

• SHARING RESEARCH •



that
**GROWS
ORGANIC**

**2nd CANADIAN ORGANIC
SCIENCE CONFERENCE**

September 19-21, 2016 • MONTRÉAL-LONGUEUIL (QUÉBEC) CANADA

PROGRAM

www.craaq.qc.ca/cosc2016

THIS EVENT IS ORGANIZED BY:



RESEARCH AND DEVELOPMENT
INSTITUTE FOR THE
AGRI-ENVIRONMENT

WITH THE COLLABORATION OF:



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THANKS TO OUR SPONSORS FOR SUPPORTING RESEARCH IN ORGANIC AGRICULTURE. [CLICK HERE TO CONSULT THE LIST.](#)

Sunday 18



6:00 to 9:00 pm

Hotel lobby

Welcome reception and registration

A great opportunity to mingle with colleagues and meet new collaborators!
(Registration desk, poster setup, and presentation upload station available)

Recherchez ce symbole pour connaître les conférences traduites en français!

Monday 19

7:30 am

Hotel lobby

Registration (registration desk, poster setup, and presentation upload station available)

Room

DUBOIS AGRINOVATION

LA TERRE DE CHEZ NOUS

IRDA

8:15 to 10:30 am

Session

Session chair:
Josée Boisclair



8:15 to 8:30 am

Welcome and opening remarks



8:30 to 9:30 am

Organic 3.0 (#1)



Plenary keynote speaker:

Markus Arbenz, Executive Director, International Federation of Organics Agriculture Movements (IFOAM)

9:30 to 10:30 am

An Overview of the Canadian Organic Sector



Panel discussion:

Andrew Hammermeister, Organic Agriculture Centre of Canada, Dalhousie University

Tia Loftsgard, Canada Organic Trade Association

Nicole Boudreau, Organic Federation of Canada

To be determined, Filière Biologique du Québec

Ashley St Hilaire, Canadian Organic Growers

10:30 to 11:00 am - COFFEE BREAK, POSTER SESSION AND STAND VISITS - Room Lafontaine

Room

DUBOIS AGRINOVATION

LA TERRE DE CHEZ NOUS

IRDA



Session

Horticultural Crops

Session chair: Maryse L. Leblanc

Putting Organic Research into Context

Session chair: Joanne White

Field Crops

Session chair: Margaret Graves

11:00 to 11:30 am

Current Trends for Temperate Organic Tree Fruits in North America (#5)

Invited session speaker:

David Granatstein,
Washington State University

Keeping Up to Date with Consumer Perceptions as well and How Is the Market Able to Meet These Demands? (#14)

Invited session speaker:

Tia Loftsgard,
Canada Organic Trade Association

Open discussion:

Genetic Engineering and Organic Agriculture

11:30 to 11:45 am	Growing High-Density, High-Value Apple Plantings under Row-by-Row Exclusion Nets: Effects on Pests and Fruit Quality Gérald Chouinard (#6)	Organic Research that is Innovative and Fundamental (#15) <i>Invited session speaker:</i> Ralph C. Martin, University of Guelph	Evaluation of a New Method for the Sowing of Clovers in Cereals Jean Duval (#20)
11:45 to 12:00 pm	Impact of Silicon Amendments on Strawberry Powdery Mildew Control in Poly-Tunnel and Field Productions Marie-Hélène Goyette (#7)		Effect of AM Fungal Inoculation and Soil P Fertilizers on Bacterial Assemblages Colonizing the Roots of Pulse Crops under Organic Farm Management Rim Klabi (#21)

12:00 to 1:30 pm - LUNCH - Bistro de Sérigny

Room	DUBOIS AGRINOVATION	LA TERRE DE CHEZ NOUS	IRDA 
Session	Horticultural Crops <i>Session chair:</i> Josée Boisclair	Putting Organic Research into Context <i>Session chair:</i> Andrew Hammermeister	Field Crops <i>Session chair:</i> Derek Lynch

