CITY OF HAMILTON

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Economic Development Division

TO: Mayor and Members General Issues Committee	**WARD(S) AFFECTED:** CITY WIDE
COMMITTEE DATE: February 15, 2012	
SUBJECT/REPORT NO: Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021 (City Wide) (PED12020)	
SUBMITTED BY: Tim McCabe Planning and Economic Development Department	**PREPARED BY:** Sue Monarch (905) 546-2424 Ext. 4132 Neil Everson (905) 546-2424 Ext. 2359
SIGNATURE:	

RECOMMENDATIONS:

(a) That Appendix "A", attached to Report PED12020 respecting *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021,* be received;

(b) That the City of Hamilton endorses the formation of a Golden Horseshoe Food and Farming Alliance (GHFFA);

(c) That City of Hamilton staff be directed to commence working with its partners and community stakeholders to implement specific actions under the *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021;*

(d) That the Mayor, on behalf of City of Hamilton, submit a funding request to the Province's Ministry of Agriculture of Food & Rural Affairs and the Ministry of Municipal Affairs and Housing for the *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021*; and,

(e) That a copy of the subject report and the *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021,* be sent to the following local and Provincial Farming Organizations: the Hamilton Wentworth Federation of Agriculture, Ontario Federation of Agriculture, Brant Wentworth Christian Farmers Federation and members of the City of Hamilton Agricultural & Rural Affairs Advisory Committee and Community Food Security Stakeholders Committee.

EXECUTIVE SUMMARY

In August 2009, the Vineland Research and Innovation Centre, in partnership with the Greater Toronto Area Agricultural Action Committee (GTA AAC), the Friends of the Greenbelt Foundation, Region of Niagara and the City of Hamilton, hosted a session with stakeholder organizations to discuss issues related to food and farming in the Golden Horseshoe. Through these discussions, it became evident that these organizations were all working on similar projects and actions.

As a result, the GTA AAC, Region of Niagara, Friends of the Greenbelt Foundation and the City of Hamilton joined forces to create a united action plan to support the economic development of the thriving food and farm sector in the western segment of the Golden Horseshoe.

The result was the compilation of the "*Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021"* (the Action Plan). The Action Plan builds upon and complements the goals of the 2007 City of Hamilton Agricultural Action Plan. Its broader encompassing area and expanded partnership enables the City of Hamilton to now more effectively engage stakeholders on issues related to economic development, land use planning, agriculture production as well as public health and nutrition.

Alternatives for Consideration – See Page 6.

FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)

Financial: In 2005, the Province of Ontario through the Ministry of Municipal Affairs and Housing made a $1 million investment that led to the development of individual agricultural plans for the Region of Niagara and City of Hamilton ($100,000 each), and the formation of the Greater Toronto Area Agricultural Action Committee (GTA AAC) to deliver an Agricultural Action Plan for the Regions of Durham, Halton, Peel and York, and the City of Toronto ($800,000). This initial investment from the Provincial government has enabled us to achieve many of our established economic

development, marketing, education and land use policy goals. In order to move forward and implement specific actions under the *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021;* further financial support from the Provincial Government will be a critical requirement. The extent of funding received will directly affect how much of the Action Plan we will be able to accomplish.

Staffing: Coordination of planning and economic development efforts in support of the Action Plan will be lead by City of Hamilton Planning and Economic Development staff, in collaboration with other Golden Horseshoe municipalities and Regions, Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Agriculture and Agri-Food Canada (AAFC), representatives from the food and farming sectors, and other partners.

Legal: That any agreement regarding applicable funding from the Province of Ontario is in a form satisfactory to the City Solicitor or his designate.

HISTORICAL BACKGROUND (Chronology of events)

In 2001, the City of Hamilton spearheaded the creation of the local Agricultural and Rural Affairs Advisory Committee. This Committee consists of Council members and staff working jointly with community leaders from across Hamilton's diverse agricultural and rural sector to define a decision-making framework aimed at developing long term sustainability for our agriculture cluster and rural community.

This process has been accelerated by the *2003 City of Hamilton Agricultural Economic Impact Study* that quantified Hamilton's agricultural base as a $1 billion per year economic engine for Hamilton. In 2007, the City of Hamilton continued the process by developing a long term *Agricultural Action Plan* that identified tasks to support and sustain the Agriculture sector in this community. In 2008, staff completed the *Hamilton Agricultural Profile 2008 – an Update to the City of Hamilton 2003 Agricultural Economic Impact Study* which quantified that this sector had grown to a $1.2 billion economic impact, annually.

The strong growth of the local agricultural industry, along with increasing opportunities in the Agri-Business (food processing) cluster, resulted in Economic Development staff identifying Agriculture and Agri-Business (Food Processing) as one of six key industry groups (clusters) and including it in the *City of Hamilton's Five Year Economic Development Strategy.*

These actions, initiatives, and industry partnerships, coupled with dedicated City of Hamilton staff resources from across several City departments, have contributed to a strengthening of the Agri-Business cluster in the City of Hamilton. This is also one of the underlying factors that stimulated recent investments in the Red Hill Business Park from companies such as Canada Bread and Maple Leaf Foods.

POLICY IMPLICATIONS

The Action Plan emphasizes the need for co-ordinated economic development and planning approaches within the Golden Horseshoe. Examples of actions in the Action Plan include:

- Align and strengthen dedicated economic development and planning resources to support the food and farming cluster in the Golden Horseshoe.
- Harmonize and improve policy tools in the Golden Horseshoe (eg. Provincial policies, official plans, taxation, regulations) for consistent implementation responsive to the needs of food and farming businesses.

RELEVANT CONSULTATION

Staff from Public Health Services, Planning and Economic Development and Council, were consulted and participated in the 2011 March Summit. In addition, members of the Agricultural Rural Affairs Advisory Committee, Community Food Security Stakeholders Committee, Hamilton Wentworth Federation of Agriculture, Brant Wentworth Christian Farmers Association, Environment Hamilton, as well as several local agri-food businesses, participated in the March Summit and were extensively consulted throughout the development of the Action Plan.

ANALYSIS / RATIONALE FOR RECOMMENDATION

(include Performance Measurement/Benchmarking Data, if applicable)

There have been four phases to the development of the *Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021*, they are as follows:

***Phase 1 – The "Golden Horseshoe Food and Farming Background Report"* attached as Appendix "B" to Report PED12020.**

The background report, released in January 2011, was developed to provide a social, economic and environmental profile of agriculture in the Golden Horseshoe today. This report provides the following highlights:

- The food and farming cluster in the Golden Horseshoe is the second largest in North America. This cluster is comprised of the primary production, food processing, food distribution, food services and food retails sectors.

- The economic activity of this food and farming sector is estimated to be $12.3 billion which, in turn, leverages $35 billion to the Canadian economy.

The backgrounder also provided insight into the opportunities and challenges for enhancing the existing farm and food cluster in the Golden Horseshoe over the next 10 years.

Phase 2 – "Food and Farming: An Action Plan, 2021" Summit

On March 30th, 2011, the "Food and Farming: An Action Plan, 2021" Summit was held, bringing together over 100 stakeholders from government, the agri-food processing industry, retailers, non-government organizations and primary producers. The Summit consultation provided key comment for the creation of the "*Golden Horseshoe Food and Farming Action Plan, 2021".*

Phase 3 – Draft "Golden Horseshoe Food and Farming Action Plan, 2021"

Based on the findings of the Golden Horseshoe Food and Farming Backgrounder Report, the Summit and additional extensive consultation with stakeholder representatives from agricultural organizations, government, agri-food processing and agri-retail industries, the "*Golden Horseshoe Food and Farming Action Plan, 2021"* was drafted over the summer of 2011. This draft Action Plan was broadly circulated to partners, for review, comment and endorsement.

Phase 4 – Launch of the "*Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021****"***

Once endorsement of the Action Plan has been received from City and Regional Councils and partners, there will be an official launch of the final "*Golden Horseshoe Agriculture & Agri-Food Strategy - Food & Farming: An Action Plan 2021".* This has been scheduled for March 2, 2012, to be held at the Vineland Research and Innovation Centre.

The Action Plan outlines a 10 year vision for the Golden Horseshoe. It strives to establish the Golden Horseshoe as a globally renowned "vibrant food and farming cluster, characterized by profitable farming operations, a thriving hub of food processing, food retail and food services businesses, extensive research capacity, innovative technology and a wide range of healthy and safe products."

The Action Plan is divided into five main opportunities, each with a corresponding series of actions to support the success of the opportunity. These are:

A. *Grow the Cluster* – Grow the Golden Horseshoe so it becomes the leading food and farming cluster in the world, renowned for safe, healthy products.

B. *Link Food, Farming and Health* – Educate current and future consumers about the importance of locally sourced food and farming products to enhance their health and well-being.

C. *Foster Innovation* – Encourage and support innovation to enhance the competitiveness and sustainability of the Golden Horseshoe food and farming cluster.

D. *Enable the Cluster* – Align policy tools and their application to enable food and farming businesses to be increasingly competitive and profitable.

E. *Cultivate New Approaches* – Pilot new approaches to support food and farming in the Golden Horseshoe.

In order to achieve the Action Plan, a corresponding "*Implementation Strategy*" has been developed (see Pages 15 - 20, on the report attached as Appendix "A" to Report PED12020). This strategy outlines the tasks needed to achieve the desired action.

To be successful, these actions must be implemented by:

- assigning lead responsibilities to committed, capable partners who can provide the necessary leadership;
- sustaining consensus and achieving results;
- establishing clear goals and corresponding measures for success;
- establishing timelines for important milestones; and,
- monitoring progress achieved, reporting on outcomes, and celebrating achievements

In order to achieve these outcomes and to establish specific benchmarks for success, the Golden Horseshoe Food and Farming Alliance (GHFFA) will work cooperatively to ensure delivery of this 10 year Action Plan.

