A Review of Binational Strategic Relationships in Michigan-Ontario Agri-Food Research, Production, and Processing

June 6, 2014

Introduction

The Michigan Applied Public Policy and Research program funded the Michigan State University Center for Community and Economic Development to conduct research on the agri-food production, joint regional marketing, and green chemistry sectors in Michigan and Ontario and identify the preliminary elements of binational regional collaborative strategies based on that research.

In the agri-food sector, the project team identified specialty crops grown in Michigan and Ontario for their potential in creating or building on strategic economic partnerships across the Michigan-Ontario border. Factors favoring such collaborative relationships include similar climate, close physical proximity, and socio-cultural similarities. These factors facilitate the formation of binational partnerships between Michigan and Ontario sectors that benefit both sides of the border.

It was found that such partnerships have generally formed in response to an event of catalyst that precipitated collaboration between Michigan and Ontario stakeholders in the affected sector. A catalyst might be a supply shortage or industry or regulatory constraints. These catalysts can result in opportunities for collaboration that provide mutual benefits from classic win-win situations. Partnerships formed when two or more stakeholders recognized a need that could be met with binational collaboration and then formed an informal or formal relationship.

We discuss here four agri-food cases in which binational collaboration was developed and successfully implemented by Michigan and Ontario interests: one, sugar beet production and sugar processing; two, the production and marketing of red tart cherries; three, research on and the production of asparagus; and four, greenhouse manufacturing and growers. We briefly describe the study methodology; and then review the issues and events that led to the formation of collaborative relationships of the involved parties in Ontario and Michigan, outcomes, and future steps. We pay particular attention to the formation of strategic binational partnerships between Michigan and Ontario agricultural sectors that create value and synergies within these sectors.

Methodology

1-Identify existing strategic binational partnerships in agri-food production sector.

2-Identify sectors with the potential for strategic binational partnerships.

3- Conduct web-based research and review relevant information on growers and processors in specialty and commodity crop areas.

4-Identify and conduct interviews with private sector representatives to elicit information on the formation, nature, history, future, obstacles, and successes of binational relationships.

Bill Knudson of the MSU Product Center, Steve Miller of the MSU Center of Economic Analysis, and other key informants provided the project team with insightful guidance in executing the methods of this study.

Michigan Sugar Company (Bay City, MI) and the Ontario Sugar Beet Growers

Background

Michigan Sugar Company, based in Bay City with processing facilities at Caro, Croswell, and Sebewaing, is the third largest beet sugar producer in the U.S. The company markets retail sugar under the brand names of Pioneer and Big Chief. It is a cooperative owned by sugar beet growers in Michigan and Ontario. This ownership structure resulted from a Chapter 11 bankruptcy filing by Imperial Sugar in 2001. Growers supplying Imperial Sugar were offered the sale of Imperial Sugar. In 2002, the Great Lakes Sugar Beet Growers Association formed a cooperative and purchased what became the Michigan Sugar Company (michigansugar.com/about/history).

Michigan-Ontario Sugar Beet Supply Data

Michigan and Ontario sugar beet harvest data for supplying the Michigan Sugar Company were obtained in an interview with Paul Pfenninger of the Michigan Sugar Company February 10, 2014. The data is presented in the table below.

Table 1: Michigan/Ontario Sugar Beet Production for Michigan Sugar Company, 2013

Location	Dover Center*	Lambton	Ontario**	Michigan	Total
Harvest (tons)	149,269	113,922	263,191	3,909,817	4,173,008
Planted Acres	5,789	3,844	9,633	150,172	159,805
Tons per acre	25.79	29.6	27.7	21.35	26.11
% sugar* **	17.49%	17.43%	17.46%	20.98%	18.34%

*Dover Center, ON is a collection station (piling ground) and these beets are from Kent and Essex Counties.

**Total for Kent and Lambton Counties.

***% of sugar beets processed to sugar.

Collaboration between Ontario and Michigan growers has been mutually beneficial since 1998. During the 2013 season, Michigan Sugar used 10,000 acres of Ontario sugar beets which is the maximum acreage Michigan Sugar Co. will import due to the higher costs associated with cross-border transportation.

Transport Costs and Competitive Benefits

The cost of transporting Canadian sugar beets can be 3 times greater than that of Michigan sugar beets, primarily a result of proximity to processing facilities. While the 10,000 Ontario acres contribute only 6% of total tonnage at Michigan Sugar, it performs a critical service by providing the necessary amount of the sugar beets to keep the processing facility running at capacity. While it seems illogical to pay 3 times the amount for transportation costs to keep a processing facility running, that reason makes fiscal sense when looking at the importance of throughput and relative cost of idle hours where nothing is being produced.

