# ORGANIC AGRICULTURE CENTRE OF CANADA

## **2009 ANNUAL REPORT**

## **TABLE OF CONTENTS**

Introduction 2	-
Contact Information 2	_
OACC Research Bulletins - 2	
Financial Statement - 3	
Farmer and Industry Collaborators 4	
Research and Extension Collaborators - 4	
Education - 6	-
Expert Committee on Organic Agriculture and Research and Innovation Working	
Group of the Organic Value Chain Round Table 7	
Website Report: January 1st to December 31st 2009 10	-
Peer-Reviewed Publications and Theses 11	
Non-Refereed Publications - 13	_
Newspaper Articles - 14	_
Invited Talks 15	
Meetings and Workshops 16	_
Conference Presentations and Posters 17	
Field Days and Farm Tours 19	-
Committees and Professional Activities 20	-
OACC Advisory Board 21	-
OACC Staff and Affiliates in 2009 22	_
OACC Sponsors and Partners - 23	_

#### INTRODUCTION

In 2009, most of our efforts in the office have been to develop the proposal for the Organic Science Cluster. This involved collaboration among many researchers and industry partners across Canada. It is very exciting to work with such a dedicated, dynamic and diverse group of people. We appreciate the opportunity that Agriculture and Agri-Food Canada has created for significant advances in organic research. Look for reports about Organic Science Cluster research on the OACC website and e-zine, in 2010 and beyond.

Organic farmers across Canada continue in the pioneering spirit of exploring and doing the right thing. It is our privilege and honour to support them as best we can with our research and subsequent extension bulletins and newspaper articles. In 2009, the national organic standard was officially launched (<a href="http://www.tpsgc-pwgsc.gc.ca/cgsb/on-the-net/organic/032-0310-2006-e-Amended Oct 2008-dec 09.pdf">http://www.tpsgc-pwgsc.gc.ca/cgsb/on-the-net/organic/032-0310-2006-e-Amended Oct 2008-dec 09.pdf</a>) with the expectation that markets for Canadian organic products will increase even more to benefit organic farmers and processors in Canada.

Sponsors of OACC, featured on page 23, are crucial to our work and we very much appreciate the support of industry supporters and granting agencies.

The excellent work of OACC staff and students is of real benefit to so many people. Most work on a contract basis as funds permit and act as if they are making a difference. They do! I am grateful for their dedication and contributions. I am also thankful for the volunteered assistance and advice provided by OACC Board members. They help us to keep the big picture in mind and make sure we are responding appropriately to needs across Canada.

We will miss Jane Morrigan, our long time Web Coordinator. She took on new challenges in 2009 and we wish her well. The OACC website, <a href="www.oacc.info">www.oacc.info</a>, continues to grow as the dynamic archive for information related to organic research and education in Canada. Each month an **e-zine** is sent to Friends of OACC. It highlights the most recent up-dates on the OACC website. If you wish to subscribe, please contact <a href="mailto:oacc@nsac.ca">oacc@nsac.ca</a> and we will add your name, or that of a friend or colleague, to our mailing list.

For a complete overview of OACC see: <a href="www.oacc.info/About%20Us/au\_welcome.asp">www.oacc.info/About%20Us/au\_welcome.asp</a>

Ralph C. Martin, Founding Director, OACC

#### CONTACT INFORMATION

Organic Agriculture Centre of Canada Nova Scotia Agricultural College P.O. Box 550 Truro, NS B2N 5E3

Tel: (902) 893-7256 Fax: (902) 896-7095 E-mail: <u>oacc@nsac.ca</u> Website: <u>www.oacc.info</u>

#### **OACC RESEARCH BULLETINS**

#### **Final Research Bulletins**

Winter and Spring Cereal Production in the Maritimes

#### **Interim Research Bulletins**

Management Practices for Control of European Wireworms in Canada

<u>Soil P Status and Nitrogen Fixation on Organic Dairy Farms in Ontario and Nova</u> Scotia

<u>Sustainable Organic Vegetable Systems: Evaluating Green Manure and Biowaste Composts (2006-2009)</u>

Organic Blackcurrant Production: Fertility Amendments and Weed Control

<u>Phosphorus Availability on Organic Dairy Farms: a Closer Look at the Role of Soil Microorganisms</u>

Whole Farm NPK Balances on Maritime Dairy Farms

Fertility Management for Organic Cereal Production

#### **Animal Welfare on Organic Farms Fact Sheet Series**

Farm Assessment Checklist – Laying Hens

Control of Lice and Mange Mites in Cattle

Management of Pest Flies on Organic Farms

Pain Management in Livestock Husbandry: 1. Disbudding and Dehorning

Reducing the Risk of Feather Pecking for Laying Hens in Organic Egg Production

Raising Calves on Organic Dairy Farms

#### FINANCIAL STATEMENT

# OACC Financial Statement as of March 31, 2010 for 2009/10 Fiscal Year Total

Expenditures	
Research Coordination	249,168.38
Research Costs and Analysis	9,284.02
Information Dissemination	15,657.66
Translation	10,997.44
Travel	16,819.88
Financial Management	6,530.94
Total	328,784.02
Revenues	
Province of Nova Scotia	36,362.05
Province of Prince Edward Island	50,000.00
Province of Alberta	34,971.18
Maritime Organic Grain Network sub-contracted from the Atlantic	
Canadian Organic Regional Network, funded by NS Agri-Futures, PEI	
Adapt Council and NB Agricultural Council	7,385.76
Organic Science Cluster (AAFC Growing Forward via Organic	
Federation of Canada)	149,852.61
Homestead Organics	2,500.00
Home Hardware	10,000.00

Total **327,513.14** 

#### Notes:

- 1) These are unaudited expenditures for the fiscal year ending March 31, 2010
- 2) Specific research contracts held in whole or in part by OACC staff are not included in this statement. Other research costs are included on those contracts.
- 3) In-kind contributions (not shown here) are significant, especially those of the Nova Scotia Agricultural College.

#### FARMER AND INDUSTRY COLLABORATORS

OACC is fortunate to work with many dedicated organic farmers and researchers from all parts of Canada. Every effort has been made to acknowledge all of our collaborating partners in this report. If we have missed anyone in this listing, please accept our apologies and let us know so this may be corrected next year.

