

LEARN Linking Environment & Agriculture Research Network

LINKING ENVIRONMENT AND AGRICULTURE RESEARCH NETWORK ANNUAL REPORT 2011-2012

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Network Annual Report
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An Introduction from the Network Leaders

The third year of operation of the Linking Environment and Agriculture Research Network (LEARN) involved further completion of some projects, and extensions of others in a significant way. Six new projects were also initiated. However, in this third year of operation, there was a significant focus on networking and outreach with LEARN involvement in a national policy conference, a joint workshop with a related research organization, a workshop with AAFC policy analysts and researchers, number of projects initiated in the first year and participation in a variety of workshops, conferences and other networking and planning events. There was also further design and content added to the LEARN website which I believe to be a very good communication tool. Beata Montgomery, who was welcomed in 2010 as the LEARN Network Administrator, was largely replaced by Catalina Solano Rivera in mid 2011. Beata continues to assist with the year-end financial claim to AAFC while Cata essentially runs the day to day operations of the network, website, and conference development. Oh, and in her spare time she gets involved in a number of research projects providing excellent research assistance!

On the research front, seven new projects were funded in 2011-2012 making a total of 8 ongoing research projects during this fiscal year. Two commissioned papers were produced this year and now appear on the LEARN website. We continue to work with other researchers on new ones. LEARN researchers were also involved in proposals for pilot conservation auctions in Manitoba, and an additional proposal on evaluation of various methods to choose agri-environmental program elements. We will discover if these were funded midway through 2012-2013.

Communication efforts have also started to take shape. In addition to the LEARN website (<http://www.ales.ualberta.ca/re/LearnNetwork>), a series of various graphic art tools were designed to enhance presentations and report covers for LEARN sponsored publications. These are now available on the website for researchers to use. The papers presented at the first LEARN sponsored workshop in Victoria appeared in a special issue of the *Canadian Journal of Agricultural Economics* published in June 2011.

One important event was the Second Annual National Agricultural Policy Conference held in Ottawa in January. This event was organized by a consortium including the five ERCA networks, the Canadian Agricultural Economists Society and Agriculture and Agri-Food Canada. The event included a poster session which was intended to showcase network funded research. LEARN members and students had six posters presented at this event. Over 200 delegates attended this conference and there are plans in place to developing a third annual conference in January 2013.

As we write this report we just concluded the 2012 LEARN annual workshop in Edmonton. This was an event that exceeded expectations with over 70 attendees and presenters from

government, industry and academe. This event should be repeated in future years in other provinces to provide a forum for reporting and discussion of relevant issues across Canada.

Introduction

Network Objectives – LEARN activity is framed around development and analysis of economic policy in the area of agriculture and the provision of environmental goods and services (EGS). Network research will assist in the development of: (1) improved understanding of the adoption of farm level management practices for the supply of EGS, (2) development and analysis of market based instrument programs for the provision of EGS, and (3) the valuation of change in EGS both for policy implementation as well as outcome monitoring. The expectation is that these elements will be integrated in the research program, leading to improved integration of policy analysis, implementation and evaluation from a multidisciplinary perspective.

However, LEARN is more than a research organization and is dedicated to communication and networking through the hosting and co-hosting of workshops, conferences and other fora. Central to this philosophy is the expectation that network research funds will form seed funds to leverage additional funding from other organizations. We hope that many of these organizations and individuals therein will become partners in the network to increase the potential for networking and learning outcomes. Many already are as you will see in this report.

Two recent initiatives highlight partnership potential. The first is one of the funded projects in the period 2009-2010 that has linked LEARN with Environment Canada's Species at Risk concerns in what is the South of the Divide Project located in southwestern Saskatchewan.. The multiple species at risk (Multi-SAR) recovery strategy within Saskatchewan's Milk River Watershed provides a unique opportunity to study the opportunity costs of protecting multiple species' critical habitat within the dry mixed grass and mixed grass prairie of south-western Saskatchewan. The project involves developing a model that will provide insight into the opportunity or real costs incurred or potentially incurred by landowners and land managers as a result of species recovery stewardship initiatives. In the current fiscal year a cost-share funding arrangement with Environment Canada permitted development of a survey to collect non-market valuation estimates to focus on the benefits side of the species-at-risk recovery issue.