1:30 to 2:00 pm	Production, Consumer Trends, Research Development and Market Opportunities of Organic Protected Vegetables in the 21 st Century (#8) <i>Invited session speaker:</i> Martine Dorais, Agriculture and Agri-Food Canada	Value Added Opportunities for Organic Agriculture - Building the Future (#16) <i>Invited session speaker:</i> Gunta Vitins, Resilient Solutions Consulting	Panel Discussion on Participatory Plant Breeding, <i>with:</i> - Daniel Brisebois, Tourne-Sol Co-operative Farm - Loïc Dewavrin, Le Moulin des Cèdres - Martin Entz, University of Manitoba - Helen Jensen, USC Canada
2:00 to 2:15 pm	High Tunnels Can Be Used for Organic Vegetable and Nutraceutical Crop Production in Southern Ontario Youbin Zheng (#9)	Role of an Advisory Committee on Organic Research in the Design and Execution of Research Projects Myriam R. Fernandez (#17)	
2:15 to 2:30 pm	Nitrogen Mineralization Rate of Five Organic Fertilizers Commonly Used for Greenhouse Fruit and Vegetable Crops Pierre-Paul Dion (#10)	Translating Scientific Knowledge for Farmer Adoption: A Green Manure Model Joanna L. MacKenzie (#18)	
2:30 to 2:45 pm	Fertilization Management of Organic Greenhouse Soil-Less Cucumber Martine Dorais (#11)	Farm System Co-Design for Sustainable and Successful Organic Farming Joanne Thiessen Martens (#19)	Farmer Participatory Plant Breeding for Organic Production in Canada: Summary of the Last 4 Years Martin H. Entz (#22)
2:45 to 3:00 pm	Intracanopy LED Lighting Effects on Yield and Fruit Quality of Greenhouse Vegetable Crops Steeve Pepin (#12)	—	Nutrient Availability from Soil Test and Resin Methods following Compost Manure Application to Commercial Organic Field Crops Terence P. McGonigle (#23)

3:00 to 3:15 pm	Permanent Raised Beds for Vegetable Crops Denis La France (#13)	—	Reducing Fungal Infestation in Growing Groundnuts through Biocontrol Methods that Can Increase Crop Safety by Decreasing Aflatoxin Content Medhin H. Kifle (#24)
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3:15 to 4:30 pm - COFFEE BREAK, POSTER SESSION AND STAND VISITS - Authors are present - Room Lafontaine

4:30 to 6:00 pm - BREAK - Free time

6:00 to 6:45 pm - COCKTAIL - Hotel lobby

6:45 to 8:45 pm	Banquet 
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8:45 to 11:30 pm - LIVE MUSIC AND DANCING - Jacynthe Guimond and her musicians

Tuesday 20

Hotel parking	Departing from and returning to Sandman Hotel Montreal-Longueuil 
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8:00 am to 5:30 pm	<p>Three options for full-day field tours are offered to participants (see page 11):</p> <p>Option A: Field crops – Visits to 3 organic farms</p> <p>Option B: Livestock – Visits to 3 organic farms</p> <p>Option C: Horticulture – Visits to 2 organic farms and the Organic Agriculture Innovation Platform at the IRDA Research Center, Saint-Bruno-de-Montarville</p>
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Evening - DINNER ON YOUR OWN

Wednesday 21

7:30 am Hotel lobby	Registration (registration desk, poster setup, and presentation upload station available)
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Room	DUBOIS AGRINOVATION	LA TERRE DE CHEZ NOUS	IRDA
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8:00 to 10:00 am Session	<i>Session chair:</i> Andrew Hammermeister 
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8:00 to 9:00 am	The Science behind the Organic Movement (#2)  <i>Plenary keynote speaker:</i> Urs Niggli , Research Institute of Organic Agriculture (FiBL) - by videoconference
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9:00 to 10:00 am	Organic-Plus for a Sustainable Future (#3)  <i>Plenary keynote speaker:</i> Nadia El-Hage Scialabba , FAO
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10:00 to 10:30 am - COFFEE BREAK, POSTER SESSION AND STAND VISITS - Room Lafontaine