#### **Farmers**

- Bernard, Mark and Sally PE
- Cousins, Stephen PE
- Renkema, Garry PE
- Walsh, Ron PE
- Whitty, Frank PE
- Zettler, Rick ON

#### Industry

- Berger Peat Moss
- Bragg Lumber
- British Columbia New Varieties
   Development Council, Organic
   Division
- Canadian Wheat Board
- Homestead Organic
- Jardinerie Fortier

- L'Abri Végétal SENC
- Les Fraises de l'île d'Orléans, Inc.
- Les Productions Horticoles Demers
- Les Serres Frank Zyromski, Inc.
- Les Serres Lefort, Inc.
- Les Serres Nouvelles Cultures
- Les Serres Sagami 200, Inc.
- Les Tourbières Berger Ltée.
- Mennell Orchards
- Nature's Crop International
- Nature's Path Foods, Inc.
- Ontario Sheep Marketing Agency
- Organic Meadow, Inc.
- Scotia Organic Milk Producers
- Serres Jardins-Nature
- Western Ag Innovations

#### RESEARCH AND EXTENSION COLLABORATORS

Adl, Sina - Dalhousie University Ametaj, Burim — University of Alberta Antoun, Hani - Université Laval Astatkie, Tess - Nova Scotia Agricultural College

Ball, Matthew – Yukon Department of Energy, Mines and Resources Barkema, Herman – University of Calgary Bélair, Guy - AAFC Saint-Jean-sur-

Richelieu Bergeron, Renée - University of Guelph Berthélémé, Claude - New Brunswick Department of Agriculture and Aquaculture

Bevis, Eric - AAFC Kentville Bittman, Shabtai - AAFC Agassiz Blackshaw, Robert - AAFC Lethbridge Boisclair, Josée - IRDA

Boulanger, Marc - *Manitoba Agriculture,* Food and Rural Initiatives

Boyd, Nathan - Nova Scotia Agricultural College

Brault, Danielle - *Ministère de l'agriculture,* des pêcheries et de l'alimentation du *Ouébec* 

Braun, Gordon - AAFC Kentville Bunch, Martin - York University Burgess, Peter - AgraPoint (NS) Burton, David - Nova Scotia Agricultural College

Caldwell, Claude - *Nova Scotia Agricultural College* 

Carlberg, Jared - *University of Manitoba* Chanasyk, David - *University of Alberta* Cutler, Chris - *Nova Scotia Agricultural College* 

Dansereau, Blanche - *Université Laval* deHalleux, Damien - *Université Laval* DesJardins, Yves - *Université Laval* 

DeVries, Trevor - *University of Guelph* Dorais, Martine - *AAFC Quebec* 

Dufour, Jean-Claude - *Université Laval* Duynisveld, John - *AAFC Nappan* 

Ehret, David - AAFC Agassiz

Eilers, Warren - AAFC Saskatoon Eisen, Rochelle – Certified Organic

Associations of BC

Entz, Martin - *University of Manitoba* Fahrig, Lenore – *Carleton University* Falzon, Laura - *University of Guelph* Fillmore, Sherry - *AAFC Kentville* 

#### RESEARCH AND EXTENSION COLLABORATORS CONTINUED...

Fontaine, Luc - Ministère de l'agriculture, des pêcheries et de l'alimentation du Québec. Forge, Tom - AAFC Agassiz Fox, Catherine - AAFC Harrow Fox, Stephen - AAFC Winnipeg Fredeen, Alan - Nova Scotia Agricultural Frick, Brenda - University of Saskatchewan Gravel, Valérie - Université Laval Greer, Ken - Western Ag Innovations Gulden, Robert - University of Manitoba Hallet, Rebecca – University of Guelph Hamel, Chantal - AAFC Swift Current Hanlon-Smith, Claire - Nova Scotia Department of Agriculture Hao, Xiuming - AAFC Harrow Hijri, Mohamed - Université de Montréal Hollinger, John - Manitoba Agriculture, Food and Rural Initiatives Hucl, Pierre - University of Saskatchewan Jacobs, Chantal - Saskatchewan Ministry of **Agriculture** Jannasch, Rupert - Atlantic Canadian Organic Regional Network Jansen, Jocelyn - Ontario Ministry of Agriculture and Food Janzen, Henry - AAFC Lethbridge Johnson, Eric - AAFC Scott Jones, Andria - University of Guelph Khanizadeh, Shahrokh - AAFC Saint-Jeansur-Richelieu King, Doug – Carleton University King, Jane – *University of Alberta* Knight, Diane - University of Saskatchewan Leblanc, Maryse - IRDA Lefsrud, Mark - McGill University Lin, Wei-Chin - AAFC Agassiz Lindsay, Kathryn – Environment Canada MacKinnon, Susan - Prince Edward Island Department of Agriculture MacRae, Rod - York University Martin, Hugh - Ontario Ministry of Agriculture and Food McMahon, Beth - Atlantic Canadian Organic Regional Network Ménard, Claudine - AAFC Quebec Menzies, Paula - University of Guelph Mercier, Gaston - AAFC St-Jean-sur-Mitchell Fetch, Jennifer - AAFC Winnipeg Mitchell, Scott - Carleton University Mongeon, Mario - Ontario Ministry of

Agriculture and Food

Neilsen, Gerry - AAFC Summerland

Nelson, Louise - University of British Columbia Nichols, Doug - AAFC Kentville Noronha, Christine – AAFC Charlottetown Nurse, Robert - AAFC Harrow Owen, Josée - AAFC Bouctouche Papadopoulos, Yousef - AAFC Truro Pépin, Steeve - Université Laval Peregrine, Andrew - University of Guelph Prithiviraj, Balakrishnan – Nova Scotia Agricultural College Pruski, Kris – Nova Scotia Agricultural College Raviv, Michael - Newe Ya'ar Research Center Reekie, Julia - AAFC Kentville Richards, Theresa - Atlantic Canadian Organic Regional Network Robinson, Darren - University of Guelph Rochette, Phillipe - AAFC Quebec Rodd, Vernon - AAFC Nappan Roddy, Elaine - Ontario Ministry of Agriculture and Food Scharf, Forest - Saskatchewan Ministry of *Agriculture* Sharifi, Mehdi - Nova Scotia Agricultural College Sharpe, Keri - Alberta Agriculture and Rural Development Shirtliffe, Steve - University of Saskatchewan Singh, Av - AgraPoint (NS) Smith, Susan - British Columbia Ministry of Agriculture, Food and Fisheries Spaner, Dean - University of Alberta Specht, Eric - AAFC Kentville St. Arnaud, Marc - Université de Montréal Stewart, Katrine - McGill University Tenuta, Mario - University of Manitoba Tremblay, Nicolas - AAFC St-Jean-sur-Richelieu Trépanier, Martin - Université Laval Tucker, Anita - University of Guelph van Biert, Pauline - Alberta Agriculture vanLeeuwan, John - University of Prince Edward Island Vernon, Bob - AAFC Agassiz Voroney, Paul - University of Guelph Wang, Hong - AAFC Swift Current Warman, Phil - Nova Scotia Agricultural College Zagury, Gérald - Université de Montréal Zebarth, Bernie – AAFC Fredericton

#### **EDUCATION**

OACC web-based courses are available to farmers, students, and others involved in organic agriculture. Participants can register for the courses regardless of their location and participate in the course material during the hours most suitable to them. Many students have found the interactive approach to be enjoyable and educational. It can be a valuable experience to interact with the instructor and with classmates that have similar interests and questions while sitting comfortably at home.

