



AGRICULTURE AND FOOD SYMPOSIUM

NOVEMBER 4TH RECEPTION

NOVEMBER 5TH WORKSHOP & PANEL DISCUSSIONS



ALGOMA UNIVERSITY

A TWO DAY SYMPOSIUM AIMED AT CONNECTING
NORTHERN ONTARIO FARMERS AND RESEARCHERS
IN THE AGRICULTURAL SECTOR



RURAL AGRI-INNOVATION NETWORK (RAIN)

The Sault Ste Marie Innovation Center (SSMIC) has been working with NORDIK Institute at Algoma University and a number of community partners on the development of a Rural Agri-Innovation Network (RAIN) in Algoma District. The RAIN is a collaborative model for the delivery of projects and services that are of benefit to agricultural and agri-forestry related organizations, individuals and private sector partners.

RAIN Vision

Connect rural communities through research, knowledge transfer, innovation and marketing for maximizing the value of rural based crops, value-added products and services.

RAIN Mission

The Algoma RAIN is dedicated to the needs of agri-innovation organizations, producers, suppliers and agri-entrepreneurs in Northern Ontario; the RAIN is a collaborative organization for improved producer success and business growth.



Overview

An advisory committee has been established to steer development of a 3-year pilot project in Algoma. The objective of the Algoma RAIN is to seek improvements in Algoma's agriculture community by supporting research and other collaboration, fostering communications and delivery of crop-based information, and promoting the importance and achievements of the region's agriculture. It is also intended to serve as a framework for broader pan-northern agri-based cooperation and development for both regional and broader areas of interest.

RAIN Partners

NORDIK (Northern Ontario Research, Development, Ideas, Knowledge) Research Institute evolved from the Community Economic and Social Development program at Algoma University. NORDIK is committed to further Northern Ontario's capacity by working closely with community partners and providing mentoring to new researchers.

Sault Ste. Marie Innovation Centre promotes and assists in the development of knowledge-based industries in the Algoma District as a means to diversify the economy of the region and build a strong, stable economic base.



AGRICULTURE AND FOOD SYMPOSIUM

It is great to have you with us! Over the next two days you will hear from engaging speakers, eat delicious local food, and make connections to transform the agricultural sector in Northern Ontario.

The vision for the RAIN project has led both NORDIK Institute and the Sault Ste. Marie Innovation Centre to start the dialogue between researchers and farmers through this Symposium. At this Symposium we will be discussing a variety of topics, which a number of farmers have brought forward as areas that are important to them. Institutions at Algoma University like NORDIK and the Innovation Centre have mandates to enhance the

local economy, social well-being, and to ensure that water and land is respected.

Make sure you fill out the evaluation form at the end of the Symposium. It will help us to better assess your needs while improving the coordination of the RAIN initiative.

Did you know?

With over 2,500 farms, representing 5% of farms in Ontario, the North's industry for beef is bigger than any Atlantic province, and along with dairy, it accounts for 80 per cent of agricultural activity in the North (MNDM, 2007)

ALGOMA UNIVERSITY

The faculty, students, and staff are happy to be hosting this weekends symposium. There is a growing interest in food sustainability with The People's Garden (campus community garden), which stocks our campus food bank. NORDIK Institute and the Community Economic and Social Development (CESD) program have been contributing to the local food movement through community-based research, developing marketing tools, and coordinating the Algoma Food Network.



Algoma University is proud to have recently opened the Biosciences and Technology Convergence Centre with new student and faculty research labs. Join us on Saturday during lunch for a tour of the new facilities, which house both the Innovation Centre and the Invasive Species Research Institute.

Take a look around Ontario's newest University. We value a quality education from a truly small University.

OPENING REMARKS

Dr. Gayle Broad: "The Rural Agri-Innovation Network (RAIN), co-led by the Sault Ste. Marie Innovation Centre and NORDIK Institute, is a unique partnership in the Algoma District which brings together agricultural producers and workers with researchers, consumers and others in an effort to expand sustainable agriculture and food production. This weekend's symposium is intended to bring the RAIN partners together with researchers, policy-makers and agricultural leaders in Northern Ontario to explore the current context for enhancing sustainable agriculture and food production across the region."

