

<b>Session 1.1: Advances in Digital Soil Data Management &amp; Predictive Modelling</b>			
<b>Convenors:</b> Brandon Heung			
<b>Date:</b> Wednesday, June 28, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Chantel Chizen	Soil Carbon Stock Estimates for Saskatchewan's Prairie Pothole Wetlands	Yes	1
Han Fu	A Continuous Isotope Mixing Model for Determining Root Water Uptake	Yes	2
James Kobina Mensah Biney	Digital Soil Mapping and Image Fusion for Enhanced Soil Organic Carbon Estimation in Croplands	Yes	3
Travis Pennell	Using a Hurdle Approach to Address Zero-Inflation in Digital Soil Mapping of Depth to Bedrock	Yes	9
Caleb Niemeyer	Digital Soil Mapping Predicts Spatial Patterns in Economic Yield Response to Foliar Fungicide in Maize	Yes	14
Tegbaru B. Gobeze	Data Stewardship for Radically Greater Credits	Yes	8
Abdul Wahab	Land Use (LU) and Land Cover (LC) Change Assessments using Remote Sensing and GIS at Rawal Lake Watershed, Islamabad, Pakistan	Yes	162

<b>Session 1.2: Advances in Digital Soil Data Management &amp; Predictive Modelling</b>			
<b>Convenors:</b> Brandon Heung			
<b>Date:</b> Wednesday, June 28, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Deepa Filatow	TBD	No	TBD
Jeremy Kiss	User Data Sharing Considerations for a Web-Based Predictive Soil Mapping Service Platform	No	4
Preston Sorenson	Soil Carbon Sequestration Potential: Linking Process Models with Predictive Soil Maps	No	6
Taras Lychuk	Effects of Crop Inputs, Diversity, Environment and Terrain on Soil Nitrogen and Phosphorus in an 18-year Study in the Semi-Arid Canadian Prairie	No	7
Jim Warren	Updating and Renewal of Soil Resource Inventory in Ontario	No	5
Jin Zhang	Developing Pedotransfer Functions for Soil Nutrient Regimes for Ontario	No	236
Marc-Oliver Gasser	Predicting Soil Organic Matter Evolution under Climate Change in Quebec.	No	224
Brandon Heung	Towards a Framework for Interpretable Machine Learning in Digital Soil Mapping	No	230

<b>Session 4: Effects of Microplastics within Terrestrial Systems</b>			
<b>Convenors:</b> Serra-Willow Buchanan, Eric Kanold			
<b>Date:</b> Monday, June 26, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Jordan Grigg	Characterization of Microplastics Found in Agricultural Soils Amended with Municipal Compost.	Yes	177
Nicholas Letwin	A Polyester Problem: A Look Into the Microplastic Contents of Biosolids and Biosolid-Amended Fields	Yes	178
Charles Andrew Little	Microplastic Abundance, Persistence, and Distribution in Biosolid Applied Field Plots Over Time	Yes	175
Liam O'Hara	Sorption of Three Pesticides to Pristine and Weathered LDPE and PLA Microplastics	Yes	180
Eric Kanold	Polyester Microplastic Fibres Impact Arbuscular Mycorrhizal Fungi and Plant Performance	Yes	176
Serra-Willow Buchanan	Root Functional Trait Expression and Mycorrhizal Colonization under Realistic Microplastic Additions	No	179

