



Climate Resilient

FOOD Systems

in the Greater Golden Horseshoe Region

4th Annual
OCC Symposium

May 5
2016

Rozanski Hall,
University of Guelph



Symposium Program



ONTARIO CLIMATE CONSORTIUM

[www.climateconnections.ca/
symposium](http://www.climateconnections.ca/symposium)

Welcome!

Welcome Message from your hosts, the Ontario Climate Consortium and University of Guelph

The Ontario Climate Consortium (OCC) and University of Guelph are pleased to welcome you to the 4th Annual Ontario Climate Symposium. The Symposium strives to create an inclusive forum for sharing diverse perspectives on the path forward for Ontario in the uncertain age of climate change. This year's event, focused on the theme of *Climate Resilient Food Systems in the Greater Golden Horseshoe Region*, is no different. We are excited to have brought together 200 participants, representing civil society, government, business, academia and the general citizenry, to engage in discussion and advance knowledge and practice.

This year's Symposium has taken on special importance given the growing momentum behind climate action at all levels from the global to the local, and in particular Ontario's recently released Climate Change Strategy and broader policy discussions surrounding land use planning in the Greater Golden Horseshoe.

A number of pertinent questions have helped shape the program. While the Greater Golden Horseshoe region is home to some of Canada's most productive farmland, communities in the region are highly dependent on imported food, often from regions experiencing climate impacts that are projected to worsen. Is there an opportunity to build food security and resilience by looking towards more regional food systems? And while agriculture is a source of GHG emissions in the province, it also provides significant opportunities for emissions reductions through bio-energy and soil carbon sequestration. How can we design policy frameworks that leverage these opportunities in support of provincial GHG reduction objectives?

Ontario Climate Symposium 2016 will bring together expertise from across Canada that will help us address these, and other pressing questions.

We are looking to you to get involved. Please share your insights and expertise through our afternoon breakout workshops, and through social media with #2016OCC.

Thank you for joining us!

Sincerely,



Malcolm M. Campbell, PhD

Vice-President (Research)
University of Guelph



**THANK YOU TO THE 2016 SYMPOSIUM
PLANNING COMMITTEE:**

Ben Bradshaw, University of Guelph

Kirby Calvert, University of Guelph

Sheri Harper, University of Guelph

Craig Johnson, University of Guelph

Peter Love, York University

Eric Meliton, Toronto and Region Conservation Authority

John Smithers, University of Guelph

Dave Bray, Ontario Ministry of Agriculture, Food, and Rural Affairs

Mark Pajot, Region of Peel

Christine Tu, Toronto and Region Conservation Authority

Joanne Rzadki, Conservation Ontario

Ruth Waldick, Agriculture and Agri-Food Canada

Sponsors:



OCC Members:



SYMPOSIUM VENUES & PARKING MAP

(Section of the University of Guelph Campus)



■ Rozanski Hall

- Registration & Continental Breakfast
- Welcome Address
- Morning Keynote
- Plenary Panel
- Afternoon Panels & Workstreams 1, 2
- Closing Remarks
- Networking Reception & Student Poster Competition

■ Creelman Hall

- Lunch & Keynote Remarks

■ University Centre (UC442)

- Afternoon Panel & Workstream 3

■ Parking (P15 & P14)

Program at-a-Glance

(Morning)

TIME	DESCRIPTION (& Location)
8:30 - 9:00 am	Registration & Continental Breakfast <i>(Rozanski Concourse)</i>
9:00 - 9:15 am	Welcome Address <i>(Rozanski 103)</i> <ul style="list-style-type: none"> • Malcolm Campbell – Vice President (Research) <i>(University of Guelph)</i>
9:15 - 10:00 am	Morning Keynote <i>(Rozanski 103)</i> <ul style="list-style-type: none"> • Evan Fraser – Canada Research Chair in Global Food Security <i>(University of Guelph)</i>
10:00 - 10:30 am	Morning Break <i>(Rozanski Concourse)</i>
10:30 - 12:00 pm	Plenary Panel <i>(Rozanski 103)</i> The Role of Greater Golden Horseshoe (GGH) Region Land-Use Planning and Agriculture in the Ontario Climate Change Strategy and Action Plan <ul style="list-style-type: none"> • Wayne Caldwell – Dean Ontario Agricultural College, Professor of Rural Planning and Development <i>(University of Guelph)</i> • Dianne Saxe – Environmental Commissioner of Ontario • Keith Currie – Vice President Ontario Federation of Agriculture & Member of Co-ordinated Land Use Planning Advisory Panel <p>Moderator: David McInnes – President & CEO <i>(Canadian Agri-Food Policy Institute)</i></p>