Errol Caldwell: "The Rural Agri-Innovation Network is thrilled to undertake this Agriculture and Food Symposium. Discussions on the formation of the RAIN in Algoma arose from conversations during the development of the Northern Ontario Growth Plan and through grower consultations in Algoma District. Discussions at the symposium have been designed to address some of the interests and issues that have been identified in northern Ontario. The key objectives of this symposium include:

- 1) Increased awareness of northern Ontario food and fibre production and market issues
- 2) Better understanding of research underway or planned pertinent to northern Ontario
- 3) Greater grower awareness and access to researchers and expertise
- 4) Improved collaboration and networking among growers, researchers, consumers and agri-business"

AGENDA

Friday November 4

5:00 p.m. **Welcome and introductions** - Dr. Gayle Broad, Algoma University

Traditional Blessing by Elder Peter Migwans

5:15 – 6:30 p.m. **Registration and light Buffet Dinner/Mixer – Speakeasy Lounge**
A feast featuring locally-produced and traditional Anishinaabe foods

6:30 – 6:45 p.m. **Welcome and Introductions – Great West Life Amphitheatre**

Mr. Errol Caldwell moderator

- Dr. David Schantz, VP Academic and Research, Algoma University
- Prof. Rich Moccia, Associate VP Research, U. Guelph

6:45 – 7:00 p.m. **Overview of Symposium Objectives**

- “Good Food, Families and Sustainability: Engaging Communities in Food Production in Northern Ontario” - Dr. Gayle Broad, Algoma University

7:00 – 7:45 p.m. **Keynote Speaker:**

Mr. Ron Bonnett, President Canadian Federation of Agriculture (CFA) and local beef farmer – The Future of Agriculture in Northern Ontario – A View from Local and International Perspectives

Ron Bonnett is a farmer with a passion for working through organizations to help shape the future. Ron and his wife, Cathy, bought a dairy farm in Bruce Mines, which they operated until 1995; now operating a cow-calf operation. He has held the role of CFA president since June 2010.



7:45 p.m. Bio-break

8:00 p.m. – 9:30 p.m. **Policy and Programs to Grow Agricultural Capacity in the North:**

Session Moderator, Errol Caldwell, Sault Ste Marie Innovation Centre

15 minutes for each presentation with time for questions

- 1) OMAFRA Guelph Partnership – Rich Moccia
- 2) Ontario’s Resources for Agriculture and Agri-Food – Mary Ellen Norry Car, Ontario Ministry of Agriculture Food and Rural Affairs
- 3) Northern Ontario Foods and Food Systems - Dr. Connie Nelson, Lakehead U. and Food Security Research Network

9:30 p.m. Adjourn for the evening

AGENDA

Saturday November 5 (Morning)

Great West Life Amphitheatre, Algoma University

8:00 – 8:30 a.m. Breakfast in the Speakeasy Lounge featuring local maple syrup

8:30 – 9:00 a.m. Welcome and Opening Remarks: Errol Caldwell

- Brief Review of the objectives of the Rural Agriculture Innovation Network – Errol Caldwell, Sault Ste Marie Innovation Centre
- NSERC Research Partnership Opportunities – Tibor Turi – Manager, NSERC Ontario Regional Office

Panel Presentations and Discussions

There will be three, fifteen - minute presentations in each session, with 15 minutes at the end for discussion and questions

9:00 – 10:00 a.m. Sustaining Soil and Crop Productivity – Session Moderator, Dr. Rene Van Acker, U. Guelph

- 1) What About Soil Health? How Can Soil Microorganisms Affect Soil and Crop Productivity? – Dr. Kari Dunfield, U. of Guelph
- 2) Manipulating the Soil Microbial Community for Better Yield and Food Quality – Dr. Pedro Antunes
- 3) Managing Manure Nitrogen to Maximize Agronomic use and Minimize Loss to the Environment – Dr. John Lauzon, U. Guelph

10:00 – 11:00 a.m. Crop Trials With Reference to Northern Ontario – Session Moderator, Dr. Rene Van Acker, U. of Guelph

- 1) U. Guelph Crop Research in Northern Ontario – John Rowsell, Ontario Agricultural College
- 2) Thunder Bay Agricultural Research Station – Dr. Tarlok Sahota
- 3) New Crop Varieties for a “Northern” Climate – Dr. Duane Falk, cereal breeder

11:00 – 11:15 a.m. Bio-break

11:15 a.m. – 12:15 p.m. Specialty Foods and Value-Added Products – Session Moderator, Dr. Gayle Broad, Algoma University

- 1) Non Timber Forest Products; Forests Valued in a New Way – Northeast Superior Community Forest – Clara Lauziere
- 2) Apiculture – Pollination Services; A Unique Challenge – Les Eccles, Ontario Beekeepers’ Association
- 3) Artisan Cheese – Establishment and Production Challenges and Opportunities – Ruth Klahsen, Monforte Dairy

12:15 – 1:30 p.m.