It is imperative to look at potential supply chains to determine whether cross border collaboration is viable. Specifically, with regards to logistical services, we review some coarse preliminary figures. Logistics providers prices range widely (due to the volatility of fuel prices) and incorporate many different factors so stating a "generic rate" is impractical. However, data provided by Michigan Sugar Company shows that the freight cost per ton of sugar beets from Dover Area, Canada is $12.40 per ton and the cost from Lambton, ON is $11.36 per ton. These freight rates far exceed the $4-$5 rates in Michigan. With the average tonnage per truckload being 12 tons, we see freight charges of $148.80 and $136.32 for Dover Area and Lambton, respectively. Establishing the total landed cost of bringing commodities from Canada to the U.S. and vice versa, compared with bringing them from another state or country is another way to make the case for cross-border collaboration.[1]

Ontario sugar beets also have good soil to grow in, and they have a higher yield (tonnage per acre) than Michigan beets (as shown in table 1). To provide further reasoning for the price, freight costs are a large portion of many businesses and agricultural commodities are no exception; and with the closest sugar beet-producing state being Minnesota, Ontario starts to look even better with both locations being less than 100 miles from a Michigan Sugar processing facility in Croswell. Mark Lumley of the Ontario Sugar Beet Growers Association noted two partial impediments to cross-border transportation of beets: the freight clearing customs and pesticide registration[2]. However, Ontario beet growers use the FAST program to expedite customs clearance thereby reducing the extent of the customs impediment.

Norfolk Cherry Company, Ltd. (Simcoe, ON) and Cherry Central Cooperative, Inc. (Traverse City, MI)

Norfolk Cherry Company in Simcoe, Ontario harvests, pits, and freezes sour cherries. After processing, cherries can be shipped to various types of processing facilities. Cherries are shipped in state, to the east coast, and exported overseas. Depending on cherry quality, cherries go to processors producing dried cherries, pie-making companies for pie filling, or juice companies. Norfolk Cherry sends its cherries to Indian Summer Juice Company in Traverse City, MI.[3]

Looking to market their products in the U.S., Norfolk joined CherrCo, Inc., a Ludington, MI tart cherry cooperative. This relationship introduced Norfolk to Cherry Central Cooperative. In May 2012, Norfolk

[1] Paul Pfenninger, Michigan Sugar Company, email communication, May 19, 2014.
[2] Mark Lumley, Ontario Sugar Beet Growers Association, phone interview, March 31, 2014.
[3] Ryan Schuyler, Norfolk Cherry Company, phone interview, April 17, 2014.

Cherry became a member of Cherry Central Cooperative, Inc., a federated marketing cooperative representing grower-owned processing plants across North America.

Cherry Central is a global marketer of frozen, canned, bottled, and dried products, including Michigan red tart cherries, apples, and blueberries as well as a major supplier of cranberries, strawberries, and asparagus grown on farms across the United States, Canada, and worldwide. The relationship between Norfolk Cherry Co. and Cherry Central Cooperative resulted in part from the impact of NAFTA. With the advent of more open trade, accessing Michigan expertise and resources made sense, especially with the Traverse City brand of the Cherry Capital of the World.

This resulted in a mutually-beneficial relationship in which Norfolk Cherry supplied Cherry Central and gained access to U.S. markets and Cherry Central achieved higher levels of capacity utilization. It was a classic win-win situation.

Michigan/Ontario Collaboration in Asparagus Research and Production

In the asparagus crop sectors of Michigan and Ontario, collaboration focuses on sharing best practices and research findings. The Michigan Asparagus Advisory Board (see Appendix A for member list) has worked closely with the Ontario Asparagus Growers (see Appendix B for list of board members) for over eight years. The two organizations have jointly worked on projects ranging from research on plant pathology to plant breeding.