Room	DUBOIS AGRINOVATION	LA TERRE DE CHEZ NOUS	IRDA 
Session	Weed management <i>Session chair: Jean Duval</i>	Soils and the environment <i>Session chair: Anaïs Charles</i>	Livestock <i>Session chair: François Labelle</i>

10:30 to 10:45 am	Optimizing Weed Control in Grain Crops (#25) <i>Invited session speaker:</i> Steve Shirliffe , University of Saskatchewan	Wheat Productivity and Nitrogen Uptake following Green Manure Precrops and Biofertilizer Supplementation Simon Lachance (#34)	State of Science Concerning Organic Poultry Production in Europe (#45) <i>Invited session speaker:</i> Monique Bestman , Louis Bolk Institute
10:45 to 11:00 am		Legume Crops Effects on Nitrogen Availability to Subsequent Crop in Organic Farming Paul Deschênes (#35)	
11:00 to 11:15 am	Assessment of Biofumigation for Weed Control in Organic Agriculture Maxime Lefebvre (#26)	Effects of Green Manure Termination Method on Agronomic and Soil Properties in an Organic Grain Rotation Carolyn B. Marshall (#36)	How Much Can Different Aspects of Dairy Cow Welfare be Improved by Providing Yearlong Regular Exercise to Dairy Cows Kept in Tie-Stalls? Santiago Palacio (#46)
11:15 to 11:30 am	Perennial Sow-Thistle and Canada Thistle Vegetative Propagation and Regenerative Capacity in Organic Field Crops Maryse L. Leblanc (#27)	Impact of Cover Crops and Fertilization Methods on Yields and Quality of Organic Carrot in a Muck Soil Caroline Côté (#37)	Would Organic Dairy Cows with Year-Long Outdoor Experience Choose to Spend Time at Pasture over their Free-Stall Barn? Elise Shepley (#47)
11:30 to 11:45 am	The Use of Spring Fallow and Mechanical Weed Destruction to Combat Sow Thistle, Canada Thistle and Coltsfoot in Organic Field Crop Production in Southern Québec Anne Weill (#28)	Impact of Cover Crops and Combinations of Organic Fertilizers in Organic Carrot Cropping System Assessed by Metagenomic Analysis of Soil Bacterial Diversity Thomas Jeanne (#38)	Switchgrass as an Alternative Bedding for Dairy Cows Housed in Tie-Stalls Renée Bergeron (#48)
11:45 to 12:00 pm	Organic Weed Management in Perennial Fruits Andrew M. Hammermeister (#29)	Life Cycle Analysis for Wheat Production in Organic, Pesticide Free, Conventional and Intensive Systems Élisabeth Vachon (#39)	Plant Bioactive Products and Internal and External Parasite Control in Dairy Production Simon Lachance (#49)