Buffet Style Lunch featuring locally grown produce

Buffet to be served in the Foyer of the new Biosciences and Technology Convergence Centre at Algoma University. **Tours will be provided of the BSTCC at 12:45**

AGENDA

Saturday November 5 (Afternoon)

1:30 p.m. – 2:30 p.m. Livestock Production in Northern Ontario – Session Moderator, Gayle Broad, NORDIK Institute

- 1) Forage Finishing Beef Cattle in Northern Ontario – Ira Mandell U. of Guelph
- 2) Penokean Hills Farms – Katie Filion
- 3) Sheep and Goat Production and Report on Algoma Research – David Thompson, NORDIK Institute

2:30 – 3:30 p.m. - Healthy Food for Sustainable Communities – Session Moderator, David Thompson, NORDIK Institute:

- 1) Food Tundra: Access to Healthy Food In Sault Ste Marie – Dr. Nairne Cameron, Algoma U.
- 2) Algoma Food Network – Meeting Local Market Demands – Birgit Kroll
- 3) The North American Urban Agriculture Movement – Dr. Karen Landman, U. of Guelph

3:30 p.m. – 3:45 p.m. Bio-Break

3:45 – 4:45 p.m. Other Challenges and Opportunities – Session Moderator Errol Caldwell, Sault Ste Marie Innovation Centre

- 1) Farming for and by First Nations – Jamie Hall, Indian Agricultural Program of Ontario
- 2) Aquaculture R&D– Prof. Rich Moccia U. of Guelph
- 3) Challenges in Building and Expanding an Aquaculture Business – Mike Meeker

4:45 – 5:00 p.m. Closing Remarks, recognition of Sponsors, Speakers, and Adjournment of Symposium

KEYNOTE SPEAKER

Ron Bonnett, President of the Canadian Federation of Agriculture (CFA), has had a long and varied career in agriculture. In the mid-1980s, Ron became the founding president of the Algoma Federation of Agriculture, where he helped combat high interest rates. He also served as councilor and reeve of the Township of Plummer where he advocated for rural economic development and a strong agriculture sector.

In 1997, Ron sat on the provincial board of directors for the Ontario Federation of Agriculture (OFA) and OFA executive. He was the OFA Vice-President for two years, and also served as the OFA President for four years. During his time with OFA, Ron sat on the CFA National Council and CFA executive, before becoming 2nd Vice-President in February 2007. He has held the role of CFA President since June 2010.

He is currently CFA's representative for Health



Canada's Pest Management Regulatory Agency (PMRA) Advisory Committee and Canadian Agricultural Human Resource Council (CAHRC). As an advocate of agriculture at the international level, Ron sits on the Board of Directors for the World Farmers' Organization as the North American representative and played a lead role in the development of the organization, acting as interim President. In addition to his work at CFA, he is also the current President of Beef Improvement Ontario and planning committee chair for Ontario's Agricultural Management Institute.

OPENING SPEAKERS

Good Food, Families and Sustainability: Engaging Communities in Food Production in Northern Ontario

Musicians have variously described Northern Ontario as a place of “rocks and trees, and trees and rocks” and the black fly capital of the world populated by hard-working, hard-living men who work underground in the mines or as lumberjacks – with women curiously absent. None of these descriptions appear conducive to farming families contributing to the region’s sustainability through food production and a cooperative culture. This forum is designed to explore how farming in the North can become a more sustainable way of life, employing both new scientific methods and exploring real-life examples, based on principles of knowledge-sharing, cooperative efforts, and a commitment to regional self-reliance.



Dr. Gayle Broad: A lifelong resident of Northern Ontario, Gayle’s background includes twenty-five years in community economic and social development, and an in-depth knowledge of resource-dependency and its impact on people and the environment. Some of Gayle’s recent research has been on the social economy in Northern Ontario; family farms in the Algoma region; strategic planning and community engagement with First Nations, and a participatory action research project with rural peoples in Colombia. Dr. Gayle Broad is an Associate Professor in the Community Economic and Social Development (CESD) program at Algoma University and the Research Director of NORDIK.

Overview and objectives of the RAIN

At the Sault Ste Marie Innovation Center (SSMIC), Errol has been working with NORDIK Institute at Algoma University and a number of community partners on the development of a Rural Agri-Innovation Network in Algoma District. The RAIN is a collaborative model for the delivery of projects and services that are of benefit to agricultural and agri-forestry related organizations, individuals and private sector partners. The objective of the Algoma RAIN is to seek improvements in Algoma’s agriculture community by supporting research and other collaboration, fostering communications and delivery of crop-based information, and promoting the importance and achievements of the region’s agriculture.