ALTERNATIVES FOR CONSIDERATION:

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

Financial: Not Applicable

Staffing: City of Hamilton would not be part of the Golden Horseshoe Food and Farming Partnership moving forward and furthermore; staff would not work with partners to implement specific actions under the *Golden Horseshoe Food and Farming Action Plan, 2021.*

Legal: Not Applicable

CORPORATE STRATEGIC PLAN (Linkage to Desired End Results)

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Intergovernmental Relationships

- Influence federal and provincial policy development to benefit Hamilton
- Acquire greater share of Provincial and Federal grants (including those that meet specific needs)
- Maintain effective relationships with other public agencies

Growing Our Economy

- Competitive business environment

Social Development

- Hamilton residents are optimally employed earning a living wage

Environmental Stewardship

- Natural resources are protected and enhanced
- Aspiring to the highest environmental standards

Healthy Community

- Adequate access to food, water, shelter and income, safety, work, recreation and support for all (Human Resources).

APPENDICES / SCHEDULES

Appendix “A” to Report PED12020 - Golden Horseshoe Food and Farming Action Plan, 2021

Appendix “B” to Report PED12020 - Golden Horseshoe Food and Farming Background Report

SM/dkm



Golden Horseshoe Agriculture & Agri-Food Strategy

Food & Farming: An Action Plan 2021



January 2012

Prepared for the Steering Committee by

Margaret Walton
Planscape Inc.
104 Kimberley Avenue
Bracebridge, ON P1L 1Z8
T: 1.705.645.1556 • F: 1.705.645.4500

In Collaboration With
Jayeff Partners – James Farrar
Regional Analytics Inc. – Dr. Rick DiFrancesco
Mary Wiley Communications
Soils Resources Inc. - Dr. Ann Huber
Queen's Management Institute – Erik Lockhart

Golden Horseshoe
Food and Farming Action Plan 2021

There are two reports produced as part of this project:
Golden Horseshoe Food and Farming Action Plan
Implementation Strategy and Background Report

To acquire these documents in electronic format, please visit

www.gtaaac.ca

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Securing the Future of Food and Farming in Ontario's Golden Horseshoe

The Golden Horseshoe of Ontario, stretching along the shores of Lake Ontario, is not only the fastest growing region of Canada with a diverse and sophisticated urban population, it is a vast, rich agricultural area and home to one of the largest food and farming clusters in North America. Comprised of the Regions of Durham, Halton, Niagara, Peel, York and the Cities of Hamilton and Toronto, the Golden Horseshoe produces over 200 different types of agricultural crops and contains the majority of Ontario's food processing operations, head offices of major food retail merchandisers, Canadian headquarters of global consumer branded food companies and Ontario's food distribution centres. Characterized by thousands of vibrant entrepreneurs in food and farming, the Golden Horseshoe is home to both heritage family farms and flourishing family businesses founded by first generation Canadians.

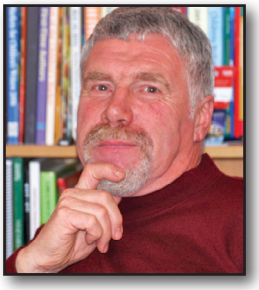
As farmers in the Golden Horseshoe, we see a wealth of opportunities for the Golden Horseshoe to grow as an internationally renowned centre for food production. However there are challenges that are impeding the growth of food and farming in the region.

Strong leadership, progressive policies and cooperative action are required to address these challenges and capitalize on opportunities. In this day when food production is a growing concern in many nations, we owe it to future generations to ensure that the Golden Horseshoe retains and expands its role as a leading food and farming cluster.

This plan is a call to action to take on this challenge. We invite you to join our group of farmers, industry leaders and politicians to implement this plan to make the Golden Horseshoe the leading food and farming cluster in the world.

Nick Ferri
Chair
Greater Toronto Area Agricultural Action Committee

Photo credit: Anne Howden Thompson



Peter Lambrick
Chair
Golden Horseshoe Food and Farming Action Plan Steering Committee

Photo credit: Anne Howden Thompson

"Think of agriculture as the solution provider to society."
John Oliver, President of Maple Leaf Bio-Concepts and Lojon Associates International, in Oshawa, ON

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WHY THE GOLDEN HORSESHOE?

Ontario's Golden Horseshoe is home to the one of the largest food and farming clusters in North America. The region's superb agricultural land is complemented by a moderate climate and access to an abundant supply of fresh water. The one million acres of farmland under production within the boundaries of the region generate in excess of $1.5 billion in gross farm receipts annually from a production profile that includes 200 different agricultural commodities. Both provincially designated specialty crop areas in Ontario, the tender fruit and grape lands of the Niagara Peninsula and the vegetable producing "muck" soil of the Holland Marsh are located in the Golden Horseshoe. It is home to the majority of Ontario's tender fruit and grape production and the majority of the province's floriculture greenhouses.

When the value of the food processing component of the cluster is factored in, the annual economic activity is estimated to be $12.3 billion across the food and farming cluster in the Golden Horseshoe. This direct economic activity, in turn, is estimated to contribute $35 billion annually to Canada's economy through the multiplier effect. Food processing businesses in the region now employ more workers than the auto industry. In support of all of this activity, the Golden Horseshoe has significant, broadly based research and innovation capacity within its boundaries.

As one of the pillars of the Golden Horseshoe's diversified economy, the food and farming cluster has great potential for sustainable growth over the next ten years and beyond. A rich endowment of soil, water resources and infrastructure combined with access to a large diverse market, an abundant, educated labour force and outstanding research capabilities are among the advantages that stand to propel the cluster forward.

FOOD AND FARMING CLUSTER

1

A **cluster** is defined as a geographic region with a sufficient number of activities with similar or related needs and interests to generate external economies of scale and produce innovation.

A **food and farming cluster** is comprised of enterprises and institutions involved in growing, harvesting, processing and distributing food, beverage and bioproducts derived from agriculture. The phrase is used to describe the combined activities and outputs of primary production (farmers), food processing, food service providers (including hotels, restaurants, and institutions), food wholesalers/distributors and food retailers/merchandisers and the input suppliers and service providers to the cluster. Essential supporting activities that are a vital part of the cluster are those that provide services, impart skills and training, undertake research and innovation and enable commercialization.

Food and farming includes ornamental products, equestrian activities, bioproducts, and bio-energy applications.

VALUE CHAIN MANAGEMENT

Value chain management is an interdependent approach to business where trading partners improve their combined competitiveness by collaborating to more effectively and efficiently deliver a product or service to the consumer. Value chain management differs from traditional buyer-seller relationships in that there is a commitment among the chain partners to share information, risks and rewards in the expectation that the entire chain can achieve more by working together than if working independently for self-interest.

Martin Gooch, Director, Value Chain Management Centre, George Morris Centre

WHY DO WE NEED A PLAN?

The potential for the Golden Horseshoe food and farming cluster to grow **cannot be taken for granted**. There are challenges that need to be understood and addressed. The food and farming cluster is diverse. Paradoxically, while the defining characteristics make the cluster resilient, there has been a lack of focus and collective purpose in formulating integrated policies to support and nurture its growth.

Key challenges faced by the food and farming businesses in the region are complex. The challenges include:

- fierce competition for land which:
  - drives land prices beyond the reach of farmers and results in the conversion of farmland to other uses;
  - impedes the development of new businesses and the expansion of existing businesses;
- lack of public awareness about the opportunities and advantages associated with the food and farming cluster;
- multiple, disjointed regulations and policies that detract from the ability to do business efficiently;
- congestion that negatively affects the efficient movement of goods and the cost of transportation;
- rising costs of energy and uncertainty over the impact of global climate change;
- expanding urban-based infrastructure that impacts the ability to farm efficiently;
- lack of integration among different parts of the cluster; and
- gaps in infrastructure that prevent integration.

By addressing and managing these challenges, farmers, government, business and other stakeholders will help the cluster flourish.

Photo credit: Jamie Reaume

HOW DID THE PLAN START?

The competition for land between urban development and agriculture is ongoing in the Golden Horseshoe. As the struggle to manage growth while protecting farmland intensified in the 1990's, regional planners and agricultural groups started working together to find acceptable solutions. The Province became actively involved in the process with the enactment of the Oak Ridges Moraine Conservation Plan in 2002, the Greenbelt Plan in 2005 and the Places to Grow, Growth Plan for the Greater Golden Horseshoe in 2006. Enactment of this legislation was the catalyst that brought additional parties involved in food and farming in the Golden Horseshoe together. Although these plans addressed the protection of the agricultural land from a land use planning perspective, they failed to address the economic viability of farming business. Those involved in food and farming in the Golden Horseshoe recognized that they had common interests and that by working together they had potential to

- support economic viability for all components of the food and farming cluster;
- maintain the agricultural land base;
- build better regional connections throughout the food and farming value chain; and
- reduce regulatory barriers to enable the cluster to thrive.

Photo credit: Vineland Research Innovation Centre

In response to this opportunity, in August 2009, the Vineland Research and Innovation Centre, in co-operation with the Greater Toronto Area Agricultural Action Committee (GTA AAC)[1], the Friends of the Greenbelt Foundation, Greater Toronto Countryside Mayors' Alliance[2], the Region of Niagara and the City of Hamilton, met to discuss the issues related to food and farming in the Golden Horseshoe.

As the discussion progressed, it became apparent that everyone present was addressing similar challenges, investing in similar projects across the Golden Horseshoe and working to support components of the food and farming cluster. Working under the leadership of the GTA AAC, Region of Niagara, City of Hamilton and Friends of the Greenbelt Foundation, the partners secured funding, consulted with stakeholders, government agencies and industry representatives and collaborated to create a strategy and action plan to support food and farming across the Golden Horseshoe and in the Holland Marsh.

This **Golden Horseshoe Food and Farming Action Plan 2021** is the result of the ensuing collaboration. This plan is a call to action to support what we have and to enrich it.

