

4th Annual Growing

the Margins:

Green Energy and Economy
for the Farm and Food Sectors
Conference & Exhibition

March 10-11, 2010
London Convention Centre
London, Ontario, Canada

Wednesday, March 10 2010

Growing the Margins/Canadian Farm and Food Biogas Conferences Joint Plenary #1

“Green Energy Today – Progress Made and Initiatives Underway”

Chair: George Zegarac, Deputy Minister, Ontario Ministry of Agriculture, Food and Rural Affairs

1. Sue Lo, Assistant Deputy Minister, Renewables and Energy Efficiency, Ontario Ministry of Energy and Infrastructure
2. Christopher Voell, AgSTAR Program, EPA Climate Change Division, US
3. Daniel Ciolkosz, Penn State Agricultural and Biological Engineering Department, US
4. Jens Bo Holm-Nielsen, Esbjerg Institute of Technology, Aalborg University, Denmark

8:30am –
10:00am

10:00am –
10:30am

Refreshments – Exhibition and Posters Open

GTM A

GTM B

GTM C

G1A
Green Energy Act – What’s it All About?
Chair: Lori Gallagher, Ag Energy Co-operative

1. The Green Energy Act and the Opportunities for Ontario's Rural Energy Economy, Kristopher Stevens, Ontario Sustainable Energy Association, Toronto, ON
2. How to Fit in the FIT, Derek Satnik, Mindscape Innovations Group Inc., Kitchener, ON
3. Ontario's Green Energy Act: Challenges and Opportunities, Aaron Atcheson, Miller Thomson LLP, London, ON

G1B
Energy Efficiency and Production for Food Processors
Chair: Art Lawson, Ontario Ministry of Agriculture, Food and Rural Affairs

1. Metering Electricity, Natural Gas and Water Use Best Management Practices for Farms and Food Plants, Phil Dick, Ontario Ministry of Agriculture, Food and Rural Affairs, Guelph, ON
2. Solar Heating Systems, Klaus Dohring, Green Sun Rising Inc, Windsor, ON
3. Cost Effective H2S Removal by Thiopaq, Erik van Zessen, Paques BV, Balk, Netherlands

G1C
Biomass Feedstocks Supply Chain
Chair: Sam Bradshaw, Ontario Pork

1. Biomass Conversion of Coal-Fired Units at Ontario Power Generation, Robert Lyng, Ontario Power Generation, Toronto, ON
2. Replacement of Coal in Cement Manufacturing with Locally Produced Biomass, Martin Warmelink, Performance Plants Inc., Kingston, ON
3. Analysis of the Supply-Chain Logistical Costs Associated with Second Generation Biofuel Feedstocks, Patrick Girouard, Agronovita Inc, Ottawa, ON

10:30am –
12:00 pm

Concurrent Session #1

Lunch

60 second poster flashes

12:00pm –
1:30pm

GTM A

GTM B

GTM C

G2A
Climate Change Policies and Programs
Chair: Dave Walker, Milk2020

1. Mitigation of Agricultural Greenhouse Gas Emissions, Claudia Wagner-Riddle, University of Guelph, Guelph, ON
2. Greenhouse Gas Reductions from Agriculture Activities – Realizing Carbon Market Opportunities, Duncan Kenyon, Blue Source Canada, Calgary, AB
3. Renewable and Climate Change Policies in Denmark and Europe, Jens Bo Holm-Nielsen, Esbjerg Institute of Technology, Aalborg University, Denmark

G2B
New Alternative Energy Projects - Strategy and Financing
Chair: Luke Bond, Ontario Power Authority

1. Alternative Energy Projects on the Farm – Quick Facts and Developing a Strategy, Glen Schrader, MK Ince and Associates, Dundas, ON
2. 1/2 Dozen Things Bio-Entrepreneurs Should Know About Funding their Start-up, John Pickard, Bioenterprise Corporation, Guelph, ON

G2C
Biomass Technology and Crops
Chair: Lori Gallagher, Ag Energy Co-operative

1. Biomass Boiler House Best Practices, Irene Coyle, Natural Resources Canada, Ottawa, ON
2. Austrian Biomass Heating Systems Produced and Distributed in North America, Sepp Aigner, Aigner Waerme, Erpfendorf, Austria
3. Willow Biomass, Challenges and Opportunities, Francis Allard, Agro Énergie, St-Roch de l'Achigan, QC