Mr. Errol Caldwell has a Masters of Science degree in entomology from the University of Guelph. He has over 32 years experience with a number of federal science based departments including the Canadian Forest Service in Sault Ste Marie. From January 2005, Mr. Caldwell established and directed a life sciences convergence and commercialization organization located in Sault Ste Marie called Science Enterprise Algoma which merged with the Sault Ste Marie Innovation Centre in 2009 where he is currently Research Director. Key projects have included development of a Centre for Invasive Species in Sault Ste Marie as well as establishment of the Invasive Species Research Institute at Algoma University; community lead in advancing the bio-economy through value-added use of sustainable biomass.

Policy and Programs to Grow Agricultural Capacity in the North

Ontario’s Resources for Agriculture and Agri-Food

The Ontario Government supports the development, growth and diversification of the agriculture, aquaculture and food processing industry through a number of programs, resources and policies. A high level overview of these initiatives will be discussed, including the framework for this sector as outlined in the Northern Ontario Growth Plan.

The roles and responsibilities of employees with the Ministries of Agriculture, Food and Rural Affairs (OMA-FRA) and Northern Development,

Mines and Forestry (MNDMF) which are specific to the agriculture and agri-food industry will also be highlighted.

Mary Ellen Norry Car is a graduate of the University of Guelph and is proud to have worked with the Ontario Public Service for more than 20 years. Her passion for and commitment to strong rural communities and a sustainable agriculture and food industry are key priorities that have dominated her career path and the positions that she has held with the Ministries of Agriculture, Food and Rural Affairs and Northern Development, Mines and Forestry. Her belief in helping oth-



ers to help themselves is central to the work and the approach that she utilizes on both a professional and volunteer basis. Mary Ellen is the Regional Manager – North Region with the Ministry of Agriculture, Food and Rural Affairs and has been in this position since 2006.

Northern Ontario Foods and Food Systems

The Food Security Research Network provides examples of how they have enhanced agriculture capacity in North-western Ontario. Focus is placed on sustainable, long-term activities such as local food production, processing, distribution channels and value chains while providing opportunities to simultaneously address social justice and social economy approaches. The work of FSRN is guided by the food security engagement model that is based on complex systems theory and the Contextual Fluidity Partnership model, which is an adaptation of complex systems theory to community capacity building. The outcome of FSRN activities aims to create a more resilient local food system.

Dr. Connie Nelson is the Director of the Food Security Research Network at Lakehead University, Thunder Bay,. She has provided extensive leadership and support in the development of a resilient local food system in Northwestern Ontario through supporting

faculty in launching food security community service learning courses and through various socio-economic initiatives including growth in Community Supported Agriculture, the first local flour mill, and investigation of a small scale poultry abattoir. The FSRN is acknowledged as a catalyst for promoting agriculture and food security in the region – which has indirectly helped to support the growth of farm operations and other agri-related initiatives that have a specific focus on promoting local food production and consumption.



A Partnership in Progress: The OMAFRA- UG Agreement

In its articles of incorporation, the University of Guelph is committed to deliver on a broad portfolio of agrifood education and research. In a long-standing partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs, the UG has developed a complex and sophisticated suite of programs to deliver on this mission. These programs include research capacity across seven thematic areas, as well as other programs with an emphasis on HQP development, knowledge translation and transfer, veterinary clinical training, and analytical laboratories specializing in animal health and agrifood product testing. This presentation will profile the successful partnership between the UG and OMAFRA, and highlight potential areas for collaborative research relevant to northern Ontario.

Prof. Rich Moccia currently holds both research and senior executive cross-appointments at the University of

Guelph, where he has been employed since 1987. He is the Associate Vice-President of Research for the Agrifood and Part-

nerships portfolio, as well as the Associate Vice-President for Research Services. Rich is also a Professor of aquatic and fisheries science in the Department of Animal and Poultry Sciences, with his research and teaching activities focusing on aquatic animal production systems and related ecosystem impacts. His role also encompasses strategic management of the university's Business Development Office, Animal Care Services, Research Communications, and the Research Contracts and Grants unit.



Tibor Turi, Manager, NSERC Ontario Regional Office; NSERC Research Partnership Opportunities

NSERC aims to make Canada a country of discoverers and innovators for the benefit of all Canadians. The agency supports university students in their advanced studies, promotes and supports discovery research, and fosters innovation by encouraging Canadian companies to participate and invest in postsecondary research projects. NSERC researchers are on the vanguard of science, building on Canada's long tradition of scientific excellence. NSERC fosters innovation through a

variety of funding opportunities for industry-academic collaborative research by connecting and applying the strengths of the academic research system to private sector companies. With its established network of five Regional Offices across the country, NSERC has developed a local presence to facilitate access to NSERC programs. The mandate for the Regional Offices is to focus on NSERC's goal to connect and apply the strengths of the academic research system to build prosperity for Canada. This presentation will focus on the various Research Partnership Opportunities available for industry-academic research collaborations.

