijie Wang, Jennifer L. Owens, Xiyang Hao, Elham Rahmani, Rezvan Karimi and Brian L. Beres, Ben W Thomas, Chris Holzapel, Kabal Gill	Winter wheat responses to enhanced efficiency granular nitrogen fertilizer in the Canadian Prairies	Agriculture and Agri-Food Canada//Farming Smarter//Indian Head Agricultural Research Foundation//SARDA Ag Research	brian.beres@agr.gc.ca	Fertility
Daniel D. Saurette	Canadian System of Soil Classification 4th edition: Reviving the Soil Classification Working Group	OMAFRA and University of Guelph	daniel.saurette@ontario.ca	Plenary
David L. Burton	Nitrogen Fertilizer Management to Mitigate Greenhouse Gas Emissions	Dalhousie University	dburton@dal.ca	Plenary
Leonard Leskiw, Brittany H. Flemming, Michael Carson and Lee Waterman	Land capability classification of reclaimed lands in Alberta – history and future	Paragon Soil and Environmental Consulting Inc.	len@leskiw.ca	Plenary
Mingchu Zhang	Climate Impact on Cereal Crop Development and Soil Health Research in Subarctic Region of Alaska	Institute of Agriculture and University of Alaska Fairbanks	mzhang3@alaska.edu	Plenary
Camila Camara De Almeida Cardoso and M Derek MacKenzie	Using archived soil samples to examine carbon sequestration after 20 years of no tillage in Alberta, Canada	University of Alberta	camarade@ualberta.ca	Poster
Laura Bony, Miles Dyck, and Sylvie Quideau	Response of microbial communities to long- and short-term coordinated nitrogen and sulfur fertilization	University of Alberta	lbony@ualberta.ca	Poster
Nathan Storey, Miles Dyck, Sylvie Quideau	Investigating pyrogenic carbon content and character of montane soils of the Southern Rockies post wildfire	University of Alberta	nstorey@ualberta.ca	Poster
Priscillar Wenyika, Miles Dyck, Linda Gorim	Exploring the Agronomic and Soil Health Benefits of Liming in the Canadian Prairies	University of Alberta	wenyika@ualberta.ca	Poster
Rhea Amor Lumactud, Linda Gorim, and Malinda Thilakarathna	Differential responses of bacterial communities across geographic locations and ecozones in Alberta agricultural fields amended with urea and humic-based amendments	University of Alberta	lumactud@ualberta.ca	Poster
Sumedha Vaishnavi Nallanthighal, Karanjot Gill, Malinda Thilakarathna, and Linda Gorim	Humalite as soil amendment for improving soil health	University of Alberta	nallanth@ualberta.ca	Poster
Camryn Charriere, Douglas Muench and John Headley	Investigating the substrate adsorption kinetics of naphthenic acid fraction compounds from oil sands process-affected water	University of Calgary//Environment and Climate Change Canada	dmuench@ucalgary.ca	Poster
Annie Zymela, Lisa Gieg and Douglas Muench	Bioaugmentation of the Plant Rhizosphere to Support Constructed Wetland Treatment Systems for Oil Sands Process-Affected Water	University of Calgary	dmuench@ucalgary.ca	Poster
M.D. Mackenzie, B. Lanoil, M. Khodaei, C. Cardoso, Z. Fries, S. Cui, J. Kowalski	Determining specific compost blends for regenerative agriculture in central Alberta	University of Alberta	mdm7@ualberta.ca	Poster
David Lloyd	Professionalism, Competence and Regulatory Change	Alberta Institute of Agrologists	dlloyd@aia.ab.ca	Pre-Conference
Eric Bremer and Ben Ellert	Hands-on Experience with Plant Root Simulator (PRS) Probes	Western Ag Innovations	ericbremer@westernag.ca	Pre-Conference
Connie Nichol	Creation and Afforestation of a Phosphogypsum Anthrosol	Nutrien Ltd.	Connie.Nichol@nutrien.com	Reclamation

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Emmily MacDonald, Pak Chow, Miles Dyck, Simon Lamdhassner, Connie Nichol	Assessing Soil Physical Factors on Root Systems Development and Growth of Different Plant Functional Types on Phosphogypsum Stacks	University of Alberta//Nutrien Ltd.	emmily@ualberta.ca	Reclamation