1. The GTA AAC is comprised of representatives from governments and organizations associated with agriculture, agri-food business and the local food system in the City of Toronto and the Regions of Durham, Halton, Peel and York. For more information about the GTA AAC go to www.gtaaac.ca.
2. Greater Toronto Countryside Mayor's Alliance municipalities include: City of Pickering, Municipality of Clarington, Townships of Scugog, Uxbridge, Brock, King, East Gwillimbury and the Towns of Whitchurch-Stouffville, Aurora, Newmarket, Georgina, Milton, Caledon and Halton Hills.

WHAT WILL THE PLAN ACHIEVE?

This Food and Farming Action Plan for the Golden Horseshoe provides a blueprint for supporting and growing a thriving, integrated food and farming sector in the Golden Horseshoe. It responds to the common challenges and opportunities the area shares. These challenges and opportunities arise from the large concentration of population, growth pressures, conflict between agricultural and urban land uses, myriad of regulations and overlapping agencies, and cluster of food and farming enterprises located within it. The plan focuses on **enhancing competitiveness**, **promoting sustainability** and **removing barriers** that stand in the way of achieving these goals.

"Agriculture in the Golden Horseshoe is poised to serve the changing face of the Canadian population. As a cluster with global reach we must work together to seize the opportunities that will lead to change but also growth."

Dr. Jim Brandle, CEO Vineland Research and Innovation Centre

WHY A TEN YEAR TIME FRAME?

The action plan covers a ten year period from 2011 to 2021. This timeline was chosen in response to election timetables at the municipal and provincial levels, census cycles, and to incorporate the scheduled review of the Greenbelt Plan in 2015. A ten year time frame allows sufficient time to achieve the longer term goals, and is of manageable duration when asking partners for commitments.

WHAT ARE THE KEY FACTORS FOR SUCCESS?

Success depends on **strong leadership** and a **commitment from the diverse partners** identified in the plan, to work together towards common goals. If each partner does their part, with the assistance of strong and focused leaders, the result will be the emergence of a stronger, more secure food and farming cluster in the Golden Horseshoe. The cluster will be an engine for economic growth that will sustain food production and contribute to healthy living in the region and beyond for future generations.

One of the fundamental guiding principles established by the Steering Committee[3] in preparing the Action Plan was to avoid duplication of effort and build on existing work that addresses food and farming issues. Each of the partners in this process has been working on advancing food and farming interests. This Action Plan builds on past results and incorporates plans that are ongoing. Where one partner is advanced in the management of a particular issue, their lead role will continue and the positive experiences and lessons learned about the issue will be applied to the entire Golden Horseshoe.

The plan must be implemented as a complete package. "Cherry picking" individual parts will not achieve the goals. The actions and tasks must work together as a co-ordinated plan.

3. The Steering Committee members are listed on page 23.

WHAT ARE THE KEY OPPORTUNITIES?

The timing of this Action Plan is opportune. There is a convergence of circumstances that support implementation of a successful plan.

Actions need to focus on specific goals:

- create a positive environment for investors;
- seed new enterprises through commercialization and incubation;
- attract global enterprises as their preferred investment destination;
- maintain the land base for agriculture and create the circumstances that support profitable, sustainable farming in the Golden Horseshoe;
- raise public awareness about the contribution of the food and farming cluster to health;
- increase access to locally grown food, promoting a consumer culture of quality over price and celebrating regional product;
- use the experience and connections of the Golden Horseshoe's diverse population to open markets for food and farming products in countries with rapid economic and population growth; and
- build first class infrastructure to service the food and farming cluster.

"Canada is positioned to leverage the trust we Canadians have in our safe food supply to gain the confidence of the world. Canada can become renowned for food of outstanding quality as Switzerland is for the strength of its finance sector."

Dr. Gord Surgeoner, President, Ontario Agri-Food Technologies

hoto credit: http://www.greenbelt.ca/multimedia/photos/Halton/Hamilton

CHOOSING THE ACTIONS

This plan focuses specifically on actions that support food and farming businesses in the Golden Horseshoe. To assess which actions should be included in the plan, the Steering Committee used three fundamental tests:

- Is the action addressing a Golden Horseshoe specific issue?
- Will the action make a real difference to the future of food and farming in the Golden Horseshoe?
- Is the action realistic and therefore achievable?

Photo credit: Jamie Reaume

"Ontario is Canada's largest province by population, and the agriculture and agri-food sector is its number one employer. In the Greater Toronto Area and R&D driven south-western Ontario, 210,000 researchers, industry employees, innovators and collaborators have built a stellar reputation for reliable, sustainable sources of agricultural raw materials, state of-the-art automated food processing methods, and world class food safety standards."

Gerry Pisarzowski, VP, Business Development, Greater Toronto Marketing Alliance, September 2011.

Vineland Research and Innovation Centre

The Action Plan

The food and farming cluster in the Golden Horseshoe is diverse and multi-faceted with tremendous potential to expand. The essential elements of this cluster are well-established, anchored on the prime agricultural land base. Factors that make the Golden Horseshoe so unique and well suited to food and farming include:

- a combination of rich soil, abundant fresh water and a moderate climate;
- a well established food and beverage manufacturing sector;
- a concentration of food retail and food service businesses driven by entrepreneurs;
- access to abundant skilled labour; and
- multi-modal transportation systems.

The partners supporting this Action Plan include representatives from all parts of the food and farming cluster. Together they endorse this vision for food and farming in the Golden Horseshoe:

THE VISION

The Golden Horseshoe is globally renowned as a vibrant food and farming cluster, characterized by profitable farming operations, a thriving hub of food processing, food retail and food service businesses, extensive research capacity, innovative technology, and a wide range of healthy and safe products.

OPPORTUNITIES FOR CHANGE

The Action Plan focuses on five opportunities to achieve the vision.

A. GROW THE CLUSTER
Grow the Golden Horseshoe cluster so it becomes the leading food and farming cluster in the world, renowned for healthy and safe products.

B. LINK FOOD, FARMING AND HEALTH
Educate current and future consumers about the importance of locally sourced food and farming products for enhancing their health and well-being.

C. FOSTER INNOVATION
Encourage and support innovation to enhance the competitiveness and sustainability of the Golden Horseshoe food and farming cluster.

D. ENABLE THE CLUSTER
Align policy tools and their application to enable food and farming businesses to be increasingly competitive and profitable.

E. CULTIVATE NEW APPROACHES
Pilot new approaches to support food and farming in the Golden Horseshoe.

A. GROW THE CLUSTER

Grow the Golden Horseshoe cluster so it becomes the leading food and farming cluster in the world, renowned for healthy and safe products.

Farming and food are vital contributors to the economy of the Golden Horseshoe, providing food to families and bioproducts to industry while creating jobs and healthy communities. Agricultural production and food processing are estimated to generate $12.3 billion in output annually in the Golden Horseshoe. This direct output, in turn, stimulates $35 billion of total estimated annual economic activity across Canada's economy.

Ontario's food and beverage manufacturing sector, a vital part of the food and farming value chain, employs over 110,000 people directly and over 100,000 more in related industries. The majority of this workforce activity occurs within the Golden Horseshoe.

The unique physical land features combined with high quality soils and moderate climate have given the area a wealth of agricultural and economic opportunities. This favourable endowment of soil and climate enables the Golden Horseshoe to produce over 200 crops. The region is also one of the most densely populated, culturally diverse areas in Canada, with a population of 8.1 million in 2011, projected to grow to 11.5 million by 2031. These factors, combined with the area's food processing sector and proximity to the American market, give the Golden Horseshoe opportunities not found in other areas of the province – access to domestic and international markets, a skilled labour force, transportation infrastructure and a wide variety of post-secondary educational institutions.

Photo credit: http://www.greenbelt.ca/multimedia/photos/Halton/Hamilton

"Canadians are increasingly aware of food and food issues. They are showing concern with the environmental impact of our food supply. They are concerned with the impact of urban development. And more so than ever, spurred by stories of food riots, under and poorly nourished Canadian children and a rapidly growing global population, Canadians are concerned about the availability of food domestically and abroad."

Neil Currie and Garnet Etsell, National Food Strategy Steering Committee

At the same time, the cluster faces the following barriers to growth:

- pressure on profitability;
- competition from the importation of low-cost offshore food products;
- aging farm operators;
- infrastructure gaps;
- expensive land and rising labour costs;
- gaps and inefficiencies in the current food value chain; and
- development pressures.

There is a compelling need to build awareness of the value of this sector in relation to the provincial economy and implement strategies necessary to renew and grow this cluster.

According to research done for Local Food Plus, a Canadian non-profit organization bringing farmers and consumers together to build regional food economies, eating local food has a 3:1 economic impact on the local economy. Hence, increasing the consumption of locally grown and processed food will yield important benefits to the region.

Strategy: Grow the cluster by coordinating economic development, finding the voids, filling the gaps, and building on strengths in the Golden Horseshoe.

Action 1: Implement the Golden Horseshoe Food and Farming Action Plan.

2: Align and strengthen dedicated economic development and planning resources to support the food and farming cluster in the Golden Horseshoe.

3: Develop solutions to close gaps in the infrastructure required to support the food and farming industry.

4: Expand existing and cultivate new markets by leveraging the cultural diversity of the Golden Horseshoe.

Photo credit: - http://farm4.static.flickr.com/3117/3130288692_16ce496b83.jpg?v=1230010043

"Collaboration among farmers, processors, retailers and research and innovation leaders is essential if we continue to be a highly productive and competitive sector. This plan sets the course for a new and innovative way of conducting business in agriculture and agri-food."

Donald Ziraldo, Past Chairman, Vineland Research and Innovation Centre

B. LINK FOOD, FARMING AND HEALTH

Educate current and future consumers about the importance of locally sourced food and farming products for enhancing their health and well-being.

Access to nutritious, affordable, safe and culturally diverse food is one of the foundations for an active, healthy life.

Unhealthy eating leads to increased risks for serious and long-term chronic diseases such as cancer, heart disease and diabetes. In 2003, Health Canada estimated the total economic burden of unhealthy choices in Canada at approximately $6.6 billion per year.