The second involves the linkage of LEARN with a recently formed Institute for Land Use Innovation at the University of Alberta. This institute holds similar goals and objectives as LEARN and through philanthropic donations is planning to test the application of market based instruments to enhance EGS provision on agricultural landscapes. LEARN partnered with this institute in this last fiscal year to undertake an evaluation of a significant extension effort to increase the adoption of BMPs in Alberta.

2. Membership and Partners

This year LEARN welcomed to the fold the following new members: Drs Richard Vyn, Alison Eagle. We now have 28 members and 21 partners.

List of Members and Partners as of April 2012

Members		Partners	
Name	Organization	Name	Organization
Vic Adamowicz	University of Alberta	Al Mussell	George Morris Centre
Peter Boxall	University of Alberta	Aurelie Mogan	Agriculture and AgriFood Canada
Kees van Kooten	University of Victoria	Bob MacGregor	Agriculture and AgriFood Canada
Paul Thomassin	McGill University	Brenda Brindle	Government of Alberta
Al Weersink	University of Guelph	Cynthia Edwards	Ducks Unlimited
Alison Eagle	University of Alberta	Darryl Finnigan	Government of Ontario
Ben Bradshaw	University of Guelph	Ela Kinowska	Environment Canada
Brady Deaton	University of Guelph	Esther Salvano	Government of Manitoba
Brent Swallow	University of Alberta	Hugues Morand	Agriculture and AgriFood Canada
Carol McAusland	University of British Columbia	Ian Campbell	Agriculture and AgriFood Canada
Chad Lawley	University of Manitoba	Jim Stalwick	Government of Saskatchewan
Chokri Dridi	University of Alberta	John Kenney	Government of Alberta
Christine Rawluk	University of Manitoba	Luis Leigh	Environment Canada
Don Flaten	University of Manitoba	Mike Kennedy	Pembina Institute
Elena Bennett	McGill University	Monica Drozd	Environment Canada
Emmanuel Yiridoe	Nova Scotia Agricultural College	Sarah Kalf	Agriculture of AgriFood Canada
Gary Kachanoski	University of Alberta	Shane Gabor	Ducks Unlimited
Gary Johnson	University of Manitoba	Tom Goddard	Government of Alberta
Henning Bjornlund	UNISA & University of Lethbridge	Tom Harrison	Saskatchewan Watershed Authority
James Vercammen	University of British Columbia	Ryan Prescott	Agriculture and AgriFood Canada
Jim Unterschultz	University of Alberta	Susan Preston	Environment Canada
John Parkins	University of Alberta	Yves Bourassa	Environment Canada
Ken Belcher	University of Saskatchewan		
Kurt Klein	University of Lethbridge		
Lota Dabio Tamini	University of Laval		
Marian Weber	University of Alberta & Alberta Innovates Technology		
Richard Vyn	University of Guelph		
Sumeet Gulati	University of British Columbia		
Steve Clark	Nova Scotia Agricultural College		
Tracy Stobbe	Trinity Western University		
Wanhong Yang	University of Guelph		
Van Lanz	University of new Brunswick		

3. LEARN Funded Research

Reports from Past Funded Projects Completed in 2011

The following projects initially funded in the first year of operations were completed in 2011 and the following reports are now available. Reports from the other funded projects should be available soon. All of these reports are currently available on the LEARN website.

1. Do Farmland Ownership Patterns Explain Variation in Farmland Rental Rates?
James Bryan, B. James Deaton, Alfons Weersink, and Karl Meilke, *University of Guelph*
2. Agri-Environmental Stewardship Adoption in Canada: A State of Knowledge Review and Annotated Bibliography.
Elizabeth Holmes, Ben Bradshaw, Wanhong Yang and John Smithers, *University of Guelph*
3. A Performance-based Approach to Agri-environmental Policy in Canada: Development and Comparative Assessment.
Julia Baird, Kenneth Belcher and Michael S. Quinn, *University of Saskatchewan and University of Calgary*.
4. Climate Change Impacts on Waterfowl Habitat in Western Canada.
G. Cornelis van Kooten, Patrick Withey and Linda Wong, *University of Victoria*

We continue to await reports from the following projects:

- Border Tax Adjustments on Food Imports. (Gulati)
- Ecological Goods and Services in BC Agriculture: Studying Nutrient Management in the Lower Fraser Valley (Gulati)
- Review of the Literature on Control of Nutrients in Several Watersheds (Johnson)
- Water Cultures and Irrigation Farming in Alberta (Parkins)

Commissioned Papers and Thought Pieces Now Available

1. Impact Evaluation of Canadian Agricultural Landscapes: Scoping the Science. Robin Naidoo, W.L. Adamowicz and P.C. Boxall, *University of British Columbia and University of Alberta*
2. The Unintended Impacts of Farm Support and Stabilization Programs on the External Impacts of Agricultural Production (two reports). James Vercaemmen, *University of British Columbia*

Report 1: Agri-Environmental Regulations, Policies and Programs

Report 2: A Life Cycle Model of Farm Investment in Environmental Capital

New Projects Funded in 2011-2012

Six new projects were funded in this fiscal year.

1. Implicit Prices of Habitat Conservation Easements.
Chad Lawley, *University of Manitoba*
2. An assessment of PEI's Alternative Land Use Services (ALUS) program, 2008-11.
Van Lanz, *University of New Brunswick*
3. Weather Indexes as a Guide to Facilitate Planting of Winter Wheat and Conservation of Migratory Waterfowl Habitat.
Kees van Kooten, Scott Jeffrey, and Jim Unterschultz, *University of Victoria and University of Alberta*
4. A study of the Attitudes and Awareness to Carbon Offset Protocols in Alberta's Agricultural Community.
5. Brent Swallow and Onnolee Nordstrom, *University of Alberta* Consumption Based Carbon Taxes: Feasibility and WTO Consistency.
Carol McAusland and Nouri Najjar, *University of British Columbia*
6. A Comparative Analysis of Environmental Best Management Practices by Canadian Farmers.
James Vercammen and Hossein Ayouqi, *University of British Columbia*.

Training of Graduate Students

LEARN supported 19 students (both graduate and undergraduate) this past year. Seven (7) of these students have defended their theses and completed their degrees by the spring of 2012.

Agencies Providing Matching or Other Support for LEARN projects (cash and in-kind)

- Social Science and Humanities Research Council
- Alberta Agriculture Food and Rural Development
- Environment Canada
- Institute for Land Use Innovation

4. LEARN Networking: Conferences, Workshops and other Activities

1. LEARN held its annual workshop in conjunction with the International Water and Resource Economics Consortium (IWREC) in Banff in June 2011. These events preceded the Annual Meeting of the Canadian Agricultural Economists Society which met at the same facility jointly with the Western Agricultural Economics Association. The agenda appears in the Appendix to this document.
2. LEARN, along with the other ERCA networks, organized the second major policy conference in Ottawa with the title: Growing Forward in a Volatile Environment: Second Annual Canadian Agriculture Policy Conference, January 11-13, 2012. The LEARN session included presentations by Howard Wheeler, Jammie Penm and Vic Adamowicz. In addition six LEARN sponsored posters were presented. The poster titles and presenters are shown in the next section.
3. A workshop with AAFC in Ottawa prior to Policy conference, January 11 2012. This meeting involved network university members and AAFC staff working on issues of relevance to the LEARN mandate. This constituted a full day of AAFC presentations to LEARN members and discussions on research topics. This meeting will be revisited/continued in 2012-13 to continue to promote the dialogue between LEARN and AAFC researchers. Presentation titles appear in the Appendix.

5. Research Outputs during the Reporting Period

Poster Presentations:

Ageson, K. 2012. Agricultural Nutrient Management Employing the Concept of Ecological Goods and Services. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Entem, A., V. Adamowicz, and P. Boxall. An Opportunity Cost Model for Species at Risk Habitat Protection in Saskatchewan's Milk River Watershed. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Holland K. L. Transitioning to a new approach for sustainable development: the case of Manitoba agriculture. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Roy, R. and P. J. Thomassin. Estimating a Wealth Account for Agricultural Land in Quebec: Incorporating Natural Capital into a System of Environmental-Economic Accounts. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Sun, B., P. Bell, F. Zhang, and G. C. van Kooten. Weather Index Insurance: Climate Impacts on Agriculture in China. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Nordstrom, O. and B. Swallow. Effectively turning Knowledge to Action Agriculture's Adoption of Alberta's Carbon Offset Protocols. Presented at the Second Annual Canadian Agriculture Policy Conference: Growing Forward in a Volatile Environment, January 13-14, 2012.