PANEL PRESENTATIONS AND DISCUSSIONS

Sustaining Soil and Crop Productivity

What About Soil Health: How Can Soil Microorganisms Affect Soil & Crop Productivity

Soil microorganisms play a vital role in many important ecosystem functions that influence soil and crop productivity. Kari will provide a brief overview of how soil communities respond to crop management strategies and present the results of research studies conducted at the Elora Research Station at the University of Guelph examining the diversity of soil microbial communities under different agricultural systems. The research focuses on assessing microbial communities involved in nitrogen and carbon cycling and measuring soil carbon pools in order to determine how crop rotation and biomass removal may impact long term soil functions.



Our results complement current efforts that are underway to predict the environmental footprint of these agricultural cropping systems.

Dr. Kari E. Dunfield is an Associate Professor in Applied Soil Ecology in the School of Environmental Sciences at the University of Guelph. She holds a BSc in Microbiology from the University of Calgary (1995), a MSc in Plant Science (1999) and a PhD in Soil Science (2002) from the University of Saskatchewan. Her research uses DNA based techniques to characterize soil microbial communities, and study microbially mediated soil processes. Her research program focuses on the impact of agricultural practices on the diversity of soil microbial communities, and on source water quality.

Manipulating the Soil Microbial Community for Better Yield and Food Quality

Nutrient levels of food crops have significantly decreased in the past 50 years in Europe and North America. There is evidence suggesting that such reduction in nutritional value is caused by intensive agricultural management and/or plant breeding practices, which have focused almost exclusively on yield. Further, recent studies indicate that organic farming practices may result in crops with higher nutrient content. It is not clear why organic farming may produce more nutritious food; one idea is that organic practices increase biological activity in soils, which promote higher nutrient content in the crops, but this link has not been clearly demonstrated.



How can soils be managed to take full advantage of the soil's biota capacity to increase food quality? Can this be done without compromising high yields needed to support an ever-increasing human population? I will address these questions by dissecting how the biological activity in soil is crucial to the nutrient value of crops. Using ecological theory, I will also explore how rhizosphere dwelling microbes can be manipulated to improve the nutrient value of food crops.

Dr. Pedro M. Antunes is an Associate Professor in the department of Biology at Algoma University and the Ontario Ministry of Natural Resources Research Chair in Invasive Species Biology. His research focuses on the roles that soil dwelling organisms play in either reducing or enhancing plant growth, nutrition and fitness in natural and managed ecosystems. For more information on Antunes visit his lab website at <http://people.auc.ca/antunes/>

Managing Manure Nitrogen to Maximize Agronomic use and Minimize Loss to the Environment

In Ontario, there is approximately the same amount of manure nitrogen produced each year as fertilizer nitrogen sales in the province. As such, manure nitrogen is a large economic asset, if managed properly, and due to the many ways nitrogen can be lost from the soil, a potential environment contaminant if not managed properly. This presentation will explore various best management practices to minimize loss to the environment and maximize plant nitrogen availability. The impacts differing manure properties has on the choice of best management practices will also be discussed.



John Lauzon has been a professor at, University of Guelph since 2000. His current research interests focus mainly on the evaluation of manure management strategies to decrease transport of nutrients and bacteria to the environment and improve the agronomic availability of the nutrients. Other research has focused on various aspects of soil fertility management including; the evaluation of the spatial/temporal variability of soil nutrients and plant response; agronomic evaluation of fertilizer management strategies.

PANEL PRESENTATIONS AND DISCUSSIONS

Crop Trials with Reference to Northern Ontario

U. Guelph Crop Research in Northern Ontario

The University of Guelph operates two research stations in Northern Ontario. The New Liskeard Agricultural Research Station (NLARS) consists of 660 acres and has programs in beef, field crops and horticulture. Field crop research involves development, registration, recommendation and production agronomy trials with cereals, forages, oilseeds.

The horticulture program at NLARS has looked at cool season vegetables, climate modification using mulches, floating row covers and tunnels and crops that have distinct advantages in the north such as parthenocarpic cucumbers. Current research involves dayneutral strawberry, and



summer and fall bearing raspberry production in the field and under protected culture systems such as high tunnels. High tunnels modify the environment on a field scale and extend the growing season in the spring and fall.

John Rowsell is the head of the Northern Stations, University of Guelph. He holds bachelors and masters degrees from the University of Guelph majoring in Soil Science. He taught at New Liskeard College of Agricultural Technology from 1979 to 1994 and has conducted research at New Liskeard since 1981. His current projects include perennial grasses for biomass production, hybrid poplar production, nitrogen and sulfur nutrition of canola, biochar as a soil amendment, SMART Cereals, cultivar development and evaluation in oat, barley, wheat, forage legumes and grasses, and crop diversification for the north.