1:30pm –
3:00pm

Concurrent Session #2

3:00pm – 3:30pm	Refreshments – Exhibition and Posters		
	GTM A	GTM B	GTM C
3:30pm – 5:00pm Concurrent Session #3	<p>G3A Community/Cooperative/Collaboration/Partnership Energy Projects Chair: Elin Gwyn, Ontario Ministry of Agriculture, Food and Rural Affairs</p> <ol style="list-style-type: none"> The Role of the Community Power Fund, Meghan MacLennan, Community Power Fund, Toronto, ON Partners in Project Green: Developing Green Buying Groups, Chris Rickett, Toronto and Region Conservation, Toronto, ON Partnering for the Future: The Mission 2050, Next Generation Concept for Livestock, Environment and Energy Research, Richard Moccia, University of Guelph, Guelph, ON 	<p>G3B Energy Efficiency Projects - Farm Chair: Robert Tmej, Ministry of Energy and Infrastructure</p> <ol style="list-style-type: none"> How Farmers Can Tap into Energy Saving Dollars in Ontario, Steve Clarke, Ontario Ministry of Agriculture, Food and Rural Affairs, Kemptonville, ON 20 Years of Creating Agricultural Energy Efficiency Programs: Lessons from the Field, Craig Metz, EnSave, Inc., Richmond, VT Energy Audits and Renewable Energy Technology: Opportunities and Benefits for the Agricultural Industry in Nova Scotia, Kenny Corscadden, Nova Scotia Agricultural College, Truro, NS 	<p>G3C Applied Research: Biomass Energy Crops I Chair: Ian McDonald, Ontario Ministry of Agriculture, Food and Rural Affairs</p> <ol style="list-style-type: none"> Short Rotation Willow and Poplar Bioenergy Systems for Southern Ontario, Andy Gordon, University of Guelph, Guelph, ON Biomass Opportunities from Perennial Grass and Agricultural Residue Systems in Southern Ontario, Bill Deen, University of Guelph, Guelph, ON Establishment Research on Native Perennial Grass Species Investigating Seeding Rate, Fertilization and Seed Treatment Opportunities, Steve Bowley, University of Guelph, Guelph, ON
5:00pm – 6:30pm	Reception (cash bar)		
<p><u>Poster Presentations</u> Wednesday, March 10, 2010 10:00 am – 6:30 pm</p> <ol style="list-style-type: none"> Biogas Plants to Power Plug-in Electric/Hybrid Vehicles, Eric Camirand, Electrigan Technologies Inc., Trois-Rivieres, QC Farm Scale Feed and Bio-Fuel Production – Revolutionary Approach Allows Farmer to Regain Control of Input Costs, Jasmin Hofer, Energrow Inc., Newton, ON Energy Conversion Issues For Woody Crops, Fernando Preto, Natural Resources Canada, Ottawa, ON Use of Microwave Pre-Treatments on Agro-Industry Wastes for Improvement of Anaerobic Digestion and Increase of Biogas Production, Thierry Ribeiro, Institut Polytechnique Lasalle Beauvais, Beauvais, France Integrating Biomass Energy Production in Sustainable Mixed Farming, Subbu Kumarappan, Michigan State University, Lansing, MI Myco-Bacteriosphere Biotechnology as a New Tool to Remediate Contamination in the Brownfields Using Biomass Production, M. Ali Khalvati, German Research Centre for Environmental Health, Neuherberg, Germany Nutrient Harvesting From Digester Dewatering Liquors: The Sows Ear Really Can Be A Silk Purse, Kenneth Haggerty, 3XR Inc., Woodbridge, ON Analysis of Small-Scale Biogas Systems Using Activated Carbon Derived from Anaerobic Digestion By-Products to Purify the Biogas, Andrew White, Department of Chemical Engineering, University of Toronto, Toronto, ON Modifying the Owen Biochemical Methane Potential Test to Accurately Estimate Chicken Manure Methane Production, Victoria Hilborn, University of Guelph, Guelph, ON Bio-Energy Potential from the Bio-Fixation of CO₂ with Thermosynechococcus sp. CL-1 in a Continuous Cultivation, Hsin Chu, National Cheng Kung University, Tainan, Taiwan 			
6:30pm – 8:30pm	<p>Banquet (optional ticket)</p> <p>Over coffee debate: "By 2020 – should farms generate 20% of income from green energy?" Panel and Audience</p>		

Thursday, March 11 2010

**Growing the Margins/Canadian Farm and Food Biogas Conferences
Joint Plenary #2**

8:30am –
10:00am

“New Frontiers – and What Needs to be Done to Realize Opportunities”
Chair: Dianne Cunningham, Director, Lawrence National Centre for Policy and Management, Richard Ivey
School of Business, University of Western Ontario

1. Bob Slater, Member, National Round Table on the Environment and Economy
2. Gord Surgeoner, Principal, Agri-Technology Commercialization Centre
3. Don McCabe, Vice-President, Ontario Federation of Agriculture