Program at-a-Glance

(Afternoon Session)



TIME	DESCRIPTION (& Location)
12:00 - 1:30 pm	Lunch + Keynote Remarks (<i>Creelman Hall</i>) <ul style="list-style-type: none">• Hank Venema – Chief Scientist, International Institute of Sustainable Development (IISD) and Director, Centre for Climate• Arthur Potts – MPP Beaches-East York & Parliamentary Assistant to the Minister of Agriculture, Food and Rural Affairs
1:30 - 4:45 pm With coffee and cookie break.	WORKSTREAM 1 (<i>Rozanski 103</i>) Sustainable Energy in the Agri-Food Supply Chain (see page 7 for detailed description)
	WORKSTREAM 2 (<i>Rozanski 105</i>) Exploring Pathways towards Low Carbon and Climate Resilient Agriculture in the GGH Region (see page 8 for detailed description)
	WORKSTREAM 3 (<i>University Centre 442</i>) Planning for Climate Resilient Local and Regional Food Supply Chains in the GGH Region (see page 9 for detailed description)
4:45 - 5:00 pm	Closing Remarks (<i>Rozanski 103</i>) <ul style="list-style-type: none">• Noel Sturgeon – Dean Faculty of Environmental Studies (<i>York University</i>)
5:00 - 7:00 pm	Networking Reception (<i>Rozanski Concourse</i>)

Sustainable energy & agri-food systems

The transition towards a low carbon society in the Greater Golden Horseshoe (GGH) region will necessarily involve an expansion of renewable energy and the bio-economy more broadly throughout the agri-food supply chain. Agricultural biomass to produce biochemicals, biomaterials and bioenergy, as well as on-farm renewable energy systems (wind and solar) will contribute to the diversification of the GGH region’s rural economy and the reinforcement of the industrial base creating rural growth and employment. There are additional opportunities in the midstream food processing sectors for renewable energy production, creating a significant opportunity for the GGH region’s agri-food supply chain to help Ontario to meet its new climate policy targets for 2030 and beyond. Significant opportunities notwithstanding, there are challenges to realizing this potential. Notable among these are ongoing land use changes in the Greater Golden Horseshoe region (i.e. expansion of the urban footprint and concomitant decline in agricultural land use), as well as social friction in rural communities related to the development of renewable energy systems.

The overall objective of the workshop is to identify and address economic, regulatory, and social barriers for the integration of sustainable energy technologies into land-use practices, business models and value chains of the GGH region’s agri-food sector, and to help foster collaboration between researchers, public policy makers, and industry actors.

TIME	AGENDA (Location: Rozanski 103)
1:30 - 3:15 pm	<p>Panel: Sustainable Energy in the Agri-Food Supply Chain – Challenges, Opportunities and Success Factors</p> <p>Speakers/Topics:</p> <ul style="list-style-type: none"> • Alfons Weersink – <i>University of Guelph</i> – Energy crop potential under different climate and economic scenarios, and available market options (energy and beyond) • Dimple Roy – <i>International Institute of Sustainable Development</i> – Lake Winnipeg Bioeconomy – Watersheds of the Future • Stephanie Thorson – <i>Canadian Biogas Association</i> – Integrating biogas into Ontario’s Climate Change Action Plan • Tim Faveri – <i>Maple Leaf Foods</i> – Bioenergy in the food processing industry <p>Moderator: Kirby Calvert – <i>University of Guelph</i></p>
3:15 - 3:30 pm	Afternoon Break
3:30 - 5:00 pm	<p>Breakout discussions: Addressing drivers, and barriers, as well as solutions and tools to advance sustainable energy in the regional agri-food sector.</p>

Low carbon & climate resilient agriculture

The agriculture sector in the Greater Golden Horseshoe (GGH) region is crucial to maintaining and enhancing rural livelihoods while also contributing to Ontario’s greenhouse gas reduction targets. Climate change is expected to have a particularly significant impact on agricultural systems. This points to the need to adapt agricultural systems to climate change while also positioning the sector to deliver greenhouse gas reductions over the coming decades. Agriculture is unique in that most direct emissions are non-energy related and controlled by biological processes in soil, crop and livestock systems. This biological nature of these emissions creates different challenges for reductions as compared to other sectors where energy-related emissions dominate.