However, consumer trends indicate Canadians are making healthier food choices. An Angus Reid poll in February 2011 shows that 76% of Canadians are making healthier food choices compared to three years ago. People aged 55 and over led the pack, with 80% of them making healthier eating choices compared to 76% of those ages 35 to 54 and 73% among those ages 18 to 34.

Eating more fresh food was cited as the most common way people are improving their dietary habits; 42% of respondents were taking that approach as compared to 38% who said they had reduced their salt intake and 36% who have cut down on fat.

The poll also shows that about two-thirds of consumers are influenced by nutrition information on food packages while cost is cited as the largest barrier to buying healthy food.

Food safety is also a consumer concern and Canadians are increasingly wary of the safety of imported food products (Decima Poll, 2010). According to the Canadian Food Inspection Agency (2011), over 70% of food products sold in Canada are imported and most of the domestic products contain imported ingredients. These products and ingredients come from more than 190 countries which have varying levels of food safety controls.

Photo credit: http://www.littlepiggy.ca/wp-content/uploads/2010/06/DSCN38371.jpg

"Food can play a powerful role in promoting health as well as building strong and diverse communities, protecting the environment and strengthening the economy. That's why food is such an effective vehicle to connect people to one another, to their neighbourhoods and their city."

Dr. David McKeown,
Medical Officer of Health,
City of Toronto, May 2010

Many of these imports take days or weeks to reach our shelves. Local food can be on our plates within hours and at peak freshness. While it is recognized that a healthy diet will include imported foods, increased consumption of local foods also provides additional benefits to our ecological systems.

Farmers and food processors in the Golden Horseshoe, with their wealth of healthy and safe product offerings, can have a vital role in meeting consumer demands, if the systems are in place to support the farm and food cluster.

Strategy: Work closely with a broad range of stakeholders to educate and inform consumers about healthy food products from Golden Horseshoe.

Action 1: Increase local food literacy with a focus on youth.

2: Secure the mandate for local health units within Golden Horseshoe communities to promote increased consumption of local food.

3: Expand the use, management and impact of the Foodland Ontario brand.

"Canada imports more than 53% of its vegetables and over 95% of its fruit. Red meat imports have risen 600% over the last 40 years. In fact, in 15 years, our food imports increased by 160% while Canada's population increased by only 15%. Ontario, with some of Canada's best farmland, has annual food imports valued at $4 billion – from bananas to more exotic citrus and other fresh and processed products. For each apple exported from Ontario, five are imported. For pears, the ratio is one exported for every 700 imported."
(EatRealEatLocal.ca)

Photo credit: http://greenfusestock.photoshelter.com/gallery-image/Farmers-Markets-The-People/G0000JFwPsl1Y26s/I0000iBQypdvkYsY

C. FOSTER INNOVATION

Encourage and support innovation to enhance the competitiveness and sustainability of the Golden Horseshoe food and farming cluster.

The keys to being competitive in today's world markets are innovation and flexibility. It is essential to implement new ways of doing business. The Golden Horseshoe has significant, broadly based research and innovation capacity focused within its boundaries that can help food and farming businesses to achieve this goal.

The Holland Marsh Muck Research Station focuses on specific attributes of the region. Vineland Research and Innovation Centre, established in 2007, provides a new collaborative model, representing industry, government and universities, to drive innovation and commercialization in horticulture. Numerous world class universities and colleges located in the region conduct leading research into issues related to health and well being. The MaRS Centre is in the Discovery District, between the country's leading teaching hospitals and three major universities. MaRS is one of Canada's 11 Centres of Excellence for Commercialization Research.

Businesses in the Golden Horseshoe have ready access to Guelph's outstanding agri-food research expertise. The Ontario Network of Excellence (ONE), is a province-wide team of member organizations that connect and enable active collaboration between the communities of science, business, government, academia to accelerate innovation processes. The ONE network has 14 facilities in Ontario including:

- The Regional Municipality of York, ventureLAB
- Niagara Region, Niagara Interacitve Media Generator (nGen)
- The Regional Municipality of Halton, HalTech Innovation Centre
- The Region of Peel, Research Innovation Commercialization Centre (RICC)
- The City of Toronto, MaRS Discovery District
- Durham, Innovation Durham Northumberland (IDN)
- Hamilton, Innovation Factory

Strategy: Position the agriculture, food processing, food retail and food service sector in the Golden Horseshoe as "the place to do business".

Action 1: Identify and develop avenues that provide access to business planning, capital, opportunities for market development and enable commercialization of new food and farming products.

2: Attract entrepreneurs and skilled people to the food and farming cluster.

3: Invest in training and applied research that supports and grows the cluster.

"We are in the consumer satisfaction business. To be successful, you have to innovate to meet the changing needs of Canadian consumers. We think that we have a better chance of being successful if we are innovating to address their concerns."

Richard Glover, President, Pepsico Beverages Canada (producers of juices made from Golden Horseshoe products), National Post, August 2, 2011

D. ENABLE THE CLUSTER

Align policy tools and their application to enable food and farming businesses to be increasingly competitive and profitable.

To attract and retain food and farming businesses, the Golden Horseshoe must be viewed as a desirable place to do business. Canada has a reputation for well-regulated businesses producing safe products. However, regulation can also result in frustrating delays and increased costs of doing business. Within the boundaries of the Golden Horseshoe there are seven regional governments and 36 local municipalities, each of which has a set of planning policies and regulations. Added to that are six conservation authorities and multiple provincial and federal agencies each with separate mandates and regulations. The process for doing business in this cumbersome regulated environment can be streamlined and the cost lowered without compromising public good.

"Farmers are Ontario's biggest land-owning business segment, and need to be at the table either personally or through elected representatives when decisions are made that affect farming."
Owen Roberts, University of Guelph, September 2011

Photo credit: Jamie Reaume

Strategy: Harmonize regulations, provide one-stop shopping for approvals and create an "open for business" environment.

Action 1: Harmonize and improve policy tools in the Golden Horseshoe (eg. provincial policies, Official Plans, taxation, regulations) for consistent implementation responsive to the needs of food and farming businesses.

2: Develop policies and programs to support profitability for food and farming businesses.

3: Establish a food and farming champion to drive a one-window approach in each region to enable food and farming businesses to succeed.

4: Align provincial and municipal taxes and fees to support food and farming businesses and innovation.

E. CULTIVATE NEW APPROACHES

Pilot new approaches to support food and farming in the Golden Horseshoe.

Farming in the Golden Horseshoe has its own set of challenges. Although there are advantages related to the good soil, moderate climate, and access to market, there are disadvantages associated with farming in an urban or near urban environment. The impacts of uncertainty and changing circumstances related to climate change, growth patterns and policy shifts must be considered. Steps need to be taken to build on the advantages and counter the disadvantages of farming in the Golden Horseshoe.

Greenbelts are works in progress around the world. There are valuable lessons to be learned and applied as the concept evolves. One of the prominent goals of greenbelts is to protect and promote food production; however when the Ontario Greenbelt was established, farmers within it were concerned that their interests were not addressed. This Action Plan will address those concerns, monitor the evolution of the Greenbelt and set up a mechanism for providing input to the scheduled 2015 review to ensure the Greenbelt supports food and farming.

The Golden Horseshoe has ideal conditions to try new pilot projects in both food and farming. New relationships and linkages between farmers and processors should be initiated. Small successes in the region can be monitored and scaled up for application in other areas. Partners who have never worked together in the past are now tackling larger issues.

"Ten years ago if anyone had suggested that I would be attending a farmer appreciation event hosted by the Regional Conservation Authority, I would have laughed at them. Yet, there I was, not only attending, but pleased to be making a presentation to celebrate the success of the Peel Rural Water Quality Program."

Nick Ferri, Chair, Peel Agricultural Advisory Working Group and
Chair, Greater Toronto Area Agricultural Action Committee

Strategy: Be a leader in developing programs to support food and farming.

Action 1: Design, pilot and implement a system to acknowledge and reward businesses within the food and farming sector for providing ecological goods and services.

2: Develop and implement realistic local food, beverage, bioproduct and ornamental procurement policies for public and broader public sector agencies.

3: Conduct research and pilot projects specifically designed for urban and near urban areas of the Golden Horseshoe.

4: Actively participate in review of the Greenbelt in 2015.

IMPLEMENTATION

Developing this plan has been an interactive process involving representatives from the public, government and all components of the food and farming cluster. We have listened to these partners, consulted with leaders in the industry and held a Summit to solicit input and suggestions. Our plan is built on what we have heard.

Our five major strategies, confirmed at the Summit, have been divided into eighteen actions which have been subdivided into a series of tasks as outlined on the following pages of this document. Breaking the strategies down in this way allows targeted plans to be developed for implementation.

These targeted plans are summarized as a broader implementation strategy in which we have identified potential partners, proposed timelines for completion of each task and established measures of success. The **"Implementation Strategy"** can be found at www.gtaaac.ca.

This plan and our implementation strategy are living documents. As we move forward, we will expand our partnerships. Revisions and adjustments will be made as tasks are finished and new ones are begun. However the plan will be the foundation for our work. Working within the ten year timeframe and using the established measures of success will keep us focused and inspired.

Photo Credit: http://www.flickr.com/photos/martin_uj/5010343832/in/set-72157624875894085/lightbox/

A. GROW THE CLUSTER

Strategy

Grow the cluster by coordinating economic development, finding the voids, filling the gaps, and building on strengths in the Golden Horseshoe.

Action

1
Implement the Golden Horseshoe Food and Farming Action Plan.

2
Align and strengthen dedicated economic development and planning resources to support the food and farming cluster in the Golden Horseshoe.

3
Develop solutions to close gaps in the infrastructure required to support the food and farming industry

4
Expand existing and cultivate new markets by leveraging the cultural diversity of the Golden Horseshoe.

Tasks

- Create the Golden Horseshoe Food and Farming Alliance (GHFFA) after determining effective governance arrangements to oversee implementation of the Action Plan.
- Develop communications plan and materials
- Deliver a call to action to engage partners and key stakeholders.
- Confirm committed, capable partners who can deliver results.
- Proactively facilitate and monitor implementation of Action Plan.
- Report on outcomes to partners and stakeholders and celebrate wins regularly.