<b>Session 6.1: General Soil Science</b>			
<b>Convenors:</b> TBD			
<b>Date:</b> Monday, June 26, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Tristan Chambers	Effect of KCl Addition on Crop Growth and Disease Incidence in Durum, Mustard, and Chickpea Grown at Two Different Landscape Positions in a South	Yes	190
Caitlin McCavour	Early Effects of Helicopter Liming on Soil and Vegetation in Two Acidified Forest Stands in Nova Scotia, Canada	Yes	182
Tram Thai	Belowground Nitrogen Transfer from Forage Legumes to Neighboring Grass in Grass-Legume Binary Mixtures	Yes	128
Quinn Hlus	Phosphorus in Simulated Rainfall Run-Off From Landscapes Receiving Variable and Constant Rate Applications of Cattle Manure	Yes	187
David Kweisi Abebrese	A Comparative Study of Conventional Tillage and Multi-Tillage Treatments under Multiple Soil Physicochemical Characteristics	Yes	165
Kuthandige Salani Uththara Fernando	Selecting the Most Suitable Lysimeter Type and Cleaning Method for the Optimal Determination of Trace Elements in Soil Solutions	Yes	101
Danissa Subramaniam	Influence of Stocking Density of Eisenia fetida on Vermistabilization Process of Paper Mill Sludge	Yes	225
Abdul Wahab	Electrokinetic Remediation Approach Towards As, Pb, Cu and Ni Extraction From Bukit Iban Iron Ore Mine Tailings at Pahang State, Peninsular Malaysia	Yes	133

<b>Session 6.2: General Soil Science</b>			
<b>Convenors:</b> TBD			
<b>Date:</b> Tuesday, June 27, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Andrew Hammermeister (30 min)	From Priorities to Practice: A Review of Organic Agriculture and its Contributions to Soil Science.	No	228
D Keith Reid	Phosphorus Fast or Slow: Lessons from Thirty-Five Years of Phosphorus Modelling.	No	185
Seth Lundell	Effects of Mutualistic Soil Bacteria on Growth of Salt-Adapted Alfalfa (Medicago sativa) in Saline Soil	No	188
Genevieve Telmosse	Saprotroph And Aricoid Mycorrhizal Fungi in a Wild Blueberry Farm Subject to Fertilization and Fungicide Applications	No	99
Robert Buchkowski	The Distribution and Establishment of Non-Native Earthworm Populations and their Impact on Organic Horizon Thickness in The Acadian Forest	No	184
Kingsley John	Detailed Investigation of Soil Properties and Elemental Concentration Variation Along a Hillslope Landscape using Multivariate Approaches	No	246

<b>Session 7: Hydrogeophysics to Support Precision Agriculture</b>			
<b>Convenors:</b> Lakshman Galagedara, Aitazaz Farooque, Asim Biswas			
<b>Date:</b> Tuesday, June 27, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Golam Rabbani	Estimation of Soil Organic Matter (SOM) using Electromagnetic Induction (EMI) Sensors	Yes	210
Sashini Pathirana	Potential of Utilizing Ground-Penetrating Radar to Calibrate Electromagnetic Induction for Shallow Soil Water Content Estimation	Yes	209
Raphael Deragon	Exploring Physical and Chemical Properties of Coprogenous Layers to Guide Proximal Sensing in Cultivated Organic Soils	Yes	208
Juwonlo Emmanuel Dahunsi	Evaluating the Relationship between Soil Infiltration Process and Ground Penetrating Radar Travel Time in Podzolic Soils	Yes	207
Ehsan Chatraei	Insights into Precision Agriculture for Potato Crop Yield Monitoring using UAV Imagery and Soil Parameter Analysis	Yes	10

<b>Session 8: Implementing Research on Farms</b>			
<b>Convenors:</b> Rosalie Madden, Caitlin McCavour, Carolyn Marshall			
<b>Date:</b> Wednesday, June 28, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Jordan Grigg	Experimental Acres: A Municipal Pilot Incentivizing Sustainable Agricultural Practices in Wellington County, Ontario.	No	214
Stephanie Lavergne	When Researchers, Producers and Stakeholders Work Hand in Hand to Develop the Organic Field Crop Sector: A Story from Abitibi-Temiscamingue (Q)	No	215
Judith Nyiraneza	Primary Non-Inversion Shallow Tillage Versus Moldboard Plow Prior to Growing Potatoes: Impacts on Potato Yield and Soil Properties in Prince Edwa	No	195
Michael Preston	Living Labs: Evaluating the Impact of Forage Best Management Practices on Soil Organic Stocks and N2O Emissions in Northern British Columbia	No	216
Sirajum Munira	Misinformation and Disinformation in Agriculture: Why Does it Matter?	No	189