12:00 to 1:00 pm - LUNCH - Bistro de Sérigny		HAVE LOOK AT THE ACTIVITIES HELD AS OF 12:30 !	
Room	DUBOIS AGRINOVATION	LA TERRE DE CHEZ NOUS	IRDA 
12:30 to 1:50 pm	—	—	Workshop: Prioritization of Organic Research Needs Andrew M. Hammermeister (#4) Prioritizing Research for the Evolution of Organic Agriculture
Session	—	—	Session chair: Nicole Boudreau, Organic Federation of Canada
1:00 to 2:00 pm - POSTER SESSION AND STAND VISITS - Authors are present - Room Lafontaine			
Session	Crop pests <i>Session chair: Gérald Chouinard</i>	Soils and the environment <i>Session chair: Caroline Halde</i>	Livestock <i>Session chair: Simon Dufour</i>
2:00 to 2:15 pm	Toward a Comprehensive Solution for the Biological Control of Wireworms in Organic Crops (#30) <i>Invited session speaker:</i>	Intensifying Organic Production while Maintaining Soil Health and Farm Agroecological Attributes (#40) <i>Invited session speaker:</i>	A Systematic Review of Non-Antimicrobial Treatments of Clinical Mastitis in Dairy Cows David Francoz (#50)
2:15 to 2:30 pm	Todd Kabaluk, Agriculture and Agri-Food Canada	Derek Lynch, Dalhousie University	
2:30 to 2:45 pm	Development and Validation of an Organic Sanitation Treatment for Alfalfa Sprouting Seed: Effect of Mild Heat and Non-Chlorine Sanitizers Siyun Wang (#31)	Meta-Analysis of Cover Cropping Systems under Organic and Conventional Management: The Effects of Cover Crops on Subsequent Cash Crop Yields and Nitrogen Contribution Anaïs Charles (#41)	Panel Discussion on Organic Dairy Research, <i>with:</i>
2:45 to 3:00 pm	The Efficacy of Quassia Extract MD in the Control of European Apple Sawfly in Apples Julia Reekie (#32)	Green Manures for Organic Production: A Prairie-Centric Literature Review with Broad Outcomes Joanna L. MacKenzie (#42)	- Valérie Bélanger, Novalait
3:00 to 3:15 pm	Hydrophobic Polymer Exclusion Nets Ariane B. Bérard (#33)	Soil Biological Activity in Biochar-Amended-Organic Greenhouse Tomato Crops – Study Case for Six Types of Soil François Gagnon (#43)	- Monique Bestman, Louis Bolk Institute
3:15 to 3:30 pm	—	Restoring Yield Productivity and Soil C in Organic Farming Systems on the Prairies Martin H. Entz (#44)	- Bryan Denis, Ferme Denijos
			- Simon Dufour, Université de Montréal
			- François Labelle, Valacta
			- Linda Labrecque, Ferme Desgemo
			- Elsa Vasseur, McGill University
3:30 pm - END OF THE CONFERENCE			

POSTERS (40)

Room	LAFONTAINE	
Session Horticultural Crops 9 posters	#51	Babalola Busayo Joshua Greenhouse Production of Tomato cv. 'Nkansah Heat Tolerant' Variety of Tomato on Ameliorated Soil.
	#52	Béatrice Perron Optimising Fruit Load and Stem Density in a Semi-Closed Organic Tomato Greenhouse.
	#53	Paul Deschênes Irrigation Strategies for Organic June-Bearing Strawberry "Clery" Improving Nutrient Management.
	#54	Ekene M. Iheshiulo Haskap Response to Soil Nutrient Status, Compost and Compost Placement.
	#55	Jean Duval Penetration of Fungicides Through Insect Nets and their Effect on the Durability of the Nets.
	#56	Gérald Chouinard Producing High-Quality Honeycrisp Apples under Exclusion Nets : How to Allow Pollination while Excluding Pests?
	#57	Noémie Gagnon Lupien Evaluation of Single-Plot Nets for the Protection of Apple Trees against Insect Pests without Pesticides.
	#58	John O'Sullivan New Innovative Weed Management Products for Organic Crop Production.
	#59	Amanda L. Stefanson Novel Carrot-Derived Oxylin (CX) Confers Acute And Systemic Anti-Inflammatory Effect In The Liver And Small Intestine.
Session Field Crops 7 posters	#60	Myriam R. Fernandez Impacts of Reduced Tillage and Diversified Cropping under Organic Management on Common Wheat Productivity in the Brown Soil Zone of Western Canada.
	#61	Myriam R. Fernandez Examining Intercropping in Saskatchewan under Organic and Conventional Cropping Systems.
	#62	Christine Landry <i>Impact des cultures de couverture et des engrais de ferme sur la dynamique saisonnière de l'azote disponible dans la culture de la carotte biologique en terres noires.</i>
	#63	Christine Landry <i>Impacts de divers types de fumures animales et d'engrais verts en production biologique de grandes cultures sur la dynamique saisonnière de l'azote disponible dans la culture du maïs-grain.</i>