- Ensure our municipal partners in the Golden Horseshoe have a committed food and farming economic development function.
- Align economic development and planning roles to enable sector growth.
- Support establishment of a forum where economic development officers and planners work together with their provincial and federal counterparts.

- Identify the production, processing, distribution and marketing infrastructure required to achieve integration between different parts of the cluster.
- Complete and maintain an inventory of existing production, processing, distribution and marketing infrastructure that supports food and farming activities.
- Identify gaps in infrastructure that are inhibiting growth in food and farming operations.
- Attract investment to create or renew infrastructure to address identified needs.

- Review existing documentation and research on ethnic markets and identify research gaps
- Undertake demand analysis for world foods in the Golden Horseshoe.
- Identify and target food retailers, food processors and foodservice to test Golden Horseshoe products for domestic and global markets.
- Communicate the findings of domestic demand analysis and international opportunities to key businesses in the value chain.

B. LINK FOOD, FARMING AND HEALTH

Strategy

Work closely with a broad range of stakeholders to educate and inform consumers about healthy food products from the Golden Horseshoe.

Action

1
Increase local food literacy with a focus on youth.

2
Secure the mandate for local health units within Golden Horseshoe communities to promote increased consumption of local food.

3
Expand the use, management and impact of the Foodland Ontario brand.

Tasks

- Investigate and compile listing of current programming being offered relating to food literacy.
- Design and offer updated activities through the primary and secondary education system to engage students in healthy nutrition, agricultural awareness and good food choices.
- Support and promote school breakfast and lunch programs that encourage healthy food choices using local food products.
- Support and promote healthy local food choices by food service providers at colleges and universities.
- Support and promote healthy local food choices to youth.

- Assist Public Health staff to educate the community about the contribution that local food makes to healthy eating choices.
- Encourage marketing of Golden Horseshoe food and food products in health promotion programs.

- Expand the Ontario branding to include value added products using locally grown ingredients.
- Support labeling innovation that gives consumers more information about local food choices such as point of origin, date of harvest and processing activity.
- Encourage increased on-going training of store staff to provide accurate representation of local foods.
- Conduct public campaigns aimed at informing consumers about local food and ornamental product choices.

C. FOSTER INNOVATION

Strategy

Position the agriculture, food processing, food retail and food service sector in the Golden Horseshoe as "the place to do business".

Action

1
Identify and develop avenues that provide access to business planning, capital, opportunities for market development and enable commercialization of new food and farming products.

2
Attract entrepreneurs and skilled people to the food and farming cluster.

3
Invest in training and applied research that supports and grows the cluster.

Tasks

- Communicate and build awareness among key stakeholder groups to support the action.
- Complete an inventory of commodities and processing capabilities available in the Golden Horseshoe in order to match buyers with sellers of food and farming products.
- Support incubators that provide access to capital, processing line time and expert advice for entrepreneurs in food and farming.
- Work with food retailers to develop an innovation marketplace where new products can be introduced to consumers rapidly and cost effectively for evaluation and testing.
- Create a pool of government and private sector funds, to focus on investing in priorities such as gaps in food and farming infrastructure and technologies that are targeted to growth markets.

- Market the Golden Horseshoe as the place to invest in food and farming.
- Develop cooperative, internships, apprenticeships, scholarship and mentoring programs that introduce students to careers in food and farming.
- Encourage the development of a seed fund to compete globally for innovative and talented entrepreneurs and researchers in food and farming

- Work closely with the food and faming sector to ensure that the Ontario colleges and universities are providing knowledge and skills that meet the needs of the sector.
- Build awareness and support for publicly funded applied research that will give food and farming firms in the Golden Horseshoe cluster a competitive advantage in production and marketing

D. ENABLE THE CLUSTER

Strategy

Harmonize regulations, provide one-stop shopping for approvals and create an "open for business" environment.

Action

1
Harmonize and improve policy tools in the Golden Horseshoe (e.g. provincial policies, Official Plans, taxation, regulations) for consistent implementation responsive to the needs of food and farming businesses.

2
Develop policies and programs to support profitability for food and farming businesses.

3
Establish a food and farming champion to drive a one-window approach in each region to enable food and farming businesses to succeed.

4
Align provincial and municipal taxes and fees to support food and farming businesses and innovation.

Tasks

- Encourage jurisdictions responsible for land and water management within the Golden Horseshoe to harmonize regulations in a manner that is responsive to the needs of near urban, urban and rural farming operations.
- Review regulations and policies to identify issues and conflicts, and work to resolve them.
- Update land use policy to provide flexibility for value retention and valued added food and farming businesses. (e.g. similar to Niagara Region)
- Use various planning tools (e.g. community improvement plan approach) to foster supports to farming.
- Enhance coordination 'Farm Fresh' and 'Culinary Trail' programs to showcase the celebration of farming to residents, tourists and visitors to the region.
- Appoint a senior official in each municipal jurisdiction to assist food and farming entrepreneurs to navigate approval processes and provide feedback to all regulatory authorities on ways to expedite review and approval processes.
- Define on-farm value retention and value added activities as agricultural uses for taxation purposes.
- Work to secure property taxation policies that encourage long-term land rental agreements for agriculture.
- Standardize development charges for buildings used for agricultural purposes throughout the Golden Horseshoe.
- Encourage and enhance financial incentives for innovation in food processing sector

E. CULTIVATE NEW APPROACHES

Strategy

Be a leader in developing programs to support food and farming.

Action

1
Design, pilot and implement a system to acknowledge and reward businesses within the food and farming sector for providing ecological goods and services.

2
Develop and implement realistic local food, beverage, bio-product and ornamental procurement policies for public and broader public sector agencies.

3
Conduct research and pilot projects specifically designed for urban and near urban areas of the Golden Horseshoe.

4
Actively participate in review of the Greenbelt in 2015.

Tasks

- Research, design, pilot and implement different approaches to acknowledge and reward farmers for the provision of ecological goods and services.
- Design and implement a program to educate the public about food and farming environmental best practices.
- Establish a program, at the Golden Horseshoe regional level, to acknowledge and promote environmentally progressive practices in the food and farming sector.

- Develop and disseminate consistent, realistic local food, beverage, bio-product and ornamentals procurement policies for public agencies.
- Monitor implementation of procurement policies and changes in procurement.
- Create a recognition program for broader public sector for best practices in food procurement.

- Track the trends (e.g. shifting demographics and preferences, changing climate, international trade and economic conditions and development pressures) and assess impacts on food and farming.
- Promote research into varietal choices, growing practices, harvest handling, alternative energy and processing practices in the region.
- Track trends related to green spaces, community gardens and urban agriculture.
- Develop a land rental agreement that permits long-term secure rental of public lands for food production.
- Maintain and preserve agricultural production on public lands including the new Rouge Park.

- Prepare a credible position for improvements to the Greenbelt Plan policies and/or their implementation from a food and farming perspective.
- Track relevant indicators inside and outside Greenbelt to assess its impact on the food and farming sector.
- Engage the food and farming sector to prepare for and be part of the review process.

MOVING FORWARD

COORDINATION AND COOPERATION

While other groups and agencies are already addressing many of the issues that have been identified here, their actions are being taken in separate silos. Coordination, cooperation and maximizing use of resources will be key requirements in implementing this action plan. Building on and not duplicating existing efforts, the plan will achieve success through cooperation among partners. The plan will be aligned with complementary initiatives such as the National Food Strategy. Not static, the plan is dynamic and living like the cluster it promotes. Therefore, the Golden Horseshoe Food and Farming Action Plan 2021 must be reviewed and updated on an ongoing basis.

LEADERSHIP

Because the implementation of the Action Plan involves a series of actions that will occur under the leadership of different champions, there will be a vital role for an overarching body committed to monitoring the process, working with the partners on their different tracks, measuring success and making adjustments when required. In order to implement the Golden Horseshoe Food and Farming Action Plan 2021, a new governance model will be created.

Comprised of representatives of the Greater Toronto Area Agricultural Action Committee, the City of Hamilton, the Greenbelt Foundation and the Region of Niagara, the **Golden Horseshoe Food and Farming Alliance (GHFFA)** will include farmers, industry representatives, land use planners, economic development officers, politicians and agency representatives, all with a common interest: fostering the food and farming cluster in the Golden Horseshoe. To oversee the implementation of this Action Plan, support from the seven senior municipal governments in the Golden Horseshoe, committed partners at the provincial and federal levels, and the food and farming cluster will be essential.

"Agriculture is the backbone of a strong and healthy Canada. It's one of this country's top five industries, contributes $130 billion to our economy each year and provides one in eight jobs. The bottom line is that agriculture matters to Canada."

Greg Stewart, President and CEO of Farm Credit Canada, August 30, 2011

Photo credit: http://www.ontariofoodcluster.com/

SUCCESSFUL IMPLEMENTATION

To be successful, the actions must be implemented by:

- Assigning lead responsibilities to committed, capable partners who can provide the necessary leadership, sustain consensus and achieve results;
- Establishing clear goals and corresponding measures for success;
- Establishing timelines for important implementation milestones; and
- Monitoring progress achieved, reporting on outcomes, and celebrating wins.

NEXT STEPS

There is much to be done. We are determined that in 10 years we will have achieved our vision. We are convinced that the Golden Horseshoe will be:

- globally renowned as a vibrant food and farming cluster, characterized by profitable farming operations and a thriving hub of food processing, food retail and food service businesses; and
- recognized and valued for its extensive research capacity, innovative technology, and a wide range of healthy and safe products.

http://www.greenbelt.ca/sites/default/files/uploads/halton-0846.jpg

Steering Committee Membership

Nick Ferri
Chair, GTA AAC , Peel Federation of Agriculture

Peter Lambrick
Chair, Steering Committee for Food and Farming: An Action Plan 2021, Halton Region Federation of Agriculture

Sue Monarch
City of Hamilton

Fiona Nelson
Toronto Food Policy Council

Kathy Macpherson
Friends of the Greenbelt Foundation

Jamie Reaume
Holland Marsh Growers Association

Patrick Robson
Region of Niagara

Barb Shopland
Co-ordinator / Committee Member

Marlene Werry
Region of Durham

Janet Horner
Executive Director, Greater Toronto Agricultural Action Committee

This report is the result of many individuals and groups too numerous to mention here. Particular thanks is given to the Working Group of Planners and Economic Developers for the GTA AAC who helped our consultant craft the document at various stages in the project.