The courses offered in 2009 are listed below, followed by the host institution.

- Composting and Compost Use (Nova Scotia Agricultural College NSAC)
- Key Indicators of Sustainable Agriculture (University of British Columbia)
- Organic Crop Production on the Prairies (University of Manitoba)
- Organic Field Crop Management (NSAC)
- Organic Livestock Production (NSAC)
- Organic Marketing (University of Guelph)
- Organic Soil Fertilization (McGill University)
- Principles of Organic Horticulture (NSAC)
- Transition to Organic Agriculture (NSAC)
- Weed Control in Organic Agriculture (University of Saskatchewan)

Five web-based courses were offered in French, through l'Université Laval and McGill University. These courses are roughly equivalent to the corresponding English courses offered at NSAC.

- Compostage et utilisation du compost en agriculture biologique (Université Laval)
- Production biologique des cultures en champ (Université Laval)
- Productions animales biologiques (Université Laval)
- Transitions vers l'agriculture biologique (Université Laval)
- Fertilisation biologique des sols (McGill University)

NSAC offers a "Certificate of Specialization in Organic Agriculture." Any student who has successfully completed four of the eligible organic agriculture credit courses (including at least two courses from NSAC), and who has an overall average of at least 60% in these courses can apply to receive a Certificate of Specialization in Organic Agriculture.

For more information or to register for a course please visit the OACC website:

English: <a href="https://www.oacc.info/Courses/course\_web.asp">www.oacc.info/Courses/course\_web.asp</a>

French: www.oacc.info/Courses/courses\_web\_f.asp

# EXPERT COMMITTEE ON ORGANIC AGRICULTURE AND RESEARCH AND INNOVATION WORKING GROUP OF THE ORGANIC VALUE CHAIN ROUND TABLE

The Expert Committee on Organic Agriculture (ECOA) and Research and Innovation Working Group of the Organic Value Chain Roundtable has developed research priorities for each of 8 categories. The categories are 1) animals, 2) plants, 3) soils, 4) ecological systems, 5) food quality and health, 6) marketing and 7) policy and 8) sustainable agriculture and rural communities. The priorities for 2010 build on those developed in 2005 through 2008 and the Farmer Research Needs Survey (2008-9). Priorities are listed as succinct statements with some areas of concentration noted.

As a General Research Priority, ECOA/RIWG recommends establishing funds and an application procedure to facilitate research in organic agriculture and food, to address the goals of carrying out research for the public good, including long term research, making research results publicly available and reducing requirements for matching funding from industry. ECOA/RIWG also recommends investigating research accomplishments in other areas of the world that relate to the research needs of organic agriculture in Canada.

#### 1) Animals

Design animal production systems that are most conducive to normal animal behaviour and animal health, while enhancing food safety.

Suggested areas of concentration are:

- outdoor management systems for livestock and poultry with respect to parasites and disease management (e.g. avian influenza) as well as environmental concerns
- alternative nutrition practices and supplements for balanced livestock diets
- optimally designed systems for organic swine (in light of parasites, diseases, environmental concerns and rodent management)
- animal welfare issues in dairy husbandry (includes animal health, housing, pasture nutrition, etc.)
- parasite prevention and control in livestock (especially sheep)
- grazing nutrition

#### 2) Plants

Development of cropping systems including crop rotations and cover crops for pest management and nutrient cycling.

Select and breed for plant varieties suitable for organic management that are:

- adapted to diversified landscapes, regions, and changing climates
- disease and pest resistant/tolerant and competitive with weeds, improve food quality and yield adequately

Suggested areas of concentration are:

- emerging new pest species
- known regional pest species
- those species identified on national minor use list of pest management priorities
- for weeds, examples would be ragweed, yellow mustard, Canada thistle, quackgrass, kochia, wild oats, sow thistle, field bindweed, chamomile

#### **ECOA/RIWG CONTINUED...**

• continued research for alternative pest management products, especially to replace older products such as copper and sulphur

#### 3) Soils

Develop integrated nutrient management systems (soils, crops, feeds, livestock, manures/composts) and evaluate sustainability of organic production.

Suggested areas of concentration are:

- green manures and crop rotation for soil fertility and soil health
- elucidating soil biological activity and how to manage it beneficially
- assessing short and long term soil fertility issues including the impact of long term compost use (for example: the availability and/or buildup of organic matter, phosphorus, nitrate, zinc, copper, calcium and sulphur)
- evaluating acceptable input substances on a regional basis
- growing media systems for organic greenhouse production

#### 4) Ecological Systems

To assess and improve ecological goods and services (EG&S). To evaluate the interrelationships of ecological factors in organic farming systems.

Suggested areas of concentration are:

- optimizing energy use efficiency and resources, on organic farms including greenhouse systems
- assessing air quality (e.g. greenhouse gases)
- assessing water quality and water use efficiency
- optimizing soil quality (for example: tillage and carbon sequestration issues)
- optimizing agro-biodiversity

#### 5) Health and Food Quality

Identify links between organic systems, healthy food and risk reduction. Links between food and human health.

Suggested areas of concentration are:

- developing improved approaches for cleaning, sanitizing and disinfecting in organic food processing systems
- developing preservation alternatives in organic food systems
- evaluating the concentration of nutrients, antioxidants and other bio-constituents in food products and developing plant and animal production systems that optimize levels of these constituents
- assessing the relationships between the quality of soils, amendments, plants, animals and food
- assessing the impact of management on the quality of soils, amendments, plants, animals and food
- identify the impacts of organic food on human health

#### 6) Marketing

Identify emerging consumer trends, serviced by imports, and the opportunities and barriers to investment and development in domestic production that could respond to emerging markets.

#### **ECOA/RIWG CONTINUED...**

Suggested areas of concentration are:

- Canadian organic market research;
  - o assessing the preference for, and perceived benefits of, Canadian organic and/or regional/local products and their relationship to price
  - o assessing Canadian consumer understanding and confidence in organic food systems
  - o characterizing the Canadian organic market (import, export, distribution channels)
  - o determining market prices and volumes and sector opportunities
- assessing the impact of a Canada Organic logo
- assessing the range and implementation of alternative marketing models including cooperatives, local marketing, other (e.g. fair trade)

#### 7) Policy

a. Assess the impact of new Genetically Engineered (GE) crops (e.g. alfalfa) on organic systems, while considering regulatory and liability issues. Conduct research to inform policy makers on the issues surrounding GE crops related to their ecological, social and economic impacts on agriculture, including organic agriculture.