About 75% of all asparagus currently grown in Michigan comes from seeds that were developed and bred at the University of Guelph in Ontario in 1999, called Millennium Asparagus. The two organizations attend each other's meetings and seek to identify areas they can work together, primarily in research. This openness in approach and institutional proximity is critical to binational regional collaboration.[4]

Although the Michigan Asparagus Advisory Board and Ontario Asparagus Growers already had an open working relationship, specific situations led the two organizations to work together more closely. In one situation, Michigan lagged in research on asparagus breeding while the University of Guelph was developing superior asparagus breeds. In another situation, Ontario growers needed assistance with plant pathology. The Ontario Growers Association was able to obtain a provincial government matching grant to work with Michigan researchers. In this collaboration, funds were raised for three years in Canada and Michigan matched the grant.[5]

Greenhouse Growing: Darpa Systems and Technology (Kingsville, ON) and Kilbourn Farms (Marshall, MI)

Darpa Systems of Kingsville, Ontario manufactures, trains, and assists in greenhouse growing operations. This includes the infrastructure for heating, irrigation, and hot water storage tank; scissor carts and harvesting carts; and grower and management training services.

[4] John Bakker, Michigan Asparagus Advisory Board, phone interview, April 14, 2014.
[5] John Bakker, Michigan Asparagus Advisory Board, phone interview, June 2, 2014.

There are 2,200 acres of greenhouses in the Leamington, Ontario area that grow tomatoes, peppers, and cucumbers with the produce shipped to retailers and food-service operations across North America. The capacity of Darpa Systems to create synergies can help companies operate greenhouses efficiently at lower variable costs than normal.

Kilbourn Farms' greenhouse operation in Marshall, MI may be an example. Kilbourn Farms sits on land with oil and natural gas deposits. Darpa Systems is expected to design and manufacture a 12-acre greenhouse system to take advantage of the on-site oil and natural gas.[6] The estimated cost of the project is $11,930,000 with financing from the Fifth Third bank ($8,650,000) and Darpa and Kilbourn equity of $3,280,000[7]. The Michigan Strategic Fund also approved to "collateral support totaling up to $4,316,350 to address anticipated collateral shortfall for the project."[8]

This system will provide a creative, synergistic, and cost-efficient alternative to regular greenhouse heating. With longer winters, heavier snow levels, and colder temperatures in the state[9], this system would put Kilbourn Farms at an advantage in terms of its heating costs.

Darpa Systems expressed interest in future business development in Michigan but indicated that financing is a major challenge. Lenders have raised concerns about low economic returns associated with greenhouse production.[10]

Findings

Binational collaboration clearly provides economic benefits to specialty crop growers, processors, and equipment suppliers. Our research produced cases where an event or catalyst caused growers or specialty crop associations to seek collaboration to help meet a specific challenge.

Our research specifically found that binational collaborative relationships can achieve one of four major objectives:

1. Fulfill processing and capacity utilization requirements.
2. Share research and methods.
3. Market products across borders.
4. Produce synergistic technologies that leverage each partner's resources.

These four objectives do not exhaust the list of potential benefits that might be derived from other forms of binational regional collaboration. Our research suggests that other objectives could be identified and achieved through the formation of binational collaborative relationships in other agri-food or agricultural sectors.

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[6] In an interview with Pete Ketler on June 2, 2014, he anticipated that construction will begin after June 6th, 2014.
[7] http://www.michiganbusiness.org/cm/Files/MSF_Board/Board_Minutes_Starting_January_2012/25-FEB-2014-Approved-MSF-Mtg-Minutes.pdf, Retrieved on May 30, 2014.
[8] IBID
[9] http://msue.anr.msu.edu/news/heavy_snow_loads_and_low_temperatures_challenge_michigan_greenhouse_growers, Retrieved on May 30, 2014.
[10] Pete Ketler, Darpa Systems and Technology, phone interview, April 25, 2014.

However, these potential relationships were not identified in our research. Such collaborative relationships not being realized are the result of a lack of knowledge and/or the absence of a platform to form such collaborative relationships.

But what we do know at this point is this. Successful collaborative relationships can be either formal or informal. They can arise from shared professional organizations, conferences, summits, and other similar opportunities. Successful collaborative relationships can also take root in informal and social situations. We want to nurture and facilitate both formal and informal types of binational regional collaboration for the mutual benefit of Michigan and Ontario economic sectors and overall binational prosperity.

Our research clearly indicates that binational collaborative relationships provide distinct benefits from the mutual leveraging of each side's resources and assets. Knowledge spillovers occur frequently and economic benefits are realized through physical proximity, process efficiencies, institutional proximity, and sharing methods.

Issues

The cost of logistics services is a key cost issue. In reviewing the development of strategic binational relationships, the first question is "will this be profitable?" Fuel prices represent a major variable cost. Fuel costs alone can discourage companies from even considering binational collaborative opportunities.