Golden Horseshoe Agriculture & Agri-Food Strategy

Food & Farming: An Action Plan 2021

Funding Provided By:

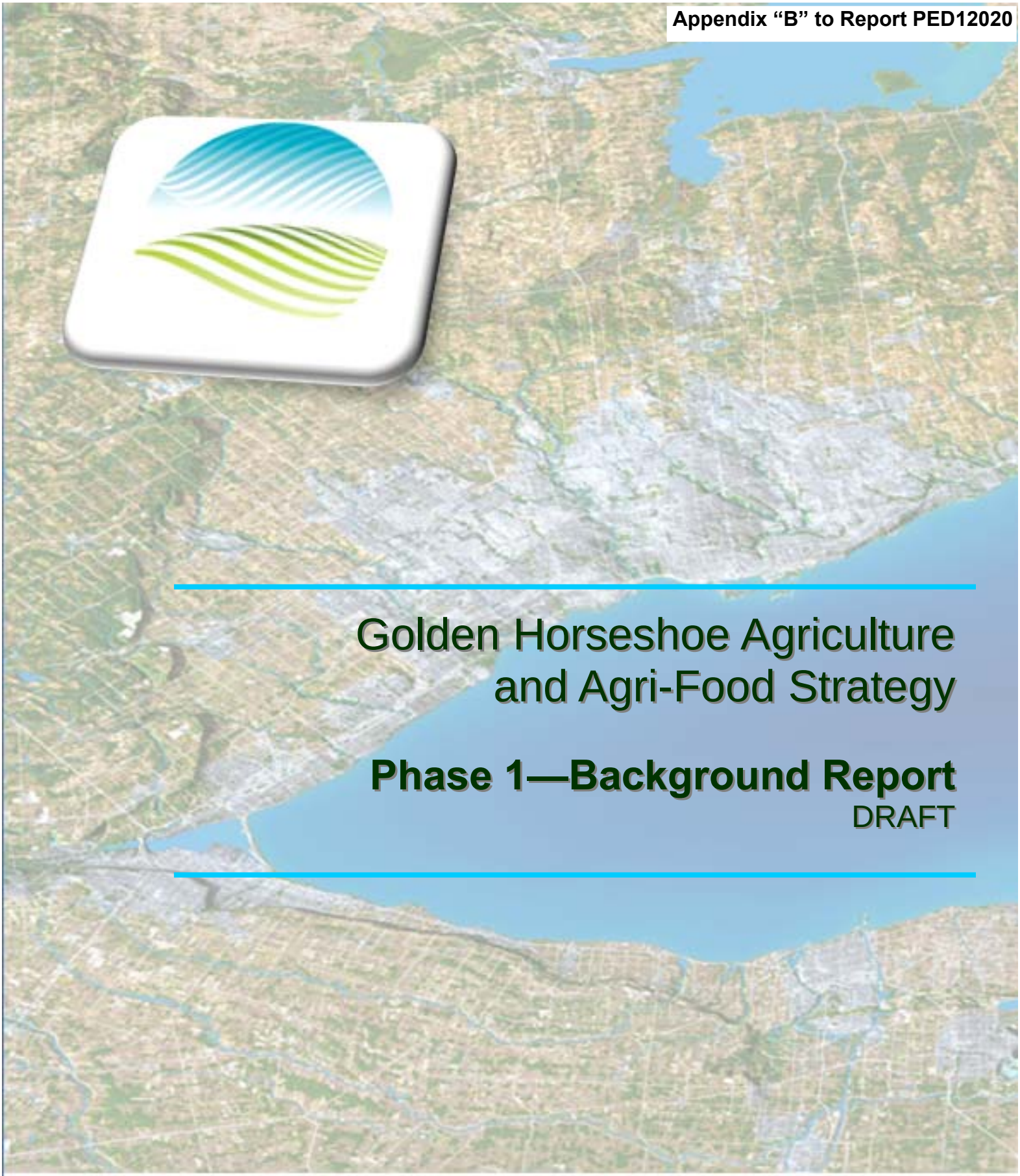
Agricultural Adaptation Council

Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada

Peel Federation of Agriculture
Halton Federation of Agriculture
Durham Federation of Agriculture

York Federation of Agriculture
Hamilton - Wentworth Federation of Agriculture
Niagara North Federation of Agriculture



Golden Horseshoe Agriculture and Agri-Food Strategy

Phase 1—Background Report

DRAFT

Released January 2011

Finalized December 2011

PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING

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Chapter 1 - Introduction

1.1. Purpose

In August 2009, Vineland Research and Innovation Centre, in partnership with the Greater Toronto Area Agricultural Action Committee (GTA AAC), hosted a facilitated session with relevant stakeholder organizations to discuss the coordination of agricultural sustainability issues in the Province of Ontario. As the attendees shared mandates related to the sustainability of agriculture, it became apparent that they were addressing similar challenges and investing in similar projects. During their discussion, representatives from agricultural jurisdictions around the Golden Horseshoe (GH) discussed the various gaps and potential solutions for agricultural sustainability. They agreed that a strategy and action plan were needed for the whole of the Golden Horseshoe including the geographic area of the Holland Marsh. With the establishment of the Greenbelt it was agreed that the timing was opportune to establish a progressive strategy to enhance and promote the agricultural and agri-food businesses cluster in the Golden Horseshoe. This report is the first step in responding to this challenge. It provides the background and analysis to support a Golden Horseshoe Food and Farming Strategy.

1.2. Background

The Golden Horseshoe is an area of high productivity: the combination of soils and climate within its boundaries support an outstanding growing environment. The region is home to the only two designated specialty crop areas in the province.

The area also supports the second largest agri-food cluster in North America comprised of hundreds of food processing, warehousing, distribution, service and retail businesses. The Golden Horseshoe is a unique food basket where food is grown, processed and delivered to market. The creation of the Greenbelt in 2005 ensures that there will be land to sustain agricultural production in the region into the future if the circumstances are there to sustain it. A strategy to link and support all components of the cluster will sustain it and ensure that it is an economic engine for growth in food and farming related activities.

Despite the richness of the Golden Horseshoe food and farming cluster, its importance and value as a resource for Canadians tends to be undervalued. The Golden Horseshoe is also the fastest growing region of Canada. In the competition for land uses, development tends to trump agricultural production. Other, more homogeneous sectors such as the auto sector tend to get more attention than the food and farming cluster. A strategy is required to ensure that this agri-food resource is appreciated, protected and nurtured for the benefit of the present and future generations.

In the winter of 2010, the GTA AAC issued a Request for Proposal (RFP) to support the creation of a 10-year strategy and action plan. The purpose of the 10-year Strategy and Action Plan will be to guide decision making, investments, strategic alliances, and processes to support sustainable, profitable,

dynamic and healthy agricultural development including the development and enhancement of the agri-food value chain throughout the Golden Horseshoe and Holland Marsh areas.

The strategy will enable community leaders to work with senior government decision makers and other stakeholders to support growth and investment in the agriculture and food sector in the Golden Horseshoe. The RFP anticipated that the strategy would be developed through a three phase process.

Phase 1 required the preparation of a background report to identify and consolidate existing knowledge and research on the food and farming cluster in the Golden Horseshoe. This report is the outcome of Phase 1.

Phase 2 focused on obtaining input on issues and strategies to enhance the understanding of the cluster and identify elements that should be incorporated in a strategy through consultation with experts and stakeholders.

Phase 3 is the final stage during which a clear and comprehensive strategy supported by an implementation plan will be finalized.