Suggested areas of concentration are:

- threshold levels
- pathways of contamination (for example: grain handling, seed, manure/compost, etc.)
- effects on pollinators
- legislative models for dealing with liability issues
- strategies for developing GE free zones
- practical methods of detection and limiting contamination
- b. Assess the impact of nano-technology on organic systems (prohibited in organic standards in EU based on precautionary principle)
- c. Develop policy mechanisms for payment and/or recognition of ecological goods and services (EG&S) in organic production systems.
- d. Research models of land use (e.g. no-development zones) on land values and availability of land for organic farming.
- e. Research models for new entrants programs to organic agriculture.
- f. Research alternative models of intellectual property ownership to ensure public access to genetic diversity of varieties in the organic sector.

#### 8) Sustainable Agriculture and Sustainable Communities

Study, evaluate and make public policy recommendations for organic agriculture as a form of sustainable agriculture that is environmentally, socially and economically responsible, and supportive of rural and urban communities.

Suggested areas of concentration are:

- assessing how organic agriculture can strengthen the relationships between rural and urban communities
- assessing the impacts and feasibility of urban organic agriculture
- developing linkages with researchers into sustainable livelihoods in developing countries

#### Website Report: January 1st to December 31st 2009

The OACC/CABC website continues to sustain a rising demand for its pages, with an increase of 20% in page views over the past year, along with a 16% increase in visitors. Total hits per annum reached a milestone of over 5 million as of July 2009, a trend that has held through the remaining months of 2009 and that we aim to continue and build upon into 2010. Along with heightened demand, the OACC website continues to grow and evolve. The number of files in the OACC website folder continues to increase as new content is added, with over 15,000 files now populating the folder, a 30% increase over last year.

Table 1: OACC/CABC Website Summary Statistics for 2008 and 2009

	February 1, 2008 to February 1, 2009	January 1, 2009 to January 1, 2010
Total Hits all files	4,554,227	5,209,176
Total Hits for Page views	1,648,010	1,985,203
# Unique Visitors	204,862	239,102
# Visits	540,455	719,420
% Returning Visitors	16.2%	14.8%
Average Visits per Visitor	2.64	3.01
Top visitor countries	Canada, France, USA, UK	Canada, France, USA, UK

Figure 1. Hits for Pages for the Last 12 Months (January 1 to December 31, 2009)

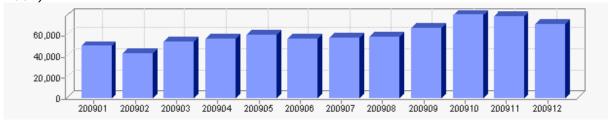
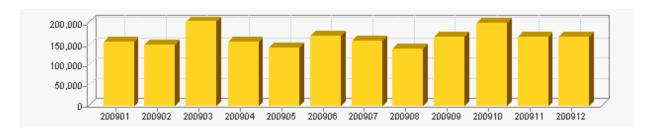


Figure 2. Number of Visits for the last 12 months (January 1 to December 31, 2009)



The *Organic Friends E-Zine/Cyberbulletin Les amis du bio* marked the beginning of its 6<sup>th</sup> year of publication in November 2009. The E-zine distribution list has grown by 1200 subscribers over the past year, with over 12,400 subscribers now on the list. The visibility of the E-zine has remained strong, with a constant rate of 25% of recipients opening the E-zine directly from the distribution e-mail, and 30% of those clicking links from the main monthly E-zine page.

Submitted by Joanna MacKenzie, OACC Website Coordinator (<a href="mackenzie@nsac.ca">jmackenzie@nsac.ca</a>)

#### PEER-REVIEWED PUBLICATIONS AND THESES

- **Arcand, M.M.**, **Lynch, D.H.**, Voroney, R.P., van Straaten, P. 2010. Residues from a buckwheat (*Fagopyrum esculentum*) green manure crop grown with phosphate rocks influence soil phosphorus dynamics. Canadian Journal of Soil Science (*in press*).
- **Burkhard, N.E.**, **Lynch, D.H.**, and Percival, D.C. 2010. Vegetation and nitrogen dynamics for organically managed highbush blueberry (*Vaccinium corybosum* L.) in Nova Scotia. Acta Horticulturae (*in press*).
- **Burkhard, N.E.**, **Lynch, D.H.**, Percival, D.C., and **Sharifi, M**. 2009. Organic mulch impact on vegetation dynamics and productivity of highbush blueberry under organic production. Hortscience 44(3):1-9.
- Hammermeister. A.M., MacKenzie, J. and Nelson, K. Fertility Management for Organic Cereal Production (Abstract). Atlantic Agronomy Workshop. Charlottetown PE. January 19-20<sup>th</sup>, 2010. Canadian Journal of Plant Science (in press).
- Klimaszewski, J., **Lynch, D.**, Majka, C.G., **Renkema, J.**, Savard, K. and Hlavá, P. 2009. *Pella glooscapi*, a new species (Coleoptera, Staphylinidae), and new record of aleocharine beetles from Nova Scotia, Canada. In: Majka C.G., Klimaszewski J. (Eds.) Biodiversity, Biosystematics, and Ecology of Canadian Coleoptera II. ZooKeys 22: 35-44.
- **Lynch**, **D.H.** 2009. Environmental impacts of organic agriculture: A Canadian perspective. Canadian Journal of Plant Science 89: 621-628.
- **Lynch, D.H., Sharifi, M., Hammermeister, A.M.** and Burton, D. 2010. Rotation sequence and soil amendment impact on productivity, soil quality and nitrogen losses, under organic vegetable production in Atlantic Canada. 28<sup>th</sup> Annual International Horticultural Conference. Lisboa Portugal (submitted).
- Lynch, D.H., Sharifi, M., Hammermeister, A.M. and Burton, D. Sustainable Organic Potato Production Using Green Manures and Off-Farm Organic Amendments. (Abstract). Atlantic Agronomy Workshop. Charlottetown PE Jan 19-20, 2010.
- MacKenzie, J., Nelson, K. and Hammermeister, A.M. Fertility and Weed Management for Establishing Black Currant Stands (Abstract). Atlantic Agronomy Workshop. Charlottetown PE. January 19-20<sup>th</sup>, 2010. Canadian Journal of Plant Science *(in press)*.
- MacRae, R., **Martin, R.C.**, Juhasz, M and Langer, J. 2009. Ten percent organic within 15 years: Policy and programme initiatives to advance organic food and farming in Ontario, Canada. Renewable Agriculture and Food Systems 24(2): 120–136.
- MacRae, R.J., **Lynch, D.H.** and **Martin, R.C.** 2010. Improving energy efficiency and GHG mitigation potentials in Canadian organic farming systems. Journal of Sustainable Agriculture (*in press*).
- **Nelson, K.L.**, **Lynch, D.H.**, and Boiteau, G. 2009. Assessment of changes in soil health throughout organic potato rotation sequences. Agriculture, Ecosystems and Environment 131:220-228.