This workshop will address the challenges of adaptation and mitigation while maintaining and enhancing agricultural productivity. Through the speaker panel, and breakout sessions the workshop will seek to identify and address economic, regulatory, and social barriers to scaling-up synergistic actions in the GGH region’s agriculture sector, and to help foster collaboration between researchers, public policy makers, and industry actors.

TIME	AGENDA (Location: Rozanski 105)
1:30 - 3:15 pm	<p>Panel: What would a low carbon and climate resilient agriculture sector look like in the GGH region?</p> <p>Speakers/Topics (20 minutes max):</p> <ul style="list-style-type: none"> • Claudia Wagner Riddle – <i>University of Guelph</i> – Overview of Ontario agriculture sector GHG emissions, and insights into promising mitigation approaches • Alan Fredeen – <i>Dalhousie University</i> – Pasture-based Dairy Systems to reduce GHG emissions • Peter Tyedmers – <i>Dalhousie University</i> – Lifecycle GHG Assessment • Blake Vince – Conservation Farming through Soil Stewardship <p>Moderator: Ralph Martin – <i>University of Guelph</i> – Setting the Scene – describe challenges faced by agriculture in the context of climate change</p>
3:15 - 3:30 pm	Afternoon Break
3:30 - 5:00 pm	<p>Breakout discussions: Addressing drivers, and barriers, as well as solutions and tools to advance transformation towards low carbon climate resilience across soils, crops, and livestock management systems in the GGH region.</p>

Planning for climate resilient & sustainable local & regional food supply chains

This session will explore the value of short food supply chains in the Greater Golden Horse Region for supporting progress on interrelated climate change mitigation, adaptation, economic development and food security objectives. Exploring issues including local and regional food production and processing capacity, food distribution and storage systems, institutional food procurement, and food access among the region’s vulnerable populations, this session will look at best practices both here in the GGH region and globally, and describe core characteristics of a resilient and sustainable regional food system.

TIME	AGENDA (Location: UC442)
1:30 - 3:15 pm	<p>Setting the context – The Value of Short Food Supply Chains in the Context of Climate Change. Rod MacRae – York University</p>
1:30 - 3:15 pm	<p>Panel: What current best practices should we be looking to scale-up, and what additional system characteristics should we be cultivating to support the GGH region’s transition to short food supply chains in the context of climate change?</p> <p>Speakers/Topics:</p> <ul style="list-style-type: none"> • Barbara Emanuel – Toronto Public Health – Municipal food policy levers to address climate change and food access • Sally Miller – Local Organic Food Co-op Network – GTA City-Region Food Systems project • Alison Blay-Palmer – Wilfred Laurier University – Regional Food Hubs • Franco Naccarato – Greenbelt Fund – Food processing, aggregation and incubators <p>Moderator: Rod MacRae – York University</p>
3:15 - 3:30 pm	<p>Afternoon Break</p>
3:30 - 5:00 pm	<p>Breakout discussions: Developing a policy agenda to support climate resilient and sustainable local and regional food supply chains</p>



ABOUT THE ONTARIO CLIMATE CONSORTIUM

The OCC mobilizes knowledge from Ontario's academic institutions to provide governments, businesses and communities to build capacity for transformative climate action.

How Do We Do It?

SCIENCE & INFORMATION

- Local and regional climate information
- Incorporation of climate change into current planning, design, operations and management practices

RESILIENCY PLANNING & IMPLEMENTATION

- Vulnerability and risk assessment
- Community energy planning
- Public communications and outreach

POLICY & PRACTICE EVALUATION

- Key performance indicators
- Target-setting
- Gap Analysis

OCC GOVERNING COUNCIL MEMBERS

Noel Sturgeon, Dean Faculty of Environmental Studies (*York University*)

Altat Arain, Director, McMaster Centre for Climate Change (*McMaster University*)

Dr. John Capone, Vice President, Research (*Western University*)

Benjamin Bradshaw, Associate Professor (*University of Guelph*)

Jo-Anne Rzadki, Business Development & Partnerships (*Conservation Ontario*)

Chandra Sharma, Director, Watershed Strategies (*Toronto and Region Conservation Authority*)

Mark Pajot, Principal Planner, Climate Change (*Region of Peel*)

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For more information visit climateconnections.ca/symposium