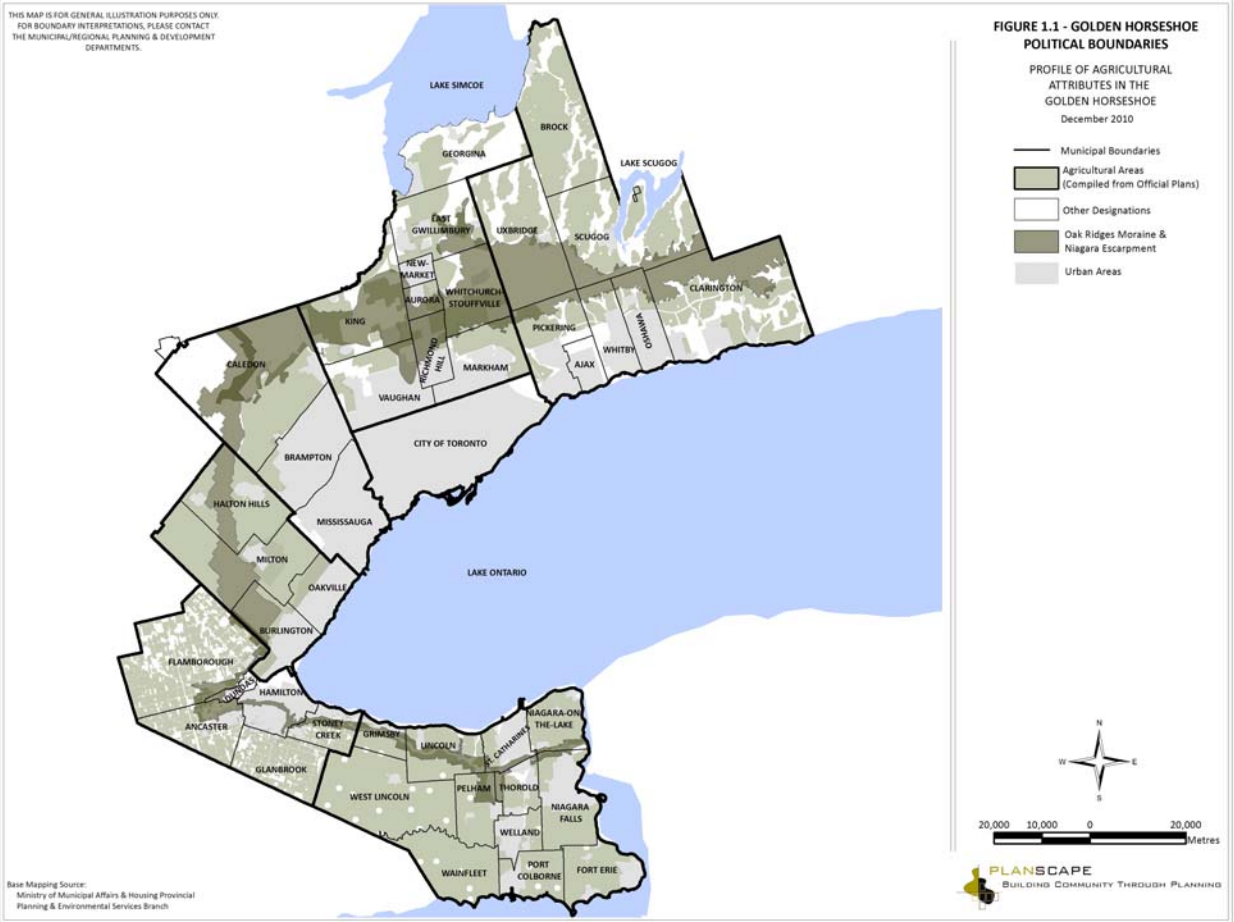
1.3. Study Objective

The purpose of this report is to provide an overview of existing relevant research about the agri-food cluster in the Golden Horseshoe. This overview was developed by reviewing existing reports and interviewing select community and agriculture/agri-food sector representatives.

Specifically this report provides insight into:

- existing agriculture/agri-food enterprises and opportunities;
- challenges associated with expanding and diversifying agriculture/agri-food products;
- the extent to which an agriculture and agri-food value chain exists in the Golden Horseshoe;
- all facets of agriculture, food production and processing in the study area;
- opportunities and challenges for commercial agriculture and food processing, crops for export, ethno-cultural and specialty crops, bio-based production and processing, value-added enterprises, and tourism that drive regional economic development;
- alternative and complementary uses for agricultural lands;
- current agriculture and food policies, charters, strategy and action plans, and procurement policies at federal, provincial, city and regional levels;
- the health benefits of the food produced by farmers in Golden Horseshoe;

- the economic development impact agriculture has in the study area and in the provincial economy;
- the potential financial impact of imported commodities and processed foods that could be supplied from within the Golden Horseshoe;
- the characteristics of comparative regions of the world including the programs, legislation and regulations that make them flourish;
- the potential role of publicly owned lands in support of agricultural activity; and
- issues of food sovereignty and security within the Golden Horseshoe.



1.4. Study area

The study area encompasses the Golden Horseshoe; an area that includes the Regions of: Durham, York, Peel, Halton and Niagara, the Cities of Toronto and Hamilton and the area of the Holland Marsh. The study area is shown on **Figure 1.1**. References to "the region" throughout this report refer to the Golden Horseshoe.

1.5. Audience

This report is intended to provide the input required to develop a comprehensive, effective strategy for supporting and growing the Golden Horseshoe Agri-Food cluster over the next ten years. Therefore, the audience for this report is the organizations and agencies who will contribute to the strategy.

There are multiple potential partners for developing and implementing this strategy. As part of the background research to develop this report, a list of governments, agencies, organizations, associations, committees, enterprises, boards and community groups of interest that contribute to or have influence on the agriculture and agri-food value chain was compiled and is attached as an appendix to this report. The sheer volume of entries underscores the complexity and the extent of the agri-food cluster in the Golden Horseshoe.

1.6. Study Team

In assembling the study team, there was recognition that the project is ambitious and requires a broad range of expertise to provide a sound and comprehensive product. To produce a strategic plan that is successful in supporting and promoting agriculture and agri-food as an essential element of life in the Golden Horseshoe, a diverse team was formed with the following skills:

- communication skills to bring attention to the project and raise the profile of agriculture and agri-food production in the Golden Horseshoe;
- scientific expertise to educate the public and dispel misconceptions about modern agriculture;
- economic expertise to address the complexities of the agriculture and agri-food cluster;
- facilitation skills to obtain meaningful input as the planning process evolves; and
- policy skills to recommend effective actions to support agriculture and agri-food.

To achieve this depth, a committed project team with strong research, scientific, analytical, management, engagement and communications skills came together. Members of the team included Planscape, Regional Analytics, Jayeff Partners, The Soil Resource Group (SRG), and Mary Wiley Communications and Marketing.

1.7 Definitions

To move forward with the assessment of the food and farming cluster in the Golden Horseshoe, it is critical to provide a clear understanding of the definitions of certain commonly used terms associated with the cluster.

Agriculture – is a term which refers to primary production. A standard definition applied to the activity in Ontario is the growing of crops, including nursery and horticultural crops; raising livestock; raising other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including accommodation for full-time farm labour when the size and nature of the operation requires additional employment.[1]

Agri-food – Used in the name of the federal department, Agriculture and Agri-Food Canada, this term encompasses the farm input and service sector, primary agriculture, food, beverage and tobacco processing, wholesale, distribution and retail food industries and food service. This term includes "agri-products," also called "bio-products," which are made from agriculturally sourced inputs but are not food for human consumption. An example would be biodiesel, made from the oil obtained when soybeans are crushed and that oil is used for fuel.

Cluster – a **cluster** is defined as a geographic region with a sufficient number of activities with similar or related needs and interests to generate external economies of scale and produce innovation.

Food and Farming cluster – A food and farming cluster is comprised of enterprises and institutions involved in growing, harvesting, processing and distributing food, beverage and bioproducts derived from agriculture. The phrase is used to describe the combined activities and outputs of primary production (farmers), food processing, food service providers (including hotels, restaurants, and institutions), food wholesalers/distributors and food retailers/ merchandisers and the input suppliers and service providers to the cluster. Essential supporting activities that are a vital part of the cluster are those that provide services, impact skills and training, undertake research and innovation and enable commercialization.

Value chain - By contrast with the traditional supply chain, the value chain concept is a completely different system of organizational design and intent, through which independent partners do business with each other. A value chain creates a collaborative culture by building communication, trust and interdependence rather than independence. The value chain typically is short with few chain partners. It is focused on a certain markets or customers. The sharing of ideas between chain partners facilitates co-innovation and product differentiation. In complete contrast with the traditional supply chain, the value chain philosophy is: '***How can we collectively grow the pie rather than compete for our individual slice'.*** It is focused on chain efficiency first and component efficiency second.[2]

Sustainability - was defined at the 1987 World Commission on Environment and Development as development ***that meets the needs of the present without compromising the ability of future generations to meet their own needs.***[3]

This definition draws from the "seventh generation" philosophy of the Native American Iroquois Confederacy, mandating that chiefs always consider the effects of their actions on their descendants seven generations in the future.

Corporate definitions of "sustainability" generally encompass economic and social factors as well as environmental ones.

Food and farming cluster – this reference covers the five elements that the federal government has identified as comprising the agri-food economic cluster.

1.8. Report Structure

The report was structured in response to the terms of reference with different members of the team contributing to different sections. The authors or contributors to specific sections are identified in the **Appendix 1**.

The research available on food and farming clusters generally and the Golden Horseshoe specifically is considerable. To ensure that the study team had a comprehensive understanding of other relevant work, a scan was done of relevant research and the findings were incorporated in this report. A data base listing of all of the publications and sources reviewed was prepared and is summarized in the bibliography. Where a source was specifically used, it is referenced in the report.

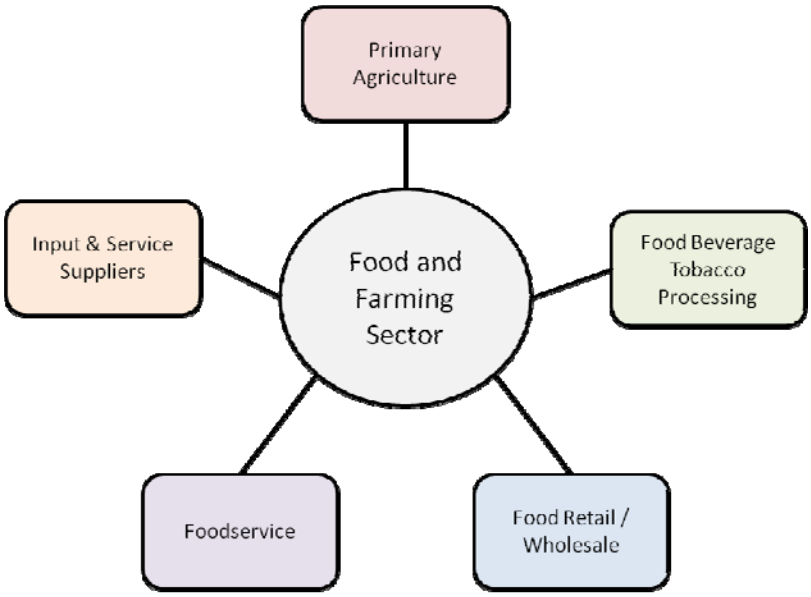
1. The results of the consultation summit held in phase 2 are included as an addendum in Chapter12 of this report.
2. Ontario Provincial Policy Statement 2005, Section 6 Definitions, pg 29.
3. James Parsons, *Supply Chain Relationships And Value Chain Design,* New Zealand Nuffield Farming Scholarship Trust, January, 2009, available at http://www.vcmtools.ca/narrator.php
4. 1987 World Commission on Environment and Development - also referred to as the Bruntland Commission

Chapter 2 - Food and Farming

2.1 Introduction

The Food and Farming cluster includes "the farm input and service supplier industries, primary agriculture, food beverage and tobacco (FTB) processing, wholesale, distribution and retail food industries and food service businesses". The next two chapters examine the components of the Food and Farming cluster in the Golden Horseshoe.