#### PEER-REVIEWED PUBLICATIONS AND THESES CONTINUED...

- Liu. K., **Hammermeister, A.M.**, Entz, M.H., Astatkie, T., Warman, P.R., Patriquin, D.G. and **Martin, R.C.** 2009. Nitrogen availability during transition to organic potato production under contrasting farming systems. Canadian Journal of Soil Science (*submitted*).
- Sharifi, M., Lynch, D.H., Zebarth, B.J., Zheng, Z., and Martin, R.C. 2009. Evaluation of nitrogen supply rate measured by in situ placement of Plant Root Simulator probes as a predictor of nitrogen supply from soil and organic amendments in potato crop. American Journal of Potato Research 86: 356–366.
- **Thissaverasingan, S.** 2009. Evaluation of composted paper mill biosolids as peat substitute in horticultural growing media. M.Sc. thesis, Nova Scotia Agricultural College.

#### **Non-Refereed Publications**

- Hammermeister, A.M. and Nelson, K. Organic Science Prioritization Process, including Results of the Strategic Research Prioritization Process: Background Briefing Document. Organic Agriculture Centre of Canada, Nova Scotia Agricultural College, Truro NS. 2009.
- **Martin, R.C.** Allowing thought, time and sacrifices for local food. Truro Daily News. November 28<sup>th</sup>, 2009.
- Martin, R.C. Old roads traveled with less impact. Truro Daily News. October 24<sup>th</sup>, 2009
- **Martin, R.C.** Managing without more people in Nova Scotia. Truro Daily News. September 19<sup>th</sup>, 2009.
- Martin, R.C. Full cost of advertising. Truro Daily News. September 5<sup>th</sup>, 2009.
- **Martin, R.C.** Shift from front-porch culture to enclosed back decks not for everyone. Truro Daily News. August 29<sup>th</sup>, 2009.
- Martin, R.C. Thomas Berry: A great story teller. Truro Daily News. July 2<sup>nd</sup>, 2009.
- **Martin, R.C.** Music deepens our understanding for the job ahead. Truro Daily News. June 27<sup>th</sup>, 2009.
- **Martin, R.C.** Marking 100 years of nitrogen fertilizer from fossil fuel. Western Producer, p. 64. June 18<sup>th</sup>, 2009.
- **Martin, R.C.** Ten percent solutions to environmental issues. Truro Daily News. May 9<sup>th</sup>, 2009.
- Martin, R.C. The view from sidewalks. Truro Daily News. February 21st, 2009.
- **Martin, R.C.** Resolving to sacrifice or to celebrate. Truro Daily News. February 7<sup>th</sup>, 2009.
- Mederos, A., Peregrine A., Fernández, S., Menzies P., VanLeeuwen J., Kelton, D., Martin, R.C. Study of the Population Dynamics of Gastrointestinal Nematodes in Organic Sheep Farms in Canada with an Attempt to Introduce Sustainable Parasite Control Measures. ON Organic. October 2009.
- Menzies, P., Peregrine, A., Fernández, S., Kelton, D., Jones, A., Mederos, A., Guthrie, A., Martin, R., VanLeeuwen, J., LeBoeuf, A., Corriveau, F. and Jansen, J. Handbook for the control of internal parasites of sheep. In: Proceedings "Sustainable Parasite Management: Dealing with Parasites Take Control", Small Veterinarians of Ontario, Guelph ON, 30 pp. May 13<sup>th</sup>, 2009.
- Organic Agriculture Centre of Canada. Canadian Organic Research Inventory by Subject 2008. Nova Scotia Agricultural College, Truro NS. 276 pp. 2008.

#### **NEWSPAPER ARTICLES**

Every month, organic research and innovation in Canada is highlighted in a newspaper article appearing in publications for both Eastern and Western Canada, including the Western Producer, Farm Focus and Ontario Farmer. These articles are posted at the OACC website one month after publication. Several articles have been posted as audio files, available for download as an mp3. To read or listen, visit <a href="http://www.oacc.info/NewspaperArticles/na\_welcome.asp">http://www.oacc.info/NewspaperArticles/na\_welcome.asp</a>

- Organic Community Honours Its Own (Brenda Frick, January 2009)
- Heritage Breeds of livestock are in good hands across Canada (Jane Morrigan, January 2009)
- The Seven Principles of the Canadian Organic Standards (Janine Gibson, February 2009)
- Nanotechnology: Environmental Superhero or Ticking Time Bomb? (Tanya Brouwers, February 2009)
- Going Organic Network Is Really Cooking (Brenda Frick, March 2009)
- Graduate Students Receive Top Honours (Tanya Brouwers, March 2009)
- It's Not Too Early to Think of Seed Cleaning (Tracy Salisbury and Brenda Frick, April 2009)
- Canada's Disappearing Farmland (Tanya Brouwers, April 2009)
- GO Moves Forward Strengthened (Brenda Frick, May 2009)
- Deeper Organic Agriculture (David Orton, May 2009)
- As Above, So Below: Building Community in the Soil and in Agriculture (Janine Gibson, June 2009)
- One Hundred Years of Nitrogen Fertilizer from Fossil Fuel (Ralph C. Martin, June 2009)
- Muskoday Reclaims Relationship with Food (Brenda Frick, July 2009)
- Identifying Lameness in Dairy Cattle (Tanya Brouwers, July 2009)
- Heat Stress in Ruminants (Tanya Brouwers, August 2009)
- Time to Go Fishin' (Brenda Frick, September 2009)
- Reducing the Risk of Feather Pecking For Laying Hens in Organic Egg Production (Tanya Brouwers, September 2009)
- Reducing Tillage in Organic Agriculture on the Prairies (Iris Vaisman, October 2009)
- Animal Welfare Task Force Releases Guidance Documents (Tanya Brouwers, October 2009)
- Organic Research Blossoms South of the Border (Jessica Valois and Brenda Frick, November 2009)
- November 2009 Insect Friends and Foes (Joanna MacKenzie, November 2009)
- Glendive, Montana: Farm to Table Coop (Jessica Valois and Brenda Frick, December 2009)
- Shifting to Local Markets (Ralph C. Martin, December 2009)

