



SHARING AGRICULTURAL SCIENCE, TECHNOLOGY & DATA TO IMPROVE GREAT LAKES WATER QUALITY

A BI-NATIONAL WORKSHOP

June 13 - 14, 2013 - Ivey Spencer Leadership Centre, London, Ontario

Agenda

Workshop Overview

This workshop facilitates the sharing of information about challenges and solutions to assessing agricultural best management practices, amongst Canadian and U.S. participants. Several plot, field and watershed scale studies will be reviewed for the assessment approach, metrics, equipment, data interpretation and models used. By understanding the limitations as well as practical solutions to them, participants can collaborate, interact and exchange ideas for improved assessment methods. This workshop will also include a significant field component connecting applied research, problem-solving, tools and technology.

Wednesday, June 12

6:00pm – 9:00pm	Welcome meet & greet at Ivey Spencer Leadership Centre lounge. Conference registration packages available.
------------------------	---

Thursday, June 13

7:30am – 8:30am	Workshop registration packages and workshop check in at the Ivey Spencer Leadership Centre. As the afternoon will consist of a significant field tour, please dress appropriately for field work.
8:30am – 10:20am	Welcome & Workshop Overview Gabrielle Ferguson, Environmental Program Specialist, Ontario Ministry of Agriculture and Food (OMAF) and Ministry of Rural Affairs (MRA), Ontario Session I: Watershed Modelling: Scaling up from Field to Watershed Moderator: Gabrielle Ferguson, Environmental Program Specialist, OMAF and MRA This session speaks about the importance of modeling, and discusses the models available: differences, advantages and disadvantages. Case studies are presented to show the use of best management practices (BMP) modules, programming additions or changes and to explain the data needs are presented. Challenges in calibrating and validating the model, reducing uncertainty, modelling multiple BMPs and their cumulative effect, including climate change factors are also discussed.



SHARING AGRICULTURAL SCIENCE, TECHNOLOGY & DATA TO IMPROVE GREAT LAKES WATER QUALITY

A BI-NATIONAL WORKSHOP

June 13 - 14, 2013 - Ivey Spencer Leadership Centre, London, Ontario

	<p>Using CANSWAT to Evaluate Water Quantity and Quality Effects of Field BMPs on Gully Creek Streamflow</p> <p>Kevin McKague, Water Quality Engineer, OMAF and MRA, Ontario Wanhong Yang, Professor, Department of Geography, University of Guelph, Ontario</p> <hr/> <p>A modeling approach to prioritizing BMPs considering spatial and temporal aspects</p> <p>Ramesh Rudra, Professor, Water Resources Engineering, University of Guelph, Ontario Don King, Senior Researcher, Soil Research Group, Ontario</p> <hr/> <p>Integrating modeling and spatial technologies to identify critical areas for watershed management</p> <p>Claire Baffaut, Research Hydrologist, United States Department of Agriculture-Agricultural Research Service (USDA-ARS), Missouri</p> <hr/> <p>Watershed modeling: improving calibration and understanding model parameterization and uncertainty</p> <p>Remegio Confesor Jr., Research Scientist, National Center for Water Quality Research (NCWQR), Heidelberg University, Ohio</p> <hr/> <p>Questions & Answers</p>
<p>10:20am – 10:30am</p>	<p>Break</p>
<p>10:30am – 12:20pm</p>	<p>Session 2: BMP Implementation and Evaluation: Science, Technology and Socio-Economic Factors – Lessons Learned</p> <p>Moderator: Darryl Finnigan, Program Analyst, Environmental Programs Environmental Management Branch, OMAF and MRA, Ontario</p> <p>In this session, the science behind evaluating best management practices (BMP) is discussed in detail. Case studies are presented to describe and compare challenges in the study design, approach, monitoring, data collection and interpretation. Economic and social impacts are also looked at. The effectiveness of BMP programs is reviewed.</p> <hr/> <p>Evaluation of BMPs from the field scale to the watershed scale</p> <p>David Lobb, Senior Research Chair, Watershed Systems Research Program, University of Manitoba, Manitoba</p>



SHARING AGRICULTURAL SCIENCE, TECHNOLOGY & DATA TO IMPROVE GREAT LAKES WATER QUALITY

A BI-NATIONAL WORKSHOP

June 13 - 14, 2013 - Ivey Spencer Leadership Centre, London, Ontario

	<p>Assessing Phosphorus Export in Tile Drainage from Farms with different Tillage Practices across Ontario: Challenges Merrin Macrae, Associate Professor, University of Waterloo, Ontario</p> <p>Quantifying surface and subsurface phosphorus loss at watershed and field scales: approach, experience, and findings Kevin King, Research Agriculture Engineer, United States Department of Agriculture-Agricultural Research Service (USDA-ARS), Ohio</p> <p>Agri-Water Quality Monitoring, Data Collection, and Interpretation At the Plot and Field Scales in Past 20 Years: Observations, Lessons, and Challenges Tiequan Zhang and Chin Tan, Research Scientists, Greenhouse & Processing Crops Research Center, Agriculture and Agri-Food Canada, Harrow, Ontario</p> <p>Nutrient Management for water quality: are there simple answers in a complex world? Ivan O'Halloran, Professor, University of Guelph (Ridgetown Campus), Ontario</p> <p>Questions & Answers</p>
12:20pm – 12:45pm	Break & Pick Up Boxed Lunches, Board Buses
12:45pm – 5:30pm	<p>Field Tour – London Area Demonstration Watershed Based Best Management Practices Evaluation (WBBE) A tour of various locations around the London area (Ontario) to demonstrate BMPs in action, field equipment, and a variety of lessons learned. A field tour booklet will be provided.</p>
5:30pm – 6:30pm	Free time
6:30pm – 8:00pm	<p>Dinner. Masters of Ceremony: Jacqui Laporte (Environmental Specialist, OMAF and MRA) and Brian McDougall (General Manager, St. Clair Region Conservation Authority)</p> <p>Keynote address: Jim Ginn, Mayor of the Township of Central Huron in Huron County, Ontario. A farmer for the past 25 years, and a former dairy farm owner, he is a seven time top ten producer in Huron for Ontario Dairy Herd Improvement. Jim is currently the Environmental Farm Coalition Representative on the Huron Clean Water Steering Committee. Jim is winner of the Glen Hodgin Memorial Award (MNR Clinton) and winner of the Countryside Canada National Award (2004).</p>
8:00pm – 10:00pm	<p>Reception & Game in lounge Bonfire on patio</p>