Oral Presentations (**LEARN members in bold**):

Adamowicz, W. 2011. Wetlands Economics. Keynote presentation to the Alberta Institute of Agologists Annual Meeting. Banff, Alberta. March 2011.

Ageson, K. 2012. Agricultural Nutrient Management Employing the Concept of Ecological Goods and Services. Presented to BC Agriculture Nutrient Working Group, Abbotsford, British Columbia, February 2012 (approximately 20 industry stakeholders and policy makers present)

Ageson, K. 2012. Agricultural Nutrient Management Employing the Concept of Ecological Goods and Services. Presented to the Abbotsford-Sumas Aquifer Science Forum, Abbotsford, British Columbia, February 2012. (approximately 45 researchers, policy makers and city officials present)

Boxall, P.C. 2011. Payments for the Provision of Ecological Goods and Services. Annual Meeting of the Society for Range Management, February 6-8, Billings Montana.

Boxall, P.C. 2011. "Policy Instruments to Address Agri-Environmental Issues: Current Practice and Some 'New' Ideas?" Presented to Agriculture and Agri-Food Canada staff and researchers from the University of New Brunswick. Potato Research Centre, Fredericton New Brunswick, November 3rd. Approx 20 in attendance. Also presented to Agriculture and Agri-Food Canada staff and researchers. Crops and Livestock Research centre, Charlottetown, Prince Edward Island, November 4th.

Boxall, P.C. 2012. "Market-based Instruments, and Costing the Prices of Ecological Goods and Services." Presented to a delegation of visiting auditors from the People's Republic of China for the Alberta School of Business. March 2.

Boxall, P.C. 2011. "Analysis of Existing Land Use Change Policy Instruments." Presentation to the Institute of Land Use Innovation Community Advisory Board and Institute staff, September 12, 2011.

Bryan, J.R., B.J. Deaton and A.Weersink. 2011. "Examining the Effect of Social Capital on Farmland Rental Rates in Southern Ontario." Presented at the 2011 CAES-WAEA Joint Annual Meetings, Banff, June 29 – July 1.

Entem, A., W. Adamowicz and P.C. Boxall, An Opportunity Cost Model for Species at Risk Recovery Within Saskatchewan's Milk River Watershed. Economic and social perspectives on water management: An international workshop. June 26 – 28, 2011. Banff Alberta (LEARN and IWREC).

Lawley, C. and C. Towe. 2011. Implicit prices of habitat conservation easements. This paper was presented at the following events: CAES/WAES Annual Conference, July 1, 2011, Banff; the Canadian Land Trust Alliance Annual Conference, September 23, 2011, Kingston ON; the Manitoba Habitat Heritage Corporation Field Staff Meeting, November 17, 2011, Winnipeg; the Department of Economics, University of Manitoba, November 25, 2011, Winnipeg; Ducks Unlimited Canada Institute for Wetlands and Waterfowl Research, January 18, 2012, Oak Hammock Marsh MB; and the Manitoba Conservation Agreements Working Group, February 9, 2012, Winnipeg.

McAusland, C. 2011. Cumulative Carbon Taxation. Conference in Honour of Dr. Colin Clark, UBC Fisheries Centre.

Nordstrom, O. and **B. Swallow.** 2011. A study of the attitudes and awareness to carbon offset protocols in Alberta's agricultural community. Presented to the Climate Change Team at Alberta Agriculture and Rural Development, Edmonton. November 2011.

Vercammen, J. 2011. A Lifecycle Model of Farm Investment in Environmental Capital, University of Edmonton Presentation, May 19, 2011.

Vercammen, J. 2012. The Welfare Impacts of a Conservation Easement. Presented at the University of Alberta, Edmonton, January 26, 2012.

Withey, P. and **G. C. van Kooten.** 2011. The effect of climate change on wetlands in Western Canada. Presented at the 2011 Joint Annual Meeting of the Canadian Agricultural Economics Society and the Western Agricultural Economics Association, June 29 – July 1, 2011, Banff, Alberta.