#### **INVITED TALKS**

- **Lynch, D.H.** 2009. Environmental benefits of organic agriculture. 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 2009.
- Martin, R.C. 2009. Can organic systems provide food security in Atlantic Canada? 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 2009.
- Martin, R.C. 2009. A Viable Energy Sector in the Hinterland is Good for Halifax. Halifax Regional Municipality and Nova Scotia Agricultural College Energy Meeting. Truro, NS. December 2009.
- Martin, R.C. 2009. The Human Link to Climate Change. Your Earth, Your Say Town Hall, Nova Scotia Agricultural College. Truro, NS. November 2009.
- Martin, R.C. 2009. Food Sovereignty in Local Communities. Peace and Development Association, St Mary's University. Halifax, NS. November 2009.
- Martin, R.C. 2009. Research and Innovation Working Group Report. Organic Value Chain Round Table. Calgary, AB (presented by phone). October 2009.
- Martin, R.C. 2009. Land Use Issues in Forestry and Agriculture. Forest Forum 2009, Nova Forest Alliance. Truro, NS. October 2009.
- Martin, R.C. 2009. Academics and Local Food: Good Fit or Ships Passing in the Night? Nova Scotia Food Summit, Friends of Agriculture in Nova Scotia. Wolfville, NS. October 2009.
- Martin, R.C. 2009. What Problems Have Brought us to the Need For a Food Summit? Nova Scotia Food Summit, Friends of Agriculture in Nova Scotia. Wolfville, NS. October 2009.
- Martin, R.C. 2009. Local and Organic Food Trains: Linked, Divergent or Colliding? Public lecture, College of Sustainability, Dalhousie University. Halifax, NS. October 2009.
- **Martin, R.C.** 2009. Countering Global Displacement. Class lecture, College of Sustainability, Dalhousie University. Halifax, NS. October 2009.
- Martin, R.C. 2009. Meeting the growing demand for both local and organic food. 6th Annual Organic Harvest Meal, Organic Producers Co-operative of PEI. Charlottetown, PE. September 2009.
- **Martin, R.C.** 2009. New farmers and OACC. Canadian Association of Diplomas in Agriculture conference. Truro, NS. June 2009.
- Martin, R.C. 2009. What's an Educated Biologist To Do? Atlantic Provinces Council on the Sciences (APICS) Undergraduate Biology Conference. NSAC, Truro, NS. March 2009.

#### **MEETINGS AND WORKSHOPS**

The following list outlines events that were coordinated or attended by OACC staff members in 2009.

- 28<sup>th</sup> Annual Guelph Organic Agriculture Conference and Natural Sciences Research Symposium. Guelph, ON.
- 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference, Truro, NS.
- Atlantic Canadian Organic Regional Network's Organic Small Fruit Workshop.
- Canadian Society of Agronomy, 5<sup>th</sup> Atlantic Agronomy Workshop, Charlottetown, PE.
- Homeopathy for the dairy herd. Scotia Organic Milk Producers, Brookfield, NS.
- Intensive grazing for cattle workshop with Sarah Flack. Scotia Organic Milk Producers, Grand Pre, NS.
- International Organic Inspectors Association Organic Inspector Course, Summerside, PE.
- Maritime Organic Grains Network PEI Farmer Meeting.
- Nova Scotia Federation of Agriculture Annual General Meeting, Truro, NS.
- Nova Scotia Food Summit, Wolfville, NS.
- Organic Soybean Workshop Maritime Organic Grains Network.
- Prince Edward Island Blackcurrant Producers Meeting, Charlottetown, PE.

#### **CONFERENCE PRESENTATIONS AND POSTERS**

- Guthrie, A.D., Learmount, J., Peregrine, A.S., Kelton, D.F., VanLeeuwen, J., Menzies, P.I., Fernández, S., Martin, R.C., Mederos, A. and Taylor, M.A. 2009. Evaluation of a predictive computer model for use in Canadian sheep flocks. Oral presentation at the 22<sup>nd</sup> International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Calgary, AB. August 9-13<sup>th</sup>, 2009.
- Halde, C., Hammermeister, A.M., McLean, N.L., Webb, K. and Martin, R.C. Soil compaction and forage productivity under varying intensities of rotational grazing. Oral presentation at the joint CSA-CSSS-CSAFM Conference. Guelph, ON. August 5-7<sup>th</sup>, 2009.
- Hammermeister, A.M., and Nelson, K.L. 2009. Research Needs Survey of Organic Farmers in Ontario. Oral presentation at the Organic Research Symposium, Natural Sciences Session, 28<sup>th</sup> Annual Guelph Organic Conference, Guelph, ON. January 23<sup>rd</sup>, 2009.
- Hammermeister, A.M., MacKenzie, J. and Nelson, K.L. Fertility Management for Organic Cereal Production. Oral presentation at the Atlantic Agronomy Workshop. Charlottetown, PE. January 19-20<sup>th</sup>, 2010.
- Henry, R. and Hammermeister, A.M. Maritime Organic Grain Production. Oral presentation at the 10<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference Charlottetown, PE. March 2010
- Lynch, D.H., Main, M and Voroney, P. 2009. Field Studies of the Relationship Between Soil Phosphorus and Legume Biological Nitrogen Fixation on Organic Dairy Farms in Ontario. Poster presentation at the joint CSA-CSSS-CSAFM Conference. Guelph, ON. August 5-7<sup>th</sup>, 2009.
- Lynch, D.H., Sharifi, M., Burton, D. and Hammermeister, A.M. Changes in soil quality and nitrogen losses under organic potato rotations in Atlantic Canada. Oral presentation at the Joint meeting: Soil Science Society of Ireland and British Soil Science Society. September 2009.
- Lynch, D.H., Sharifi, M., Clegg, E., Owen, J., Hammermeister, A.M. and Burton, D. 2009. Management-induced changes in nitrous oxide emission from organic potato rotations in Eastern Canada. Oral presentation at the Organic Research Symposium, Natural Sciences Session, 28<sup>th</sup> Annual Guelph Organic Conference, Guelph, ON. January 23<sup>rd</sup>, 2009.
- Lynch, D.H., Sharifi, M., Hammermeister, A.M. and Burton, D. Sustainable Organic Potato Production Using Green Manures and Off-Farm Organic Amendments. Oral presentation at the Atlantic Agronomy Workshop. Charlottetown, PE. January 19-20<sup>th</sup>, 2010.
- MacKenzie, J., Beavers, R. and Hammermeister, A.M. 2009. Organic Oilseed Pumpkin Production in the Maritimes. Poster presentation at the 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 26-28<sup>th</sup>, 2009.