Thunder Bay Agricultural Research Station

Thunder Bay Agricultural Research Station (TBARS) is committed to the establishment, operation, promotion and transfer of agricultural research for the further development and diversification of the agricultural industry. With limited funds and a small staff, TBARS has done a tremendous job of generating and disseminating an enormous amount of agronomic information both to the scientific and the farming communities locally, regionally, provincially, nationally and internationally. Development oriented research and extension activities of TBARS, together with Food Security Research Network and farm organizations, have established/promoted some new small scale commer-



cial activities such as a soybean roasting plant, a fertilizer blending plant and a stone grinding mill in the area.

Dr. Tarlok Sahota CCA is originally from a family farm, with a Ph.D. in Agronomy and 30 years of experience in agricultural research, extension and development worldwide. Tarlok has made a significant impact on farms by introducing new crops/crop varieties and beneficial nutrient management practices. Tarlok is a member of the Ontario Forage Crops Committee, Thunder Bay Soil and Crop Improvement Association, and American Society of Agronomy and an Eastern Director of the Canadian Society of Agronomy. He had developed over 10,000 acres under contract mint farming for AM Todd Company USA and has managed large scale commercial farms, including a fresh produce export project. Tarlok has been managing the research station at Thunder Bay since 2004.

New Crop Varieties for a Northern Climate

Dr. Duane Falk grew up in cattle ranching and grain farming region of Montana. Obtained BSc in Crop Science and MSc in Agronomy from Montana State University. Immigrated to Canada in 1977, and entered PhD program in cytogenetics/breeding at University of Guelph on haploidy associated with interspecific crosses in wheat. Following completion of PhD, went to New Zealand to lead doubled haploid barley breeding program. Returned to University of Guelph in 1986 as barley and oat breeder. Has since produced three varieties of oats, one variety of



winter barley, and thirty-six varieties of spring barley, as well as supervising a number of graduate students presently involved in private and public plant breeding and research. Has developed the Recurrent Introgressive Population Enrichment (RIPE) breeding system which integrates germplasm development with elite line improvement through accelerated generation advance and effective early generation line evaluation to give superior new varieties at a faster rate than traditional breeding programs. Current research is focused on applying evolution and population breeding theory to improving barley and wheat crops for Ontario grain and livestock producers.

PANEL PRESENTATIONS AND DISCUSSIONS

Specialty Foods and Value-added products

Non Timber Forest Products; Forests Valued in a New Way

As the economic climate surrounding the forest as a resource declined at a dramatic rate in the past decade, there has been a need to look at the forest in a new way. From tree top to forest floor, there are many values and products that can generate economic wealth and can assist the existing forest sector offset costs of operations.

Topics to be discussed range from blueberry farming, to beekeeping, to First Nation made authentic crafts, there is a tremendous amount of potential in the forest. Over the past several years the NSFC has been focusing efforts on identifying opportunities that link our Northeast Superior resources with emerging markets, entrepreneurship train-



ing in partnership with Royal Roads University to teach potential small business owners and the development of a regional cooperative whereby a new brand can be developed for authentic Northeast Superior products. All of these activities are complementary and provide the tools to build a long term, sustainable industry in the Northeast Superior Region.

Clara Lauziere, the General Manager of the Northeast Superior Forest Community has been an advocate of regional development and collaborative engagement as a strategy to help communities respond to the changing forest economy. With a background in Policy and Administration at the Undergrad and Masters level, Clara has spent 10 years in Northern Ontario community economic development and the past 4 years in the Northeast Superior Region, helping build a regional development organization that focuses on the forest sector.

Apiculture - Pollination Services; A Unique Challenge

The Beekeeping industry has now has 5 years of high honey bee colony losses. Research by the Ontario Beekeepers Association Tech Transfer Program and the University of Guelph has helped to identify the major causes of high colony mortality and the management strategies that need to be adopted in order to curb this disaster. Recovering from diminishing honey bee numbers has presented challenges not only to beekeepers, but also the agri-food industry as a whole, by reducing the



number of honey bee colonies available to provide essential pollination services; which is valued at approximately \$ 2 billion in Canada.

Les Eccles started his agricultural career on a dairy and beef operation, managing a 125 head dairy and beef herd, which included crop management, nutrition, and a genetic program. Les's educational background includes both a Diploma in Agriculture from the Ontario Agricultural College and a Bachelor of Science in Agriculture from the University of Guelph. Les developed his interest in beekeeping and research at the University of Guelph Apiculture Research Centre with Paul Kelly and Ernesto Guzman, and has been instrumental in various research projects and presentations.