Ivan R. Whitson	Residual effects of pipeline construction on agricultural soils of the Canadian prairie	I Whitson Innovations Inc.	iwhitson@telus.net	Reclamation
Mark Baah-Acheamfour, Amanda Schoonmaker, Stefan G Schreiber, Eckehart Marenholtz	Combining reforestation approaches: targeted utilization of native plants and herbicides to battle undesirable vegetation	NAIT//EnviroStats Solutions Inc//Chickadee Reclamation Services	aschoonmaker@nait.ca	Reclamation
Stephanie Reddecliff	Bioengineering as a Progressive Solution to Bank Erosion in Public Green Spaces	Paragon Soil and Environmental Consulting	sreddecliff@paragonsoil.com	Reclamation
Mitchell Alberts, Douglas Muench and Christine Martineau	Application of Genomics to Enhance Constructed Wetland Treatment Systems for Remediation of Oil Sands Process-Affected Water	University of Calgary//Laurentian Forestry Centre NR Can	dmuench@ucalgary.ca	Reclamation
Lina Du, Chad W. Cuss, Miles Dyck, Tommy Noernberg, William Shotyk	Size fractionation of trace elements in soil solutions recovered from soils under contrasting long-term agricultural management	University of Alberta//Memorial University of Newfoundland	lina2@ualberta.ca	Soil Health
Mathew J.B. Swallow, Felix Nwaishi, Sylvie A Quideau	A low-waste high-accuracy modified Walkley-Black method for Soil Organic Carbon determination	Mount Royal University//University of Alberta	mswallow@mtroyal.ca	Soil Health
Patrick Neuberger, Timothy Schwingamer, Monika Gorzelak, Carlos Romero, Kris Nichols, Kimberly Cornish	On-farm comparison of microbial community diversity and associated organic matter in Chernozemic profiles	Agriculture and Agri-Food Canada//University of Lethbridge//Food Water Wellness Foundation	patrick.neuberger@agr.gc.ca	Soil Health
Roya Faramarzi , M Derek MacKenzie, Monika Gorzelak	How can microbial diversity be used as an indicator of soil health in different land management conditions?	University of Alberta//Lethbridge Research and Development Centre Agriculture and Agri-Food Canada	rfaramar@ualberta.ca	Soil Health
Michele Tran, Cameron Carlyle, and Malinda Thilakarathna	Effect of non-native cicer milkvetch on soil carbon, nitrogen, and soil microbiome in Canadian dry mixedgrass prairie	University of Alberta	metran@ualberta.ca	Soil Health
Tiffany Traverse, Greg Semach, Bharat Shrestha, Erin Hall, Patrick Neuberger, Monika Gorzelak	Testing Manure to Enhance Soil Health and Fertility in the Peace Country	Agriculture and Agri-food Canada	erin.hall@agr.gc.ca	Soil Health
Abhijeet Pathy, Christopher Nzediegwu, M Anne Naeth, Scott X Chang	Remediation of Heavy Metals from Oil Sands Process Water Using Biochar	University of Alberta	mkhodaei@ualberta.ca	Volunteer
Miles Dyck, Sylvie Quideau, Justine Lejoly, Preston Soenson	Gray Luvisols are Polygenetic	University of Alberta//University of Saskatchewan	mdyck@ualberta.ca	Volunteer
Konstantin Dlusskiy and Ed Karpuk	Alberta Soils Tour 2022: a review	Paragon Soil and Environmental Consulting Inc.//Alberta Environment and Protected Areas	kdlusskiy@paragonsoil.com	Volunteer
Scott Boorman	The Untapped Irrigation Potential of Soils in the Peace River Region	Paragon Soil and Environemntal Consulting	sboorman@paragonsoil.com	Volunteer
Mark Wagner and Tom Jensen	Different lime application incorporation methods and the effects on soil acidity reduction	University of Lethbridge	mark.wagner@uleth.ca	Volunteer
Tom Jensen, Laura Haenni, and Navneet Kaur	Liming Acidic pH Soils and the Net Effects on CO2 Balance	University of Lethbridge	jensti@uleth.ca	Volunteer