#### CONFERENCE PRESENTATIONS AND POSTERS CONTINUED...

- MacKenzie, J. and Hammermeister, A.M. 2009. European Wireworms: Integrated and Organic Management Options. Poster presentation at the 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 26-28<sup>th</sup>, 2009.
- MacKenzie, J., Nelson, K.L. and Hammermeister, A.M. Fertility and Weed Management for Establishing Black Currant Stands. Oral presentation at the Atlantic Agronomy Workshop. Charlottetown PE. January 19-20<sup>th</sup>, 2010.
- Main, M. and Lynch, D.H. 2010. Soil P Status and Nitrogen Fixation on Organic Dairy Farms. Poster presentation at the Atlantic Agronomy Workshop, Charlottetown, PE. January 19-20<sup>th</sup>, 2010.
- Main, M., Lynch, D.H., Ward, A., Voroney, P., Juurlink, S., Schneider, K. and O'Halloran, I. 2009. Soil phosphorus and nitrogen fixation on organic dairy farms in Ontario. Oral presentation at the Organic Research Symposium, Natural Sciences Session, 28<sup>th</sup> Annual Guelph Organic Conference, Guelph, ON. January 23<sup>rd</sup>, 2009.
- Main, M., Ward, A., Lynch, D.H., Voroney, P., Juurlink, S., Schneider, K. and R.C. Martin. 2009. Soil phosphorus and biological nitrogen fixation on organic dairy farms in Ontario and Nova Scotia Year 1 update. Poster presentation at the 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 26-28<sup>th</sup>, 2009.
- Mederos, A., Fernández, S., Peregrine, A., Kelton, D., Menzies, P., VanLeeuwen, J., LeBoeuf, A. and Martin, R.C. 2009. Epidemiological study of gastrointestinal nematodes in sheep under organic and conventional production systems in Canada. Oral presentation at the 12<sup>th</sup> International Symposium on Veterinary Epidemiology and Economics (ISVEE), Durban, South Africa. August 9-14<sup>th</sup>, 2009.
- Mederos, A., Fernández, S., Peregrine, A.S., Kelton, D., Menzies, P., VanLeeuwen, J., LeBoeuf, A., Corriveau, F., Guthrie, A. and Martin, R.C. 2009. Population dynamics of gastrointestinal nematodes in organic and conventional sheep farms in Canada descriptive statistics. Oral presentation at the 7th International Sheep Veterinary Congress, Stavanger, Norway, June 12-16<sup>th</sup>, 2009.
- Mederos, A., Fernández, S., Peregrine, A.S., Kelton, D., VanLeeuwen, J., Menzies, P., LeBoeuf, A. and Martin, R.C. 2009. Epidemiological study of gastrointestinal nematodes in sheep under organic and conventional production systems in Canada. Oral presentation at the 22nd International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Calgary, AB. August 9-13<sup>th</sup>, 2009.
- Nelson, K.L., Lynch, D.H., and Boiteau, G. 2009. Assessment of Soil Health. Poster presentation at the 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 26-28<sup>th</sup>, 2009.
- Nelson, K.L., MacKenzie, J. and Hammermeister, A.M. Fertility and Weed Management for Establishing Black Currant Stands. Oral presentation at the 10<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference: Berry Symposium. Charlottetown, PE. March 2010.

#### CONFERENCE PRESENTATIONS AND POSTERS CONTINUED...

- Renkema, J. and Lynch, D.H. 2009. The effect of mulch on ground-beetle (Carabidae) captures in highbush blueberries. Oral presentation at the Organic Research Symposium, Natural Sciences Session, 28<sup>th</sup> Guelph Organic Conference. Guelph, ON. January 23<sup>rd</sup>, 2009.
- Sharifi, M., Lynch, D.H., Hammermeister, A.M. and Burton, D. 2009. Nitrous oxide emissions from an organic potato rotation in Eastern Canada as influenced by legume green manure and organic amendment. Submitted to ASA-CSSA-SSSA 2009 annual meeting.
- Sharifi, M., Lynch, D.H. and Hammermeister, A.M. Biowaste composts and crop rotation effects on soil quality indicators and soil N availability in an organic potato rotation. Poster presentation at the CSSS-CSA-CSAFM joint conference, Guelph, ON. August 5-7<sup>th</sup>, 2009.
- Sharifi, M., Lynch, D.H., Hammermeister, A.M. and Burton, D. 2009. Toward sustainable organic vegetable production using biowaste composts and green manures. Poster presentation at the 9<sup>th</sup> Annual Atlantic Canadian Organic Regional Network (ACORN) Conference. Truro, NS. February 26-28<sup>th</sup>, 2009.

#### FIELD DAYS AND FARM TOURS

- Maritime Organic Grains Network and OACC Prince Edward Island Field Day
- Maritime Organic Grains Network and OACC New Brunswick Field Day
- NSAC Open House: Field Trip to Organic Cropping System (C206) and Brookside Organic Research Site, NS
- Organic Dairy Transition Consultations with Roger Henry
- PEI Crop and Livestock Research Centre Open House at Harrington Research Station

#### COMMITTEES AND PROFESSIONAL ACTIVITIES

#### Ralph Martin:

- Member, Expert Committee on Organic Agriculture (ECOA)
- Chair, Animal Welfare Task Force of ECOA
- Member, Steering Committee for OACC Prairie Coordinator
- Facilitator, Organic Prairie Research Coalition
- Member, Advisory Committee on Agriculture, Statistics Canada
- Member, Organic Value Chain Round Table
- Member, Action Team assessing the Environmental Performance of Agriculture in Nova Scotia
- Chair, Local Food Team, Spirit of Nova Scotia
- Treasurer, Living Earth Council (LEC)
- Chair, Cool Truro Campaign, LEC
- Supervisor for Caroline Halde, M.Sc. graduate (2009), NSAC
- Committee member for M.Sc. candidates Amanda Ward, Margaret Graves, Kathryn Rutherford and Daniel MacEachern.
- Committee member for Ph.D. candidates Jillian Martin and Kristen Lowitt
- Chapter leader for Writing Project of the People's Food Policy Project.