Wong, L., **G. C. van Kooten** and **J. Clarke.** 2011. The Impact of Agriculture on Waterfowl Abundance: Evidence from Panel Data. Presented at the 2011 Joint Annual Meeting of the Canadian Agricultural Economics Society and the Western Agricultural Economics Association, June 29 – July 1, 2011, Banff, Alberta.

A Symposium on Conservation auctions was organized by LEARN leader **Boxall** for the 2011 Annual meeting of the Canadian Agricultural Economics Society and included the following papers involving LEARN funding and researchers:

Kits, G., W.L. Adamowicz, and **P.C. Boxall.** Do Conservation Auctions Crowd Out Voluntary Environmentally Friendly Activities. Presented at the 2011 Joint Annual Meeting of the Canadian Agricultural Economics Society and the Western Agricultural Economics Association, June 29 – July 1, 2011, Banff, Alberta.

Packman, K., Boxall, P.C. and **O. Perger.** 2011. Cost-effectiveness of Target Constrained Auctions. Presented at the 2011 Joint Annual Meeting of the Canadian Agricultural Economics Society and the Western Agricultural Economics Association, June 29 – July 1, 2011, Banff, Alberta.

Perger, O., Boxall, P.C. and **M. Weber.** 2011. How the Heterogeneity of the Underlying Supply Function Affects Conservation Auction Outcomes. Presented at the 2011 Joint Annual Meeting

of the Canadian Agricultural Economics Society and the Western Agricultural Economics Association, June 29 – July 1, 2011, Banff, Alberta.

Media Pieces

Ageson, K. 2011. Guest Column: Abbotsford Sumas Aquifer Could Save \$126 Million. *Abbotsford Today* November 13, 2011.

Packman, K. project: Manitoba Study puts a dollar value on wetland work. *Grain News* June 12, 2009.

Packman, K. project: Just Ducky. *New Trail* - University of Alumni Association Magazine.

Vercammen, J. "Chew On This"- Food Security, Eh? A Panel Discussion on Sustainable Food in a Canadian Context. Webcast panel discussion sponsored by the Irving K. Barber Learning Centre, hosted by Common Energy UBC, Oxfam UBC, and the UBC Commerce Undergraduate Society's Sustainability Committee. <http://webcasts.ikebarberlearningcentre.ubc.ca/node/1005>

Weersink, A., B. Deaton, J. Bryan and K. Mielke. 2011. Consider interest rates in land deals. *Ontario Farmer* April 12 2011.

In addition the LEARN project "Do Farmland Ownership Patterns Explain Variation in Farmland Rental Rates?" by Brady **Deaton**, James **Bryan** and Alfons **Weersink** was featured in the most recent FCC webinar on land values.

See: http://www.fcc-fac.ca/en/LearningCentre/events/specialpastevents_e.asp.

Publications (both submitted and published)

Boxall, P.C., O. Perger and K. Packman. 2012. An Experimental Examination of Target Based Conservation Auctions. Project report 12-01. Department of Resource Economics and Environmental Sociology, University of Alberta. 22 p.

Cotteleer, G., T. **Stobbe** and G.C. **van Kooten**, 2011. Bayesian Model Averaging in the Context of Spatial Hedonic Pricing: An Application to Farmland Values. *Journal of Regional Science* 51(3): 540-557.

Kits, G., W.L. **Adamowicz**, and P.C. **Boxall**. Do conservation auctions crowd out voluntary environmentally friendly activities? Submitted to the *American Journal of Agricultural Economics*.

Fulton, M.E., and J. **Vercammen**. 2012. Optimal NGO Financing of a Resource Management Certification Scheme. Submitted to the *American Journal of Agricultural Economics*.

Johnston, L., and V. **Lantz**. 2012. An Assessment of Prince Edward Island's Alternative Land Use Services (ALUS) program, 2008-2011. Report Prepared for the PEI Department of Agriculture and Forestry, Charlottetown, PE.

Lawley, C. and C. Towe. 2012. Capitalized Costs of Habitat Conservation Easements. Submitted to the *American Journal of Agricultural Economics*.