Artisan Cheese - Establishment, Production Challenges and Opportunities

Ruth Klahsen is the owner and lead cheesemaker of Monforte. She is a veteran chef whose cuisine is well-known to patrons of Stratford's stellar restaurants Rundles and the Old Prune. A graduate of the inaugural class of '83 at the Stratford Chefs School, Ruth is past chef at the Stratford Festival's Green Room restaurant, simultaneously teaching at the Chefs School. Of Mennonite descent herself, Ruth is the mother of three sons, Ben, Christian and Daniel.

Ruth was recently honoured at the Stratford Optimism Place 10th Annual Women of the Year Awards. She won the 2008 Women in Agriculture Award in recognition of her innovative role as a cheesemaker and entrepreneur. The presenter said that Ruth shows a "deep love of her craft, one which is especially suited to women," and that "she has shaken our notion of what great cheese is."

Abstract: In this session Ruth will be sharing the opportunities and challenges with establishing an artisan cheese operation in Stratford, Ontario.



PANEL PRESENTATIONS AND DISCUSSIONS

Livestock Production in Northern Ontario

Forage Finishing Beef Cattle in Northern Ontario

Abstract: Forage finishing is becoming more popular for beef producers as it can dramatically increase returns for cattle versus conventional grain feeding and marketing of commodity beef. Consumers will often pay a premium for forage finished beef due to lower fat content and better fatty acid composition in forage-finished versus grain-fed beef, and consumer perceptions about how forage-finished cattle are produced. The current study examines how the 3 methods of forage finishing affect growth performance, carcass composition, eating quality, and nutrient composition of beef, and how these traits compare to conventional grain finished beef.



Ira Mandell is an Associate Professor in the Department of Animal & Poultry Science, University of Guelph. His research interests include beef cattle nutrition and meat science, with work in the latter including all red meat species focusing on diet, management, or postmortem processing treatments to improve eating quality (tenderness, juiciness, flavor). Dr. Mandell has conducted extensive work on forage finishing, examining how exclusive use of forages in beef cattle diets affects carcass and meat quality traits as well as influencing nutrient composition. Ira teaches farm animal anatomy and animal nutrition courses to undergraduates at the U of G and serves as the faculty advisor for the Animal Biology Program.

Penokean Hills Farms: Research and Marketing Initiatives for a group of Northern Ontario Beef Producers

Penokean Hills Farms is a group of beef producers located in the Algoma region of Northern Ontario. Penokean Hills Farms produces quality, local, hormone- and antibiotic-free beef raised on member farms throughout the region. Their mission is to produce the highest standard of tasty, nutritious beef, while enhancing the environment and supporting the local community. Katie Filion, the current intern working with Penokean Hills Farms, will provide a brief history of the company, and discuss marketing initiatives for improving sales and brand recognition in the Algoma community.

Katie Filion is currently an intern working with Penokean Hills Farms. The internship aims to improve marketing for Penokean Hills Farms, including increasing sales, expanding point-of-sale locations, and developing contracts with restaurants. Katie has a BSc. in Food Science from the University of Guelph, and a MSc. in Food Safety Communications from Kansas State University. Her interests include agriculture and risk communications.



Sheep and Goat Market Research in Algoma District

In late 2010, the Algoma Sheep and Lamb Producers Association requested NORDIK Institute to investigate the value chain and market for lamb and chevon products in the Algoma District. The marketing study included multiple data collection methods to determine the capacity of current Algoma lamb and chevon producers to serve the market; and determine consumer preferences surrounding lamb and chevon in Algoma. In this presentation, David will present survey findings and further analysis on value chain development for local lamb and chevon products.



David Thompson is an MBA in Community Economic Development (CED) candidate of Cape Breton University. For four years, David has worked with NORDIK Institute, a community-based research organization at Algoma University in Sault Ste. Marie where he has been involved with several agri-food research projects, developing business plans, marketing tools, and market research for agri-food co-ops, non-profits and producer groups in Algoma District. Currently David is completing a Major Research Project entitled "Expanding locally sourced beef in Northern Ontario through the co-operative model" for the MBA in CED program.

PANEL PRESENTATIONS AND DISCUSSIONS

Food for Sustainable Communities

Food Tundra: Access to Healthy Food in Sault Ste. Marie

Accessibility to healthy and fresh food supports the health of urban residents. By contrast, poor access may increase the risk of malnutrition or obesity, especially among vulnerable populations. Food access research has been mainly focussed on larger cities, and there has been less attention devoted to smaller cities. This study examines driving and walking access to healthy food in supermarkets and other food retailers in Sault Ste. Marie - a medium sized Canadian city. Accessibility from small neighbourhood units (Dissemination Areas) to healthy food sources was modelled using a gravity approach facilitated by a



Geographic Information System (GIS). Analysis results reveal pockets of poorer access to supermarkets, particularly for seniors and low-income residents.