<b>Session 9: Measuring and Predicting Soil Nitrogen Mineralization</b>			
<b>Convenors:</b> David Burton			
<b>Date:</b> Wednesday, June 28, 2023			
<b>Time Slot:</b>			
Presenter	Abstract	Competition	Abstract #
Kate Congreves (30 min)	Turning Over a New Leaf for Nitrogen Management	No	226
Luke Laurence	Scaling Up Estimates of Growing Season N Mineralization: Increasing Accessibility Through Spatial and Non-Spatial Based Approaches	No	217
Hardy Strom	Measuring Biological Nitrogen Availability	No	193
Mervin St. Luce	Effect of Canola Frequency and Nitrogen Fertilization on Nitrogen Mineralization Potential	No	218
Qianhan Le	Effect of Different Biosolids on Soil N Mineralization and N-acquiring Enzyme Activities in an Acidic Soil	Yes	219
Yvonne Uwituze	Carbon, Nitrogen, Phosphorus and Extracellular Soil Enzyme Responses to Different Land Use	No	193
Teri Balsler	The N cycle as a Learning Challenge: Using a Game-Based Approach to Improve Understanding and Increase Interest	No	239

<b>Session 10: Mechanized Approaches to Supporting Precision Soil Management</b>			
<b>Convenors:</b> Travis Esau, Aitazaz Farooque			
<b>Date:</b> Tuesday, June 27, 2023			
<b>Time Slot:</b>			

Presenter	Abstract	Competition	Abstract #
Craig MacEachern	Development and Potential of a Precision Spot Applicator for Spot Specific Soil Amendment Using Granular Agrochemicals	Yes	15
Patrick Hennessy	Real-Time Variable Rate Application System for Soil Applied Fertilizer using a 9-Axis Internal Measurement Unit	Yes	17
Zeshan Haydar	Assessing the Feasibility of UAV-Based Imagery and Lidar Sensor for Digital Elevation Model Estimation: Adaptation for Wild Blueberry Harvester Auto	Yes	238
Andrew Fraser	Electrical Conductivity and Remotely Piloted Aircraft for Detection of Soil Compaction and Monitoring Crop Growth	Yes	237
Mathieu Bilodeau	Advancing Topographic Feature Mapping: Utilizing Mask R-CNN and LIDAR for Dykelands Extraction in Eastern Canada	Yes	16
Evan MacDonald	Soil, Water, and Topography Maps as a Management Tool to Improve Profitability and Sustainability within the Potato Industry	Yes	229
Nauman Yaqoob	Exploring the Potential of Soil Water and Topographic Maps for Precision Irrigation	Yes	242

#### Session 11.1: Mitigation of Soil Nitrous Oxide Emissions from Canadian Agriculture

Convenors: David Pelster, Erin Smith  
Date: Tuesday, June 27, 2023

Presenter	Abstract	Competition	Abstract #
Craig Drury (30 min)	From "Hole-in-the-Pipe" to "Pipes & Valves": Managing Fertilizer Nitrogen Loss from Soils	No	21
Laura Carruthers	Nitrogen Use Efficiency and Nitrous Oxide Dynamics in Prairie Potato Production	Yes	25
Sithabile Nyathi	Efficacy of New Nitrogen Stabilizer Products in Reducing nitrous oxide emission from urea	Yes	32
Haben Asgedom	Meta-Analysis: Nitrous Oxide Emission and Nitrogen Management Practices of Canadian Studies	No	23
Mario Tenuta	Fertilizer Nitrogen Source and Application Timing Reduce N <sub>2</sub> O Emissions from Spring Wheat Production in Manitoba	No	234
Tom Bruulsma	Recognizing Fertilizer Practices that Mitigate Greenhouse Gas Emissions	Yes	33
Mario Tenuta	Placement and N Source Effects on N <sub>2</sub> O Emissions from Canola Production in Manitoba	No	235