Moreau, T.L., T. **Adams**, K. Mullinix, A. Fallick and P.M. Condon. 2011. Recommended practices for climate-smart urban and peri-urban agriculture. Chapter 25 in: A. *Viljoen and J.S.C. Wiskerke*, "Sustainable food planning: evolving theory and practice". Wageningen Academic Publishers, Wageningen, The Netherlands. 600p.

van Kooten, G. Cornelis, Patrick Withey and Linda Wong, 2011. Bioeconomic Modelling of Wetlands and Waterfowl in Western Canada: Accounting for Amenity Values, *Canadian Journal of Agricultural Economics* 59(2):167-184.

Vercammen, J. 2012. Five Page Policy Brief plus Executive Summary prepared as background material for "Environmental BMPs Policies and Outcomes" presentation at *Growing Our Future* Conference, Ottawa, April 5, 2012

Withey, Patrick and G. Cornelis **van Kooten**, 2011. The Effect of Climate Change on Optimal Wetlands and Waterfowl Management in Western Canada, *Ecological Economics* 70(4): 798-805.

Withey, Patrick and G Cornelis **van Kooten**, 2012. The effect of Climate Change on Wetlands and Waterfowl in Western Canada: Incorporating Cropping Decisions into a Bioeconomic Model. Submitted to *Natural Resource Modeling*

Withey, Patrick and G. Cornelis **van Kooten**, 2012. Wetlands Retention and Optimal Management of Waterfowl Habitat under Climate Change. Submitted to the *Journal of Environmental Economics and Management*

Wong, Linda, G. Cornelis van Kooten and Judith A. Clarke, 2012. The Impact of Agriculture on Waterfowl Abundance: Evidence from Panel Data, *Journal of Agricultural & Resource Economics* 37(April): In press.

The ***Canadian Journal of Agricultural Economics Special Issue on Wetlands***, appeared in June 2011. This special issue was sponsored by LEARN in the first year of operation and paper in the special issues were originally presented at the International Workshop on Wetlands Management, Economics and Policy held at the Hotel Grand Pacific, Victoria B.C., 13-15, January 2010. The following papers appear in this journal:

Boxall, P.C. and G.C. van Kooten, **Protecting and Restoring Wetlands: The Way Forward.**

Rashford, B.S., C.T. Bastian and J.G. Cole, **Agricultural Land Use Change in Prairie Canada: Implications for Wetland and Waterfowl Habitat Conservation**

Kim, S.G., S. Cho, and R. K. Roberts, **Identifying Priority Areas for Wetlands Restoration along the Louisiana Coast under the Coastal Wetlands Planning, Protection, and Restoration Act of 1990**

R.D. Simpson, **Allocating Land for an Ecosystem Service: A Simple Model of Nutrient Retention with an Application to the Chesapeake Bay Watershed**

Hill, M.R.J., D.G. McMaster, T. Harrison, A. Hershmillier and Trevor Plews, **A Reverse Auction for Wetland Restoration in the Assiniboine River Watershed, Saskatchewan**

Fernandez, L., **Economic Incentives to Prevent Aquatic Invasive Species in Wetlands**

Yu, J. and K. Belcher, **An Economic Analysis of Landowners' Willingness to Adopt Wetland and Riparian Conservation Management**

van Kooten, G.C., P. Withey, and L. Wong, **Bioeconomic modeling of wetlands and waterfowl in Western Canada: Accounting for amenity values** (NOTE - also listed above under Dr. van Kooten's publications)

Pattison, J., P.C. Boxall and W.L. Adamowicz, **The Economic Benefits of Wetland Retention and Restoration in Manitoba**

APPENDIX

Presentations at LEARN-IWREC workshop in Banff, June 26-28, 2011

Henry Thille (with Talat Genc), *University of Guelph, ON, Canada*

"Dynamic Competition in Electricity Markets: Hydropower and Thermal Generation"

Steven Renzetti (with Diane Dupont), *Brock University, ON, Canada*

"Household Behaviour Related to Water and Energy Conservation"

Marian Weber (with Marius Cutlac), *Alberta Innovates Technology Futures, AB, Canada*

"Impacts of Water Allocation Policies on Climate Change Vulnerability in the South Saskatchewan River Basin"