Dr. Nairne Cameron is an Assistant Professor of Geography at Algoma University and an Adjunct Assistant Professor in the Centre for Health Promotion Studies and School of Public Health at the University of Alberta. Her teaching and research interests include urban and regional development, health geography, spatial analysis and geographic information systems (GIS), comparative studies, and transportation geography. Recently, her research has focused on spatial patterns of food access and legal restrictions blocking supermarket operations in urban neighbourhoods.

Algoma Food Network - Meeting Local Market Demands

In this session, Birgit will explore the past present and future of the local food movement in Algoma District. Birgit will explore her perspective of a small business owner that relies on local food, which adds significant value to her bottom line. Meeting local market demands is complex, relational, and constantly in flux. Birgit will also explore how the Algoma Food Network as a network that brings about change. Ensuring a growing demand for local food depends on



networks of collaboration between institutions, business, non-profits, and farmers.

Birgit Kroll, vice-chair of Algoma Food Network and owner of Sault Personal Fit, a meal replacement catering business. Since 2007, Birgit has co-coordinated the Algoma Food Network in collaboration with NORDIK Institute. The mission of the Algoma Food Network is building and supporting an autonomous, sustainable, healthy, local food system that is accessible to all; through education, advocacy, action, and relationship building.

The North American Urban Agriculture Movement

While urban agriculture is as old as human settlement, it is an activity that seems to have largely vanished from living memory in North American cities. This is now a quickly changing movement, with an exponential growth in urban agriculture activity in the last decade. Some of the benefits that can accrue from urban agriculture are reduced greenhouse gas emissions from lower transportation distances; increased local economic activity; enhanced social relationships between producer and consumer; and waste recycling.

In North America, the urban agriculture movement has been largely ad hoc and grassroots-driven. Increasingly,



North American cities are beginning to write policies to accommodate food production in the urban landscape. The urban location of food production is an important distinguishing feature; however, it is the interaction with the social, economic and ecological systems of the immediate urban centre that fully separates urban agriculture from simply growing food in the urban environment.

This presentation will provide an overview of the pattern that is emerging in this movement, as well as some of the goals of urban agriculture, with a particular focus on social justice and community development.

Dr. Karen Landman Associate Professor - Landscape Architecture School of Environmental Design and Rural Development University of Guelph. Karen's background is in horticulture, landscape architecture, planning and geography.

PANEL PRESENTATIONS AND DISCUSSIONS

Other Challenges and Opportunities

Farming for and by First Nations

Jamie Hall, Indian Agricultural Program of Ontario

The Indian Agriculture Program of Ontario (IAPO) provides Agricultural financing, extension and advisory services to First Nations members. Since 1984 IAPO has provided over \$50 million in loans and provided business development support to over 300 clients. With offices in Stirling and Lambeth, under the direction of a First Nations Board of Directors, General Manager Jamie Hall is responsible for management of operations. Mr. Hall, a graduate of the University of Guelph where he studied Agriculture Economics.



Challenges in Building and Expanding an Aquaculture Business

Meeker's Aquaculture is owned and operated by Mike and Sharon Meeker for over 25 years.

Unique to Ontario cage farms, the Meeker family own and make their home on the property directly adjacent to the cages on Lake Wolsey in Evansville. This was the first commercial cage culture farm on Manitoulin Island. Mike is always learning and experimenting new ways to be environmentally aware and reduce the wastes associated with aquaculture. Mike won the 2008 & 2010 Premiers Award for Agri-Food Innovation Excellence.



Aquaculture Research and Development

The supply of seafood to the world's consumer has rapidly transitioned from a strategy based on hunting and gathering, to one utilizing intensive, farm based technologies. Aquatic 'farming', or aquaculture, now provides over 50% of the global demand for seafood products. The aquaculture industry has been the fastest growing sector of the agrifood sector for nearly the last 2 decades, creating food, new jobs and economic wealth in many regions around the globe. This rapid growth has also raised legitimate concerns about the stewardship of our aquatic and fishery resources, and the sustainability of current production technologies has



been questioned. This seminar will look at the global evolution of the aquaculture industry and will highlight various assets and challenges associated with the sector, spanning social, political, biological, economic and environmental issues.

Rich Moccia currently holds both research and senior executive cross-appointments at the University of Guelph, where he has been employed since 1987. He is the Associate Vice-President of Research for the Agrifood and Partnerships portfolio, as well as the Associate Vice-President for Research Services. Rich is also a Professor of aquatic and fisheries science in the Department of Animal and Poultry Sciences, with his research and teaching activities focusing on aquatic animal production systems and related ecosystem impacts.

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