#### Session 11.2: Mitigation of Soil Nitrous Oxide Emissions from Canadian Agriculture

Convenors: David Pelster, Erin Smith  
Date: Tuesday, June 27, 2023

Presenter	Abstract	Competition	Abstract #
Azeem Tariq	Increase in N <sub>2</sub> O emissions with cover crops in diverse crop rotations can be mediated with dual fertilizer inhibitors	Yes	19
Olivia Blumenthal	Diversified Crop Rotation Impacts Nitrous Oxide Producing Microbes During Spring Thaw	Yes	27
Dilrukshi Kombala Liyanage	Getting to the root of it: detailed lab and field investigations of cover crop root effects on N <sub>2</sub> O emissions from agricultural soils	Yes	22
Chih-Yu Hung	Canada's Progress in Understanding N <sub>2</sub> O And Other GHGs Emissions from Manure-Amended Soils	Yes	20
Shannon Mustard	N <sub>2</sub> O Emissions from The Long-Term TGAS MAN Research Site in The Red River Valley: A Challenging 2022 Growing Season	Yes	31
Jessica Chadwick	Reducing Nutrient Losses from Agricultural Soils Through Nanomaterial Co-Application with Fertiliser	Yes	24
Anthony Pelletier	Impact of Conventional and Industrial By-Products Fertilization on Greenhouse Gas Emissions from a Wild Lowbush Blueberry Field	Yes	18

#### Session 11.3: Mitigation of Soil Nitrous Oxide Emissions from Canadian Agriculture

Convenors: David Pelster, Erin Smith  
Date: Wednesday, June 28, 2023

Presenter	Abstract	Competition	Abstract #
Mario Tenuta	Placement and N Source Effects on N <sub>2</sub> O Emissions from Canola Production in Manitoba	No	235
Sean Smukler	Meeting GHG Emission Targets with Natural Climate Solutions for British Columbia Agriculture	No	30
Pedro Vitor Ferrari Machado	Nitrous Oxide Emissions from Grazing Animal Excreta In Pastures Under Dry Climate	No	28
Lucy Ross-Blevis	Wood Mulch Controls N <sub>2</sub> O Emission from Arable Organic Soil	No	26
Richard Farrell	Discovering the Optimal Rate of a Dual-Inhibitor N-Fertilizer for Maximum N <sub>2</sub> O Emissions Reduction	No	29
Xiaopeng Gao	A Global Meta-Analysis of the Effect of Livestock Grazing on Soil N <sub>2</sub> O Emissions and Associated Functional Genes	No	34

#### Session 13: Roles of Cover Crops in Enhancing Soil Health and Nutrient Cycling

Convenors: Judith Nyiraneza, Mervin St. Luce  
Date: Wednesday, June 28, 2023

Presenter	Abstract	Competition	Abstract #
Caroline Halde	Solar Corridor Cropping Systems: Effects of Row Spacings and Interseeded Cover Crops on Soil Health, Nitrous Oxide Emissions, and Crop Yields	No	47
Arati Sapkota	Crop Residue Effect on Carbon Mineralization and Aggregate Stability: An Incubation Study	Yes	45
Cameron Wagg	Cover Crop Dominance and Trait Diversity Effects on Soil Health	No	46
Daniel Colcuc	Harvesting a Cover Crop for Forage Slightly Increased Corn Nitrogen Fertilizer Requirement in Successive Year in Ontario, Canada.	Yes	48
Xueming Yang	Summer-Seeding Legumes and Termination Methods Impact on Corn Yields: 2 Case Studies in Southwestern Ontario	No	54
Jingyi Yang	Impact of Climate Change on Crop Yield, Soil Organic C and Nitrate Leaching	No	50
Kennedy Choo-Foo	Can Pea-Oat and Pea-Canola Intercrops Reduce Nitrogen Fertilizer Applications Without Compromising Yield?	Yes	52

