

# CASE STUDY: RURAL AGRI-INNOVATION NETWORK

*Contributions to the emergence  
of the Northern Ontario resilient  
and connected food hub*

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## Rural Agri-Innovation Network (RAIN)

### Social Innovation

- RAIN has a place-based focus that builds initiatives appropriate to the diversity and uniqueness of their specific Northern Ontarian agricultural region;
- RAIN operates as a three-year pilot project in the Algoma District (2013 - 2016);
- RAIN endorses a pan-Northern approach to agriculture that respects the diversity of northern local food systems while being a catalyst for events that build connectedness and networking across the local food system landscape in Northern Ontario;
- RAIN's collaboration with First Nations communities is at the pre-feasibility stage to create a CFIA certified Wild Foods Processing Centre for mushrooms, fiddle heads, berries, cedar jelly, and maple syrup.

### Overview

RAIN emerged from an idea of Errol Caldwell, Director of the Sault Ste. Marie Innovation Centre (SSMIC), to expand agricultural opportunities in the area. The idea gained traction through consultations with a variety of stakeholders involved in creating the Northern Growth Plan. In the final plan, agriculture was identified as an area with substantive possibilities that matched four of the Growth Plan's major priorities: economic development, infrastructure investment, labour market and land use.

Alongside this was a supportive demographic trend seeing increasing numbers of new farmers migrating to the Algoma Region in the early 2000's, as a result of limited farm expansion and increasing farm prices in southern Ontario. This has resulted in some of the traditional, yet underutilized, local agricultural land becoming attended and revived. A growing "buy local" movement is quickly creating a healthy resurgence and return of farming within Algoma District.

Both the SSMIC and Gayle Broad, Director of the NORDIK Institute, played a lead role in gaining farmer, municipal, and private sector support and successfully achieving three-year pilot funding from NOHFC, FedNor and the Trillium Foundation starting in 2013. RAIN is led by co-chairs from the Sault Ste. Marie Innovation Centre (SSMIC) and NORDIK Institute, with a partner-based

Advisory Committee and a complement of staff who carry out coordinator, research and specialty skills.

RAIN's vision is to connect rural communities through five pillars: research, knowledge transfer, innovation, value chain marketing, and value-added products and services. RAIN places priority on agri-innovations and agri-entrepreneurs for improved producer success and business growth.

Selected examples of how RAIN has addressed these five pillars include:

- Administering Sustainable Northern Agriculture Program (SNAP) funding for 45 projects across Northern Ontario for a total of \$240,000 in grant funding for farms and farm businesses. Examples of projects include: greenhouse infrastructure, an industrial mixer for an artisan baker, and fruit canning equipment for a blueberry producer.
- Development of a permanent crop applied research site in Thessalon.
- Conducting research on cropping systems suitable for cash and specialty crops in Northern Ontario.
- Land and environmental improvement projects like the tile drainage project and small scale lot trials testing new crop varieties and soil amendments and fertilizers.
- Building relationships and networks among producers, businesses, researchers and RAIN staff to facilitate local food system growth.
- Strengthening, through market research studies, local branding for farming initiatives such as Penokean Hills Farms.
- Holding workshops and on-farm training focused on identification of diseases and pests and their life cycles, integrated pest management (IPM), and soil testing and management.

RAIN has office space within the Sault Ste. Marie Innovation Centre. They have a small research facility location for their mobile agricultural equipment.

## **Impact & Benefits**

RAIN focuses on business growth and improved capacity for agricultural producers. Specific activities include new rural based crops, commodities, value-added farm products and services in the Algoma Region.

RAIN has a visible and substantive impact on networking for improved research collaboration, technology transfer and building a food distribution system. For example, Cloverbelt Local Food Coop presented their model for an on-line food distribution system at their Sault Area Food Summit in 2014. Additionally, Northeast Community Network, Clover Valley Farmers' Market, Eat Local Sudbury and RAIN have collaborated on the Sustainable New Agri-Food Products (SNAP) Program, a micro-grant program for new food and agricultural products.

RAIN's involvement in building soil health in the region is very innovative for the local agricultural sector. Building soil health is one of the research priorities and includes practices such as rotational grazing and no-till methods. Helping producers to grow capacity on an individual farm basis can strengthen the base of the agricultural sector and allow the region to grow its food production capabilities. RAIN provides the administrative support and on-farm facilitation of this process.

Moreover, RAIN's crop trial facility works in collaboration with the other three Northern Ontario research stations to coordinate efforts and provide support and data exchange that can supply much needed information for the Algoma District. Director Caldwell explains, "... we're really keen on working with everyone in a pan-northern sense to move the yardsticks forward for Northern Ontario."

The research at the crop trial facility on appropriate applications for tile drainage, appropriate fertilizer and soil amendment regimes, pasture trials and research on various grazing and foraging systems are then transferred to farm production operations where the application of this knowledge transfer can reduce economic risk for the producer.

RAIN demonstrates the need for more diversified agriculture research in the North given the high capriciousness of glacial remnant soil types and conditions and niche ecological climate variability. For example, RAIN is working to bring about change in the local food system via:

- 1) Helping farmers start-up;
- 2) Helping to diversify crops and expand/increase farm utilization;
- 3) Connecting and building relationships.

*Northern districts all share some common goals and needs, but each is a little different in terms of its agricultural focus and current activities. We are focusing on the needs of Algoma's producers, while partnering and sharing information with our northern counterparts. (Errol Caldwell, Research Director, Sault Ste. Marie Innovation Centre and RAIN Co-Chair.)*

RAIN provides an essential supportive/facilitator role to growing the agricultural sector in Algoma through working with local producers to try new ideas or innovations to increase productivity.