Session Field Crops (cont'd) 7 posters	#64	Josée Boisclair Chia: A New Crop for Organic Production in Québec, Results from 2015 Preliminary Trial.
	#65	Y.V. Singh Influence of Organic Farming in Aromatic Rice Based Cropping System on Productivity, Quality, Soil Carbon Sequestration and Climate Change.
	#66	Yunliang Li Phosphorus Sources and Arbuscular Mycorrhizal Inoculation to Improve Organic Crop Yield.
Session Weed management 4 posters	#67	Oleksandr S. Alba The Effect of Mechanical Weed Control (Rotary Hoeing, Post-Emergence Harrowing and Inter-Row Cultivation) and Crop Seeding Rate on Yield and Weed Suppression in Organically Grown Pea and Lentil.
	#68	Noémie Gagnon Lupien Effect of Irrigation Regimes on Weed Control in Organic Cranberry Production.
	#69	Maryse L. Leblanc Herbicidal Potential of Essential Oils.
	#70	Julia Y. Leeson Weeds under Reduced Tillage and Diversified Organic Cropping Systems in the Brown Soil Zone of Western Canada.
Session Crop pests 4 posters	#71	Franz Vanoosthuysse The Control of Tarnished Plant Bug in Organic Strawberry Field.
	#72	Daniel Cormier Large-Scale Implementation of Mating Disruption in Organic and Conventional Apple Orchards to Reduce Insecticide Applications in Quebec.
	#73	Josée Boisclair Study of a Flowering Strip and its Impact on Natural Enemies of Lepidopteran Pests of Organic Cole Crops in Québec – First Results.
	#74	Josée Boisclair Evaluation of Seed Treatments in Hullless Pumpkin Seed Production.
Session Soils and the Environment 10 posters	#75	Yantai Gan Effect of Green Manures on Residual Soil Water, Available N and Subsequent Durum Wheat Yield in Dryland Agroecosystems.
	#76	Steve Lamothe Evaluation of Cover Crop Planting Date on Lettuce in Two Soil Types.
	#77	Olanike O. Aladenola Influence of Allelopathic Cover Crops and Their Residues on the Growth of Perennial Thistles in the Brown Soil Zone.
	#78	Caroline Halde Root and Shoot Characterization of Four Cover Crop Species.

Session Soils and the environment (cont'd) 10 posters	#79	Mohammed Z. Alam The Effect of Green Manure and Organic Amendments on Wheat Yield, Nitrogen Uptake and Soil Mineral Nitrogen.
	#80	Joanne R. Thiessen Martens Assessing Nutrient Status of Organic Grain Farms on the Canadian Prairie.
	#81	C.-Y. Lay Impact of AMF Inoculations on the Fungal Assemblages Inhabiting Pulse Roots under Organic Farming with AMF Inoculation.
	#82	Morgan O. McNeil Organic Soybean Production with Influences of Crop Rotation, Weed Populations and Management on Mycorrhizal Growth and Soil Health.
	#83	Carolyn Mann Soil Health: Comparing Farmers' Perceptions and Methods of Assessments.
	#84	Julia Reekie Effect of Ground Cover Management on Yield and Leaf Nutrient Concentrations in an Organic Honeycrisp Apple Orchard in Nova Scotia Canada.
Session Livestock 1 poster	#85	Renée Bergeron Lack of Social Influence on the Development of Grazing Behaviour in Dairy Heifers.
Session Value Adding 6 posters	#86	Maëlle Derrien <i>Optimisation de l'extraction et de la séparation de la lutéine et de la chlorophylle de l'épinard par la méthode des surfaces de réponses.</i>
	#87	Rafik Missaoui <i>Optimisation de l'extraction des polyphénols, des flavonoïdes et des saponines à partir de l'asperge (Asparagus officinalis).</i>
	#88	Minty Thomas Identification and Quantification of Plant Bioactives from <i>Brassica oleracea</i> By-Products using UPLC – MS/MS.
	#89	Minty Thomas Identification and Quantification of Plant Bioactives from <i>Allium porrum</i> By-Products using UPLC – MS/MS.
	#90	Anmol Grewal Vermitechnology: A Sustainable Approach Towards Agro-Based Waste Management.
	#91	Anmol Grewal Reutilization of Spent Mushroom Paddy Straw from <i>Volvariella volvacea</i> for Value Added Compost: Quantitative Analysis.