#### Session 14.1: Soil Amendments in Agricultural Environments

Convenors: Gordon Price  
Date: Tuesday, June 27, 2023

Presenter	Abstract	Competition	Abstract #
Landon Orenchuk	Landscape Variations in Surface Soil Phosphorus Forms Across Farm Fields in Saskatchewan	Yes	70
Viranga Weerasinghe	Spring Snowmelt Runoff of Phosphorus and Metals from Manured Soils	Yes	191
Dasina Subramaniam	Influence of Stocking Density of Eisenia Fetida on Vermistabilization Process of Paper Mill Sludge	Yes	64
Gnanakaran Maheswaran	Potentials and Limitations for Using Wood Ash from Industry for Agriculture and Forestry Use in Canada	Yes	66
Indeewari Ashirwadini Bandara	Paper-Sludge Vermicompost Amendment for Improved Yield of Kale, and Physicochemical Properties in Newfoundland Podzolic Soils	Yes	69
Weixi Shu	Fate and Transport of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) in Soils and Soils Receiving Land Applied Alkaline Treated Biosolids in Nova Sc	Yes	75
Zheya Lin	Effect of Municipal Biosolids Land Application on Soil Carbon Storage	Yes	77
Yeukai Katanda	Potential Utilization of Paper Mill Wood Ash as a Soil Amendment for Liming and Quality Improvement of Podzolic Soils.	Yes	222

#### Session 14.2: Soil Amendments in Agricultural Environments

Convenors: Gordon Price  
Date: Tuesday, June 27, 2023

Presenter	Abstract	Competition	Abstract #
Gnanakarean Maheswaran	Alfalfa Growth and Cadmium Uptake from Podzol Soil Amended with Ash, Biochar, and Compost	Yes	67
Alejandro Quezada	Carbon Sequestration Potential and Carbon Footprint Impact of Municipal Organic Waste Management Strategies into Applied Soils.	Yes	59
Okundia Rex Osabougbe	Response Of Telfairia Occidentalis to The Combined Application of Rubber Effluent and Urea in an Ultisol, Southern Nigeria	Yes	72
Rebecca Oiza Enesi	Liming Remediates Soil Acidity And Improves Crop Yields and Profitability: A Meta-Analysis.	Yes	73
Lina Du	Size Fractionation of Trace Elements in Soil Solutions Recovered from Soils Under Contrasting Long-Term Agricultural Management	Yes	71
Yvonne Uwituzo	Soil Nutrient and Microbial Community Dynamics After Shrub Willow Chips Application	Yes	76
Busayo Kodaolu	Phosphorus Availability and Corn (Zea Mays L.) Response to Application of P-Base Commercial Organic Fertilizers to a Calcareous Soil	Yes	61
Gurpal Toor	Characterization of Phosphorus Pools in Biosolids and Biosolids-Amended Soils	Yes	68

#### Session 14.3: Soil Amendments in Agricultural Environments

Convenors: Gordon Price  
Date: Wednesday, June 28, 2023

Presenter	Abstract	Competition	Abstract #
Darshani Kumaragamage	Crop Responses to Phosphorus-Sorbing Inorganic Chemical Amendments in an Alkaline Soil	No	62
Darshani Kumaragamage	Soil Amendment of Alum, Gypsum, and Magnesium Sulfate in the Fall to Mitigate Phosphorus Loss to Snowmelt in the Following Consecutive Spring	No	63
Anel Dannhauser	Biochar and Ash Amendments on Prairie Soils to Improve Soil Properties, Productivity And Reduce Nutrient Losses in Runoff	No	60
Srimathie Indraratne	Reduction of P Losses by Treating Manure with Alum, Gypsum Or Epsom-Salt From Manured Soils Under Simulated Snowmelt Flooding	No	74
Daniel Emiru Olana	Valorizing Alternative Organic Sources for Soil Amendments in Ethiopia.	No	136

#### Session 15.1: Soil Health - Measurement & Management

Convenors: Derek Mackenzie, Bobbi Helgason  
Date: Monday, June 26, 2023

Presenter	Abstract	Competition	Abstract #
David Lobb	Conservation Tillage Has Limited Impact In Restoring Crop Yields On Severely Eroded Landscapes	No	96

R. Gary Kachanoski	Managing Farm Field Variability: Soil Health/Quality and Crop Response	No	112
Barbara Cade-Menun	Does Management to Improve Soil Health Negatively Affect Soil Phosphorus Cycling?	No	94
Miles Dyck	Sensitivity of Physical Soil Health Indicators to Long-Term Crop Rotation and Fertilization	No	108
Maren Oelbermann	A Low Dosage and One-Time Application of Biochar and its Impact on Temperate Soil Health	No	105
Laura L. Van Eerd	New Investments in Ontario on Soil Health And Ecologically-Based Beneficial Management Practices (EcoBMPs).	No	102
Jean-Benoit Mathieu	Evolution of Soil Health in Quebec Between 1990 And 2020.	No	243
Marc-Oliver Gasser	The Physical Condition of Soils Revealed In Québec's Soil Health Study Of Agricultural Soils.	No	244