SHARING AGRICULTURAL SCIENCE, TECHNOLOGY & DATA TO IMPROVE GREAT LAKES WATER QUALITY

A BI-NATIONAL WORKSHOP

June 13 - 14, 2013 - Ivey Spencer Leadership Centre, London, Ontario

Friday, June 14

7:00am – 8:30am	Breakfast
8:30am – 8:40am	<p>Recap of Day 1 Activities</p> <p>Gabrielle Ferguson, Environmental Program Specialist, OMAF and MRA, Ontario</p>
8:40am – 11:00am	<p>Session 2 (continued): BMP Implementation and Evaluation: Science, Technology and Socio-Economic Factors – Lesson Learned</p> <p>Moderator: Jackie McCall, Program Analyst, OMAF and MRA, Guelph, Ontario</p> <p>A continuation of the previous day's Session 2 presentations, where the science behind evaluating best management practices (BMP) is discussed in detail. Case studies are presented to describe and compare challenges in the study design, approach, monitoring, data collection and interpretation. Economic and social impacts are also looked at. The effectiveness of BMP programs is reviewed.</p>
	<p>Best Management Practices Verification: Results from a Huron County watershed and a Literature Review</p> <p>Mari Veliz, Healthy Watersheds Supervisor, Ausable Bayfield Conservation Authority, Ontario Chitra Gowda, Water Quality Specialist, Essex Region Conservation Authority, Ontario</p>
	<p>The Wisconsin Discovery Farms Program</p> <p>Eric Cooley, Research Coordinator, University of Wisconsin Discovery Farms Program, Wisconsin</p>
	<p>BMP Adoption: Owners & Renters</p> <p>Karthik Nadella, Master of Science candidate, Department of Food, Agriculture and Resource Economics, University of Guelph, Ontario Brady Deaton, Associate Professor, Department of Food, Agriculture and Resource Economics, University of Guelph, Ontario</p>
	<p>Do we have enough data to determine if BMPs are effective? A review of data collected to determine if it is enough to assess the effectiveness of BMPs</p> <p>Elin Betanzo, Senior Policy Analyst, Northeast-Midwest Institute, Washington</p>
	<p>Lessons Learned from U. S. Agricultural Watershed Conservation Programs</p> <p>Don Meals, Principal, Ice.Nine Environmental Consulting Burlington, Vermont</p>
	Questions & Answers
11:00am – 12:00pm	<p>Session 1 and 2 Breakout Group Discussions</p> <p>Introduction: Gabrielle Ferguson, Environmental Program Specialist, OMAF and MRA, Ontario</p>



SHARING AGRICULTURAL SCIENCE, TECHNOLOGY & DATA TO IMPROVE GREAT LAKES WATER QUALITY

A BI-NATIONAL WORKSHOP

June 13 - 14, 2013 - Ivey Spencer Leadership Centre, London, Ontario

12:00pm – 1:00pm	Lunch
1:00pm – 2:40pm	<p>Session 3: Moving forward: Focusing and Communicating BMP Effectiveness This session looks at how we can move forward, focussing our BMP efforts, knowing what we do now. As well, the need to evolve tools to communicate BMP effectiveness is discussed. Moderator: Chitra Gowda, Water Quality Specialist, Essex Region Conservation Authority, Ontario</p> <p>Protecting Lake Erie By Managing Phosphorus: Lake Erie Binational Nutrient Management Strategy Sandra George, Great Lakes Nutrient Initiative Lead, Environment Canada, Ontario Luca Cargnelli, Great Lakes Program Officer, Environment Canada, Ontario</p> <p>Mobilizing efforts - increasing efficiency by setting realistic boundaries Bruce MacDonald, Consultant, Soil Research Group, Ontario</p> <p>Encouraging BMP implementation on farms and telling the story about what has been done Margaret May, Regional Program Lead, Ontario Soil and Crop Improvement Association (OSCIA), Ontario</p> <p>Watershed Report Cards - An Introduction Don Pearson, General Manager/Secretary-Treasurer, Lower Thames Valley Conservation Authority, Ontario</p> <p>Evolving field and watershed tools: explaining BMP effectiveness and water quality results Mari Veliz, Healthy Watersheds Supervisor, Ausable Bayfield Conservation Authority, Ontario</p> <p>Annual Phosphorus Loss Estimator (APLE) - An overview of the USDA tool Kevin King, Research Agriculture Engineer, United States Department of Agriculture-Agricultural Research Service (USDA-ARS), Ohio</p> <p>NMAN3: A Science-Based Tool for Nutrient Management Planning in Ontario Dave Bray, Environmental Specialist, OMAF and MRA, Ontario</p> <p>Questions & Answers</p>
2:40pm – 3:00pm	<p>Group Discussion Summaries – Session Moderators Wrap Up - Gabrielle Ferguson, Environmental Program Specialist, OMAF and MRA, Ontario</p>