10:00am –
10:30am

Refreshments – Exhibition and Posters

GTM A

GTM B

GTM C

10:30 am –
12:00 pm

**Concurrent
Session #4**

G4A
Energy Policies and Programs
Chair, Mathew Dickson, BCARDCorp

1. Making Green Energy Happen - Regulatory Updates on Projects that Don't Fit the FIT, Phil Dick, Ontario Ministry of Agriculture, Food and Rural Affairs, Guelph, ON
2. OSEA's Community Power Training Collaborative, Jim Fonger, Ontario Sustainable Energy Association, Toronto, ON
3. Successful Bioenergy Policies and Programs, Daniel Ciolkosz, Penn State Agricultural and Biological Engineering Department, US

G4B
Biofuels
Chair: Dave Walker, Milk2020

1. Developmental Challenges for Biofuels Industry: A Focus on Testing and Standardization, Mohammad Rahbari, CENNATEK, Sarnia, ON
2. Biodiesel Operations – Canadian Successes and Challenges, Rex Newkirk, Canadian International Grains Institute, Winnipeg, MB
3. Integrated Grain Processors Cooperative – 1 Year of Full Production. Success, Challenges and Goals for the Future, Tom Cox, Integrated Grain Producers Coop, Troy, ON

G4C
Bioproducts Conversion Technologies
Chair: Jim Todd, Ontario Ministry of Agriculture, Food and Rural Affairs

1. Towards Separating Value-Added Chemicals from Biooil Derived by Fast Pyrolysis of Agricultural Biomass, Zakir Hossain Kazi, Agriculture and Agri-Food Canada, Ottawa, ON
2. Waste-to-Bioenergy Technologies Building Clean Industry Opportunities: The Case of Enerkem, Scott Christiansen, Enerkem, Montreal, QC

12:00pm –
1:00pm

Lunch

GTM A

GTM B

1:00pm –
2:30pm

**Concurrent
Session #5**

G5A
Building the Bioproducts Value Chain
Chair: Phil Dick, Ontario Ministry of Agriculture, Food and Rural Affairs

1. SOBIN – Harvesting New Opportunities for Industry, Matt McLean, SOBIN, Ridgeway, ON
2. Creating New Wealth in the Soybean Sector in Canada, Jeff Schmalz, Soy 20/20, Guelph, ON
3. Reactive Separations for Biorenewable Fuels and Chemicals Production, Dennis Miller, Michigan State University, East Lansing, MI

G5B
Solar Energy PV for Farm and Rural
Chair: Valerie Kitchell, Ontario Sustainable Energy Association

1. Ground Mount Solar PV Projects in Ontario -- Lessons Learned, Jon Kieran, EDF EN Canada Inc., Toronto, ON
2. Useful Information for People Thinking About Solar, Ted Cowan, Ontario Federation of Agriculture, Guelph, ON
3. Roof Mounted Solar Panels – Structural Considerations, John Johnson, Ontario Ministry of Agriculture, Food and Rural Affairs, London, ON

G5C
Applied Research: Biomass Energy Crops II
Chair: Mahendra Thimmanagari, Ontario Ministry of Agriculture, Food and Rural Affairs

1. An Alternative Establishment System for Adapted Perennial Grasses, Jim Todd, Ontario Ministry of Agriculture, Food and Rural Affairs, Simcoe, ON
2. A Switchgrass Production System – An On-Farm Case Study, Kurt Vanclief, Willowlee Sod Farm Ltd., Ameliasburg, ON
3. Growing Native Grass Praire in Ontario for Biomass Feedstocks and Beyond, Kristen Thompson, ALUS, Simcoe, ON

2:30pm -
3:00pm

Refreshments – Exhibition and Posters

	GTM A	GTM B
<p>3:00pm – 4:30pm</p> <p>Concurrent Session #6</p>	<p>G6A <i>Emerging Opportunities</i> Chair: Ted Cowan, Ontario Federation of Agriculture, Guelph, ON</p> <ol style="list-style-type: none"> 1. Starch into Biolatex™- Emulsions for Replacement of Petroleum Based Products, John van Leeuwen, EcoSynthetix Inc., Milton, ON 2. Improved Utilization of Lignin in Advanced Nano-enabled Biomaterials: A New Exemplar in Green Manufacturing, Amar Mohanti, University of Guelph, Guelph, ON 3. Biodiesel Production From Swine Manure: Preliminary Study, Mausam Verma, Institut de Recherche et de Développement en Agroenvironnement, Quebec, QC 	<p>G6B <i>Opportunities in Solar Energy</i> Chair: Don Hilborn, Ontario Ministry of Agriculture, Food and Rural Affairs</p> <ol style="list-style-type: none"> 1. Harvesting the Sun, Rolf Maurer, Arntjen Solar NA Inc., London, ON 2. What you Need to Know about Developing Solar Projects on Farms, Jonathan Cheszes, Ontario Power Authority, Toronto, ON