The need for a freight forwarder or broker for customs clearance is another necessary component that may be perceived as a barrier. However, our research shows that these perceived barriers are not as formidable as they might initially appear.

Future Steps

We will continue to obtain information from growers, processors, logistics providers, other researchers, and agricultural organizations in Michigan and Ontario. This research will help identify other specialty crops or commodity sectors with the potential to benefit from a cross-border partnership. There may be potential collaborative relationships in other specialty crop areas or commodity sectors.

Growers, processors, producers, and others closely tied to the agri-food sector should not wait for the next problem to arise before considering collaboration with their Canadian neighbors. Instead, a culture of collaboration can germinate and be cultivated. This culture can provide a platform where growers, processors and producers can both informally and formally meet and organize. The project team and advisory network can help facilitate the process to build these platforms.

We will look to facilitate first, the introduction of growers associations in Michigan and Ontario specifically in crops where no cross-border relationship has been identified. Successes, failures, needs and services should be shared across these groups so that if a binational strategic partnership is beneficial, it can be explored further.

We recognize that not all crops/sectors will benefit from binational collaboration. It may not be practical or fit their needs. However, bringing all players in a sector together to see who is playing, and how they are playing will benefit the sector.

To best go about forming these relationships between growers associations, we suggest holding workshops that ask questions and present information that will promote collaboration. To reiterate, our goal is to facilitate the informal and formal meetings between the groups. We want to show them examples of where success has been achieved and let them come together to experience it for themselves.

Other specialty crops were identified as candidates for cross-border collaboration and include:

- Blueberries
- Hazelnuts
- Cucumbers for pickling
- Grapes
- Apples

These specialty crops present areas where research on the formation and development of strategic binational partnerships may be particularly helpful.

We will research the above mentioned specialty crops through the lenses of our knowledge of collaborative relationships in other specialty crop areas and look to design and develop workshops for these other crop areas as well.

A beneficial part of our workshops would include a panel presentation comprised of 4-6 members. Half of the members would represent Ontario growers & producers and the other half would represent Michigan growers and producers. Our goal would be to secure growers and producers that have familiarity in working with their cross border counter parts. This panel would begin with a brief history of each member's role in binational specialty crop collaboration. Next, members would speak briefly about challenges that they faced that led them to look across the border and why they chose to do so. Lastly, members of the panel would have time to share successes of binational specialty crop collaboration, followed up by a look at the future and time for questions.

Appendix A:

Michigan Asparagus Advisory Board

P.O. Box 550, 12800 Escanaba Drive, Suite A
DeWitt, Michigan 48820

2013 Board Members[11]

John Bakker, Executive Director

Northern-Central Michigan Area

Sarah Greiner, Sec-Treasurer
Oceana County

Eric Herrygers
Oceana County

Dwight Fuehring
Oceana County

Southwest Michigan Area

Kyle Weber
Berrien County

Vic Shank, Chairman
Cass County

Harold Goodell
Cass County

At Large

Ryan Walsworth
Oceana County

Kenneth Oomen, Vice Chairman
Oceana County

Tom Oomen
Oceana County

[11] Source: http://www.asparagus.org/maab/program.html Retrieved May 23, 2014.

Appendix B:

Ontario Sugar Beet Growers Association

Board Members[12]

Committee Board Members

Mark Delanghe

Jamie McGrail

Tamara Stokes

Mike Buis

Jacques Tetreault

Joanne Mervin

Mike Korpan

Rick LeHoux

Leon Leclair

Mark Richards

Francis Dobbelaar

Chris Nanni

Resource Members

Krista Gladstone

Sue McLarty

James Snyder

Jeff Kinsella

Kim Cooper

Lyndsay Davidson

[12] Source: http://wegrowfortheworld.com/about-chatham-kent-agriculture-development/board-members/ Retrieved May 27, 2014

Appendix C:

Sources/Interviewees

Steven Miller, Ph.D., Michigan State University Center of Economic Analysis

William Knudson, Ph.D., Michigan State University Product Center

Bob Boehm, Michigan Farm Bureau

Peter Ketler, Darpa Systems and Technology

Bruce Sutherland, Michigan Agricultural Commodities

Paul Pfenninger, Michigan Sugar Company

Ryan Schuyler, Norfolk Cherry Company

John Bakker, Michigan Asparagus Advisory Board

Mark Lumley, Ontario Sugar Beet Growers Association

Steve Eiseler, Cherry Central Cooperative, Inc.