#### Andy Hammermeister:

- Member, Agriculture Institute of Canada (AIC)
- AIC Board of Directors
- Member, Canadian Society of Agronomy
- Member, Canadian Society of Soil Science
- Professional Agrologist, Nova Scotia Institute of Agrologists
- Chair, Organic Extension Forum
- Co-Supervisor for Donald Kerr, M.Sc. graduate (2009), NSAC
- Committee member for M.Sc candidates Sebastian Margarit, Caroline Halde and Emily Clegg, NSAC
- Manager, OACC

#### Derek Lynch:

- Executive Director, Eastern Region, Canadian Society of Agronomy
- Voting member of the Canadian General Standards Board Technical Committee on Organic Agriculture
- Member and Chair of the National Expert Committee on Organic Agriculture/Research and Innovation Working Group of the Organic Value Chain Round Table
- Supervisor for Dr. Mehdi Sharifi, Post Doctoral Fellow (2008-2009)
- Co-Supervisor for Ph.D. Candidates Justin Renkema, NSAC/Dalhousie University and Kim Schneider, NSAC/University of Guelph
- Supervisor for Sukkasini Thissaverasingan, M.Sc. graduate (2009), and M.Sc. candidates Jeff Nimmo, Amanda Ward and Emily Clegg, NSAC

#### Michael Main:

Participation in Farm Energy Nova Scotia 9FENS consultation group

#### **OACC ADVISORY BOARD**

OACC is an operating division of the Nova Scotia Agricultural College (NSAC) and is served by an Advisory Board representing stakeholder groups from across Canada. It is comprised of members appointed by the President of NSAC for staggered three year terms. The 2009 Board is shown below.

For a current list of Board Members see: <a href="www.oacc.info/Board/board\_welcome.asp">www.oacc.info/Board/board\_welcome.asp</a>

OACC Board members deliberate and make recommendations about policy, strategic directions and sustaining OACC. The Board considers feedback from Advisory Forums held at organic conferences across Canada each year. Groups represented on the Board include organic farmers, transitional farmers, food distributors and retailers, university researchers, students, Agriculture and Agri-Food Canada and organic organizations. The board must include at least one member from Manitoba or Alberta, and each of British Columbia, Saskatchewan, Ontario, Québec and the Atlantic provinces.

We are indebted to past and current Board members who selflessly contribute time and help us to pursue our Vision.

#### 2009 Advisory Board Members:

- Danielle Brault Répondante en agriculture biologique MAPAQ, QC
- Ian Cushon, Chair Moose Creek Organic Farm, SK
- Paul Voroney University of Guelph, ON
- Chris Cutler Nova Scotia Agricultural College, NS
- Loïc Dewavrin Les Fermes Longprés, QC
- Dag Falck Nature's Path Foods, BC
- **Deb Foote** The Organic Grocer, BC
- Jennifer Grant Harmony Whole Foods Market, ON
- Randy Gubersky Gubersky Family Farm, AB
- Peter Hicklenton Agriculture and Agri-Food Canada, NS
- Chantal Jacobs Saskatchewan Agriculture and Food, SK
- Kim Schneider Student, University of Guelph, ON
- Ann Slater Organic Farmer, Ecological Farmers Association of Ontario, ON

#### **OACC STAFF AND AFFILIATES IN 2009**

**Rick Corbett** 

Research and Extension Associate

Tel: (780) 484-5502

Email: rickcorbett@shaw.ca

Dr. Brenda Frick

Research and Extension Coordinator University of Saskatchewan

Tel: (306) 966-4975

Email: brenda.frick@usask.ca

Dr. Andrew Hammermeister

Manager

Tel: (902) 893-8037

Email: ahammermeister@nsac.ca

Dr. Derek Lynch

Assistant Professor and Canada Research

Chair in Organic Agriculture Nova Scotia Agricultural College

Tel: (902) 893-7621 Email: <u>dlynch@nsac.ca</u>

**Don Kerr** 

Research Associate Tel: (902) 896-2469

Email: <u>dkerr@nsac.ca</u>

**Anne Macey** 

Research Associate Tel: (250) 537-5511

Email: annemacey@telus.net

Joanna Mackenzie

Research Associate Tel: (902) 896-2469

Email: <u>imackenzie@nsac.ca</u>

Mike Main

Research Associate

Regional Field Manager, Organic Meadow

Tel: (902) 896-2467 Email: <u>mmain@nsac.ca</u>

Dr. Ralph C. Martin

Founding Director Tel: (902) 893-6679 Email rmartin@nsac.ca

Jane Morrigan

Website Coordinator

Tel: (902) 893-8096

Email: jmorrigan@nsac.ca

**Andrea Munroe** 

Research Technician

**Karen Nelson** 

Research Associate Tel: (902) 896-2469 Email: knelson@nsac.ca

**Todd Reid** 

Research Associate

**Margaret Savard** 

**Program Administration Officer** 

Tel: (902) 893-7256 Email: msavard@nsac.ca

Rachel Kennedy

Research Technician Tel: (902) 893-7791 Email: rkennedy@nsac.ca

Seasonal Staff

Lloyd Rector Jennifer Campbell

Graduate Students & Post Doctoral Fellows

NSAC/Dalhousie University

Mehdi Sharifi (PDF) Emily Clegg (M.Sc.) Caroline Halde (M.Sc.) Don Kerr (M.Sc.)

Justin Renkema (Ph.D.)

Sukkasini Thissaverasingan (M.Sc.)

Amanda Ward (M.Sc.) Julie Bailey (Ph.D.)

University of Guelph Kim Schneider (Ph.D.)

University of Alberta Alison Nelson (Ph.D.)

University of Manitoba Iris Vaisman (M.Sc.)

#### **OACC SPONSORS AND PARTNERS**

Note: the following sponsors include those contributing to research programs of individual OACC staff.

Canadian Agri-Science Clusters Initiative

**Growing Forward** 

Agriculture and Agri-Food Canada

Agri-Futures

Alberta Livestock Industry Development Fund

Atlantic Canadian Organic Regional Network

Canadian Wheat Board

Certified Organic Associations of British Columbia

Envirem Technologies Inc.

Home Hardware

**Homestead Organics** 

L'Abri végétal

La Jardinerie Fortier

Les Fraises de l'Île d'Orléans

Les Serres Frank Zyromski

Les Serres Jardins-Nature

Les Serres Lefort

Les Serres Nouvelles Cultures

Les Serres Sagami

Manitoba Harvest Hemp Foods and Oils

Natural Sciences and Engineering Research Council

Nature's Path

New Brunswick Agricultural Council

New Brunswick Soil and Crop Improvement Association

New Varieties Development Council

Nova Scotia Agricultural College

Ontario Sheep Marketing Agency

Organic Meadow

Prince Edward Island ADAPT Council

Production Horticoles Demers Inc.

Province of Alberta

Province of British Columbia

Province of Nova Scotia

Province of Ontario

Province of Prince Edward Island

Province of Saskatchewan

The Organic Grocer

University of Alberta

University of Guelph

University of Laval

University of Manitoba

University of Saskatchewan

Western Ag Innovations

Agriculture and Agri-Food Canada and the Growing Forward Program are pleased to participate in the production of this OACC Annual Report for 2009. AAFC is committed to working with our industry partners to increase public awareness of the importance of the agriculture and agri-food industry to Canada. Opinions expressed in this document are those of OACC and not necessarily of AAFC.