## Opportunities for Growth

According to OMAFRA, (OMAFRA Statistics – Northern Ontario and Algoma District, 2011), there are lots of opportunities to grow agriculture in the region including:

- Horticulture crops, especially cool weather crops such as cabbage and cauliflower;
- Organic farming including vegetables, meat/meat by-products, and grain crops;
- New varieties suited for Northern production such as canola, soybeans, corn, durum wheat and some winter wheat varieties;
- Pick-your-own operations such as strawberries, raspberries, and vegetables;
- Aquaculture production and processing.

RAIN also identifies some niche markets (lamb, rabbit), and the need for more value-added processing and capabilities in the region.

In the Algoma Region there are opportunities to shop at four area Markets or direct from farm-gate. There are currently four different Farmers Markets in the area, and a growing number of small agri-based business start-ups. If the current pace continues, Algoma District anticipates a much more robust agricultural sector within the next few years. With greater production, the demand for local food will also grow.

Further, there is lots of interest and support for local food from local restaurants and institutions like Algoma University, the hospital, long-term care facilities, and schools. RAIN acts as the liaison to connect producers with buyers. RAIN helps facilitate relationships. RAIN also supports producers to understand and obtain food safety regulatory requirements (i.e. Good Agricultural Practices/GAP) so they can service these institutional sectors.

## Challenges and Limitations

RAIN is a huge catalyst for building the knowledge base and infrastructure that is essential for a resilient local food system. RAIN is neither a point-of-sales, nor a distribution system for the northern local food system. RAIN has proven the necessity for a champion catalyst for northern food system development. Yet it remains an almost insurmountable challenge to sustain funding given the recent closure of several provincial research stations. Algoma District has never had a government run provincial agriculture research station. Currently, there are partially funded research stations in Emo and Thunder Bay (over 800 km from SSM), and a few crop trials research funded by externally funded federal and provincial research projects.

Ease of accessing locally grown products is still in development in Algoma. There is no Co-op or consistent distributor outlet for locally grown/produced products. RAIN would like to see a fully functioning food hub in the Algoma District and is trying to provide the support and leadership to make it a reality.

Significant investments are still needed to support a value food chain from producer to processor to distributor, and finally, to the customer. RAIN plays an active facilitator role for producers, and is beginning to be involved in the bigger food distribution and retail landscapes.

## Visions for the Future

RAIN plans to continue its advocacy for the economic benefits of local food system infrastructure improvements including grain elevator storage, vegetable and fruit cold storage and processing facilities for cash crops.

RAIN views farmer and youth attraction and retention to agriculture initiatives as a key stabilizer in building more local food system capacity. It is critical that programs be established and expanded to support the growth in momentum, so that farming becomes a lucrative business to not only attract investment, but also assist young people seeking to be farmers to carry on this essential profession. ([www.rainalgoma.ca](http://www.rainalgoma.ca))

Many of the current successes require further growth such as increased agricultural research for new crops and livestock diversification from a Northern perspective, increased market accessibility, value chain opportunities for business diversification, and growth and enhancing local food sovereignty through more connections with local food networks and consumers.

A key priority is developing an entrepreneurial and innovative plan for sustaining RAIN long term. The agriculture component to the Growth Plan for Northern

Ontario, announced in 2011, was a catalyst in receiving the three year pilot funding. However, Caldwell explained, *there are no concrete agriculture programs that have yet to develop out of the Growth Plan*. In spite of the enhanced consumer demand for local food initiatives, Caldwell is concerned about how localized northern food production will fare as a priority with government funders.

RAIN would like to see a fully functioning food hub in the Algoma district and is trying to provide the support and leadership to make it a reality. From the RAIN website: *There are many and diverse opportunities in the sector* provided there are infrastructure upgrades, such as drainage improvements and storage, along with marketing assistance to support local farmers. It is critical that programs be established and expanded to support the growth in momentum, so that farming becomes a lucrative business to not only attract investment, but also assist young people seeking to be farmers to carry on this essential profession.

As there are limited food distributor locations, RAIN needs to find the best approach to providing infrastructure supports to on and off-farm stores.

The Algoma District has a “Buy Algoma, Buy Fresh” campaign that they would like to expand to include a certification component to highlight local area producers. RAIN feels that this would help enhance consumer demand in the region.

RAIN is a strong supporter of building capacity in forest and freshwater foods. They continue to work closely with area First Nations communities who have traditional expertise in accessing local, nutritional forest and freshwater food sources. Specifically, they are aiming to create a CFIA Certified Wild Foods Processing Centre for foods such as fish, mushrooms, berries, syrups, and forest jellies like cedar jelly. Currently, the project is in the pre-feasibility stage.

## **Strategies for Success**

RAIN is dedicated to the needs of agricultural organizations, producers, suppliers and agri-entrepreneurs in Northern Ontario. RAIN aims to enhance the industry by providing a collaborative infrastructure and network that enhances stakeholder capabilities and business growth.

RAIN is working with local producers to try practical new ideas or innovations to increase productivity. They help conduct on-site farm trials to help solve specific issues with producers. This approach is affordable and targeted. RAIN is building local capacity while incorporating best management practices into future growth and sustainability plans.



RAIN takes a pan-northern approach to agricultural research, innovation and agri-based economic development, while recognizing that the needs of Algoma's producers are unique. RAIN uses applied research to build the capacity of local food and farming in the Algoma District focusing on business growth and improved capacity for agriculture producers through new rural-based crops, commodities, value-added products and services.

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<http://rainalgoma.ca>