Chokri Dridi (with Yihong Wang), *University of Alberta, AB, Canada*

"Valuation of Irrigation Water in Southern Alberta: A Stated Preference Approach"

Md. Kamar Ali (with Lixia He, Theodore M. Horbulyk, Danny G. Le Roy and K. K. Klein)

University of Lethbridge, AB, Canada

"Seniority vs. Proportional Allocation in the Bow River Basin: Results from a Mathematical Programming Model"

Gaylene Halter (with John Parkins), *University of Alberta, AB, Canada*

"Water Culture, A Study of Alberta Irrigation Farmers Attitudes Towards Water"

Julia Baird (with Kenneth Belcher and Michael Quinn)

University of Saskatchewan, SK, Canada

"Performance-Based Policy Instruments to Manage Agricultural Water Quality"

Wanhong Yang (with Yonbo Liu, Peter Boxall, Katherine Packman, Marian Weber and Adam Bonnycastle), *University of Alberta, AB, Canada*

"Integrated Economic-Hydrologic Modeling for Examining Cost Effectiveness of Wetland Restoration in a Prairie Watershed"

Scott Jeffrey (with Jim Unterschultz, Peter Boxall, Brett Cortus, Brad Dollevoet, Steve

Koeckhoven and Dawn Trautman-Laslop), *University of Alberta, AB, Canada*

"The Farm-Level Economics of Ecological Goods and Services (EG&S) Production"

Chad Lawley, *University of Manitoba, MB, Canada*

"Implicit Prices of Habitat Conservation Easements"

Alicia Entem, (with Vic Adamowicz and Peter Boxall), *University of Alberta, AB, Canada*
"An Opportunity Cost Model for Species at Risk Recovery within Saskatchewan's Milk River Watershed"

Patrick Withey (with G. Cornelis van Kooten), *University of Victoria, BC, Canada*
"The Effect of Climate Change on Wetlands and Waterfowl in Western Canada: Incorporating Agricultural Decisions into a Bioeconomic Framework"

Van Lantz, *University of New Brunswick, NB, Canada*
"Costs, Benefits, and Payments to Farmers for Ecological Goods and Services (EG&S) in PEI"

Brady Deaton (with James Bryan and Alfons Weersink), *University of Guelph, ON, Canada*
"Examining farmland rented from "others": Who is the "other" and does it matter?"

Presentations at the Joint AAFC-LEARN Pre-Conference Workshop, January 11th, 2012

Frederic Roy-Vigneault
"Impacts of renewable energy production on the agriculture sector in Canada"

Tim Colwill
"Business risk management in Canadian agriculture"

Patrick Verreault
"Understanding the drivers in 'higher risk' agricultural landscapes as defined by the 2006 NAHARP agri-environmental indicator and identifying potential mitigation options"

Robin MacKay
"The Beneficial Management Practice (BMP) Adoption Index"

Beneficial Management Practices: Benefits/Costs, Adoption, Drivers/Barriers, Session Chair:
Aurelie Mogan

Factors that influence Canadian farmers to adopt environmental Beneficial Management Practices, Patrick Verreault and Pierre Aubin.

Holly Mayer, Sara Steeves
"Public Private Benefits Analysis of Selected On-Farm BMPs"

Gemma Boag
"Barriers and motivators to adoption of controlled tile drainage (CTD) in the South Nation watershed"

Hugues Morand

“Valuation of Ecological Goods and Services: Data and Applications”

Yves Bourassa

“An overview of the valuation projects in Environment Canada”

Alexandre Drzymala

“Selecting a Value for Greenhouse Gas Emissions in Government of Canada Regulatory Impact Analysis Statements”

Holly Mayer

“Economic value of grasslands/grazing lands”

Peter Joyce (Holly Mayer)

“Wetlands and Resilience in Agriculture Project (WRAP)”

Ryan Prescott

“Access and Benefit Sharing of Genetic Resources: What is it and why should we care?”

Hugues Morand

“Ecological Goods and Services: Policy Recommendations”

Hugues Morand

“Potential for Market-Based Instruments to Address Environmental Issues in Canada”

Gemma Boag

“Place-based approaches and future agri-environmental policy in Canada”

Lynne Hanson

“Greening the supply chain and impacts on primary production”