#### Session 15.2: Soil Health - Measurement & Management

Convenors: Derek Mackenzie, Bobbi Helgason

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Charlotte Norris (30 min)	TBD	No	TBD
Erika Helen Young	A Survey of Free-Living Nematodes of the Atlantic Region of Canada and a Comparison of Morphological and Molecular Methods	Yes	98
Melanie Gauthier	Developing Scoring Functions Based on Soil Texture to Assess Soil Health at a Provincial Scale In Quebec	Yes	104
Nazamin Ghavami Shirehjin	Survey and Development of Molecular Soil Test for Soybean Cyst Nematode in Manitoba	Yes	110
Neem Lal Pandey	Establishing a Benchmark for Soil Health in High Organic Matter (Muck) Soils	Yes	111
Roya Faramarzi	How do Management Practices Across Ecoregions Impact Soil Microbial Diversity and Aggregate Stability as Soil Health Indicators?	Yes	113

#### Session 15.3: Soil Health - Measurement & Management

Convenors: Derek Mackenzie, Bobbi Helgason

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Laura van Eerd (30 min)	TBD	No	TBD
Lina Du	Size Fractionation of Trace Elements in Soil Solutions Recovered from Soils Under Contrasting Long-Term Agricultural Management	Yes	103
Stephanie Lavergne	Does Intensive Organic Farming Promote Soil Health?	Yes	114
Thidarat Rupngam	Changes in Soil Phosphorus Availability in Response to Dairy Manure Application and Soil Moisture Regimes	Yes	116
Ehsan Zarrinabadi	Assessment of Soil Erosion using 137Cs in the Canadian Prairie Pothole Region	Yes	97
Clemence Multire	Temporary Changes in Soil Health Indicators Following Reclamation of Natural Gas Pipeline Right-Of-Ways on Cropland	Yes	95
Michael Paulauskas	Assessing Land-Use Legacy Effects on Soil Physico-Chemical Properties in Urban Parks	No	107

#### Session 17.1: Soil Organic Matter Characterization, Cycling, and Stability

Convenors: Adam Gillespie, Sevendeep Kaur

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Amanda Mitchell	Buried Surface Horizons Provide Insight into C Stability	Yes	135
Erin Burton	Soil Organic Matter Can Protect Yield - A Multisite and Multiyear Field Analysis	Yes	137
Hongjie Zhang	Understanding the Persistence of Soil Organic Carbon with Land Use in Prairie Agroecosystems	No	138
Jeremiah Vallotton	Soil Respiration Across Land Uses in Atlantic Canada	No	140
Jordan Kersey	Long-Term use of Regenerative Management Practices to Mitigate And Adapt to Climate Breakdown in Coastal Agricultural Systems Of Southwestern B	Yes	141
Richard Tingskou	Differential Carbon Cycling in Plough Layer of Podzol Designated for Land-Use Conversion	Yes	143
De Shorn Bramble	Mineral Type, Land Use and Management Intensity Control the Formation of Mineral-Associated Organic Matter in Temperate Soils	Yes	171

#### Session 17.2: Soil Organic Matter Characterization, Cycling, and Stability

Convenors: Adam Gillespie, Sevendeep Kaur

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Yajun Peng	Method Matters: Long-Term Tillage Experiment Reveals that Fixed Depth Overestimates Carbon Stocks within Soil Profile	Yes	192
Brent Seuradge	Northern Boreal Forest Conversion to Agricultural Landscapes Alters Soil Microbial Carbon and Nitrogen Cycling Potential	No	181
Kehinde Adams	Carbon Mineralization of Root Exudate Proxies in Soils from Different Depths	Yes	240
Jessica Mehre	Adaptive Multi-Paddock Grazing Is a Climate-Smart Practice in Southern Ontario	Yes	127
Paul Manning	Quantifying the Impact of Dung Beetle Activity on Greenhouse Gas Emissions from Mink Manure	No	186
Charlotte Norris	Post-Fire and Harvest Legacy on Soil Carbon And Microbial Communities in Boreal Forest Soils	No	183

#### Session 17.3: Soil Organic Matter Characterization, Cycling, and Stability

Convenors: Adam Gillespie, Sevendeep Kaur

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
M. A. C. K. Hansima	Effect of Humic and Fulvic Acids from Dissolved Organic Carbon Fraction of Swine Manure on the Sorption of Sulfamethoxazole onto Smectite Clays	Yes	142
Lori Phillips	Biotic and Abiotic Drivers of Soil 13C Isotope Abundance in an Agricultural Field	No	232
Moazame Mesgar	Soil Organic Matter Stability as Evidence of Solid-State 13C NMR and Laboratory Mineralization Study	Yes	240
Francis Durrin-Vermette	Using Bayesian Techniques to Parameterize Manure Amendments for Soil Carbon Models and Improve Canada's Carbon Sequestration Estimations	Yes	233
Maren Oelbermann	Long-Term Soil Organic Carbon Dynamics in Perennial Bioenergy Crops using the Century Model	No	172
Roland Kroebel	An Added Anaerobic Digestion Component to the Holos V4 Whole-Farm Model	No	41
Jeremiah Vallotton	Variability in the Soil Carbon Stocks and Carbon Lability Across Management Gradients: A Pan-Global Survey of Boreal Regions	No	100

#### Session 18: Soil Spectroscopy

Convenors: Gordon Price

Date: Tuesday, June 27, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Catherine Chavez	Kinetics and Adsorption of Organic Phosphorous Compounds onto Ferrihydrite using In Situ ATR-FTIR Spectroscopy	No	151
Gbenga Daniel Adejumo	Soils Go Digital: Is FT-NIR Spectroscopy a Realistic Alternative for Agricultural Soil Analysis in Saskatchewan?	Yes	154
Grace Gowera	Estimating Soil Carbon and Total Nitrogen Using Soil Spectroscopy	Yes	155
Stuart Downie	Application of Mid-Infrared Spectroscopy to Monitor Changes in Soil Parameters in Soil Receiving Five Organic Amendments	Yes	157
Ibrahim Mohammed	Application of Two-Dimensional NMR Spectroscopy for Probing Structural Environment of Humic Acid From Soils Amended with Different Organic Ar	Yes	139

#### Session 19: The Range of Soil Water Influence

Convenors: Hida Manns

Date: Monday, June 26, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
Nome Balla Ndiaye	The Effect of Soil Moisture on the Physiological Parameters of Millet and Groundnut During a Period of Water Deficit at the Beginning of Rainy Season.	Yes	168
Sheng Li	Controlled Traffic Farming on Commercial Potato Fields in Atlantic Canada – Preliminary Results of Soil Hydrological Properties and Potato Biomass a	No	223
Kamal Ziaul Islam	Evaluating the Performance of the SWAT Model in a Boreal watershed: A Case Study of the Upper Humber River Watershed, NL, Canada	Yes	166
Blake Weiseth	Impact of Fertilizer Phosphorus (P) Source, Rate, and Placement Strategy On Pea Yield, Nutrient Uptake, and P Losses in Snowmelt Runoff Water Acros	Yes	164

#### Special Session: Preparing the Next Generation of Canadian Field Soil Scientists

Convenors: Richard Heck

Date: Wednesday, June 28, 2023

Time Slot:

Presenter	Abstract	Competition	Abstract #
CSSS Education Committee	Perspectives of the CSSS Education Committee	No	
CSSS Pedology Committee	Perspectives of the CSSS Pedology Committee	No	
Konstantin Dlusskiy & Jim Warren	Practicing Soil Science in Canada	No	
Dawn Gibas	'Certified Professional Soil Scientists' Program	No	
John M. Galbraith	'International Soil Judging Contest'	No	
Richard Heck & Jacynthe Masse	Leveraging the 24th WCS	No	