This chapter addresses input and summarizes the trends in primary production; Chapter Three identifies major trends related to food processing and distribution. The trends identified underscore why the Golden Horseshoe is a logical entity for a strategy.



2.2 Primary Production

Agriculture in the Golden Horseshoe[1] is long established and diverse. The moderating influences of Lake Ontario and Lake Simcoe, together with the physiography, combine to make the area fertile and productive. The Golden Horseshoe (GH) is home to the only two specialty crop areas designated by the Province, the Holland Marsh and the Niagara Peninsula Tender Fruit and Grape Lands. A review of the statistics associated with primary agriculture in the Golden Horseshoe reveals an area that continues to make a significant contribution to agricultural production in Ontario.

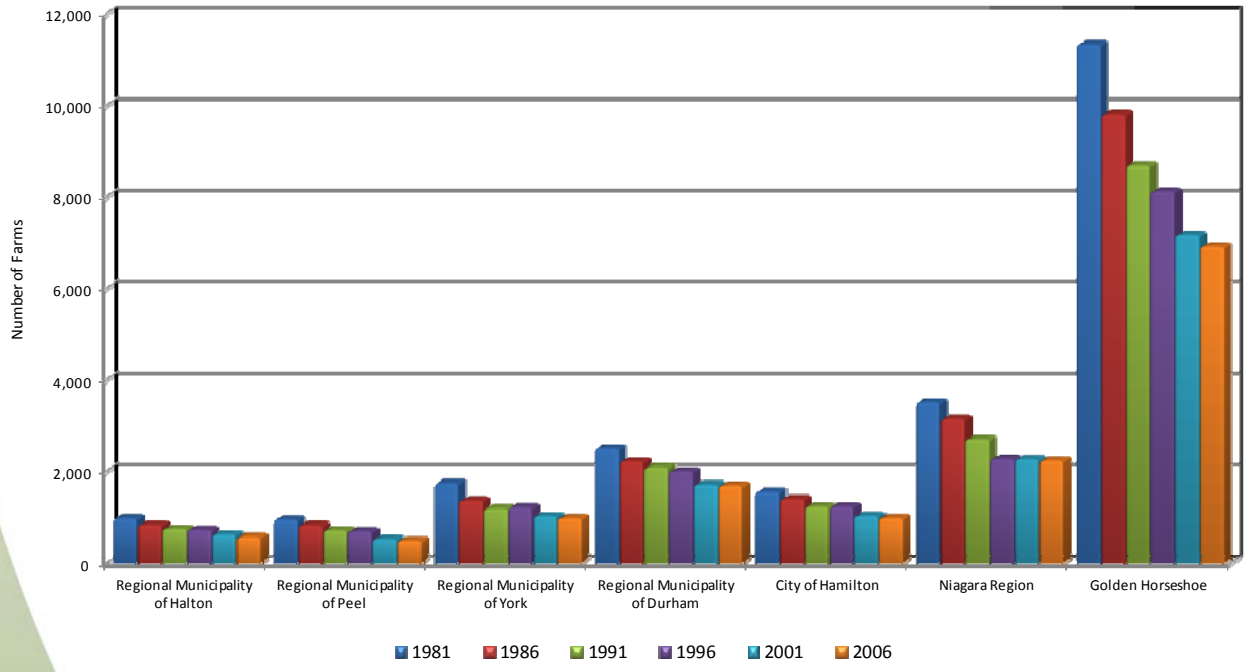
2.2.1 Number of Farms

The number of farms in Ontario has been declining steadily over time; the rate of decline in the Golden Horseshoe has been higher than the provincial average. The decline in the area slowed between 2001 and 2006 (**Figure 2.1 a & b**) but continued to be higher than the provincial rate of decline. There was considerable variation among the regions of the Golden Horseshoe. Halton and Peel had high rates of decline. York and Hamilton were slightly lower and Durham and Niagara were relatively stable. In terms of absolute numbers, between 2001 and 2006, the number of farms declined by 244.

Figure 2.1a – Number of Farms, showing Percentage Change, 1981 to 2006

	Number of Farms						Percentage Change	
Geographic Location	**1981**	**1986**	**1991**	**1996**	**2001**	**2006**	**1981 - 2001**	**2001 - 2006**
Ontario	82,448	72,713	68,633	67,520	59,728	57,211	-28%	-4%
Regional Municipality of Halton	969	834	744	720	619	566	-36%	-9%
Regional Municipality of Peel	942	824	711	689	522	483	-45%	-7%
Regional Municipality of York	1,741	1,361	1,185	1,211	1,020	972	-41%	-5%
Regional Municipality of Durham	2,495	2,218	2,090	2,001	1,709	1,686	-32%	-1%
City of Hamilton	1,553	1,393	1,225	1,228	1,026	975	-34%	-5%
Niagara Region	3,512	3,147	2,706	2,269	2,266	2,236	-35%	-1%
Golden Horseshoe	11,336	9,807	8,686	8,118	7,162	6,918	-37%	-3%

Figure 2.1b – Number of Farms, 1981 to 2006



Starting in 1986, for confidentiality reasons, Statistics Canada began to amalgamate City of Toronto Farm Information into York Region. Source: Statistics Canada, Census of Agriculture, 1981 to 2006.

The major factor that has impacted farm numbers is urbanization. However, there are other factors including farm amalgamations (increasing the scale), an aging farm population, conversion to country estates, declining commodity prices, high cost of land, barrier to new entrants posed by the high capital cost of becoming established, and conflicts associated with farming in areas close to urban development.

It is notable that the areas with the greatest stability are those furthest from the large urban centres, Niagara and Durham.

2.2.2 Farmland Area

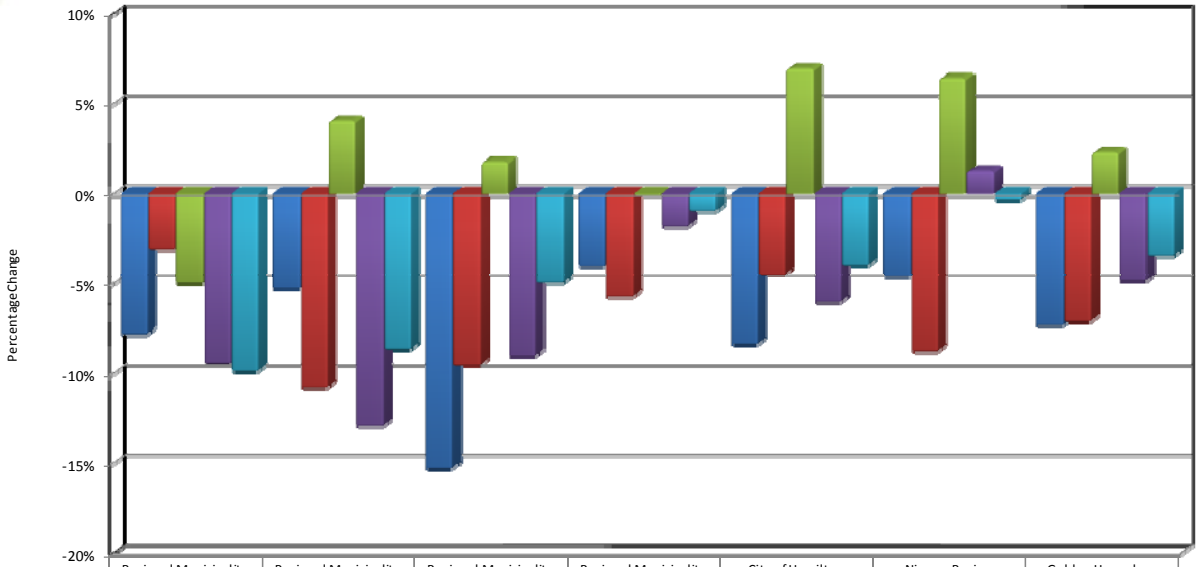
As shown on **Figure 2.2 a & b**, the acres of farmland in the Golden Horseshoe declined by in excess of 38,000 between 2001 and 2006. Again the largest decline was in Peel and Halton, with Niagara and Durham experiencing a negligible decline. In Hamilton the amount of farmland declined by 4%, lower than the 5% decline in number of farms.

Figure 2.2a – Farmland Area , showing Percentage Change, 1981 to 2006

	Farmland Acres						Change In Farmland Area (Acres)		Percentage Change	
Geographic Location	1981	1986	1991	1996	2001	2006	1981 - 2001	2001 - 2006	1981 - 2001	2001 - 2006
Ontario	14,923,280	13,953,009	13,470,653	13,879,565	13,507,357	13,310,216	-1,415,923	-197,141	-9%	-1%
Regional Municipality of Halton	129,030	118,805	115,036	109,187	98,758	88,899	-30,272	-9,859	-23%	-10%
Regional Municipality of Peel	136,856	129,476	115,352	120,026	104,433	95,289	-32,423	-9,144	-24%	-8.8%
Regional Municipality of York	248,945	210,604	190,274	193,686	175,965	167,076	-72,980	-8,889	-29%	-5%
Regional Municipality of Durham	373,611	358,168	337,222	336,857	330,286	326,702	-43,325	-3,584	-12%	-1.1%
City of Hamilton	158,519	145,083	138,382	147,980	138,879	133,205	-19,640	-5,674	-12%	-4%
Niagara Region	248,655	236,942	215,939	229,832	232,817	231,728	-15,838	-1,089	-6%	-0.5%
Golden Horseshoe	1,295,616	1,199,078	1,112,205	1,137,568	1,081,138	1,042,899	-214,478	-38,239	-17%	-4%

NOTE: Data for farmland area is calculated on all farms reporting. Source: Statistics Canada, Census of Agriculture, 1981 to 2006.

Figure 2.2b – Farmland Area , showing Percentage Change, 1981 to 2006



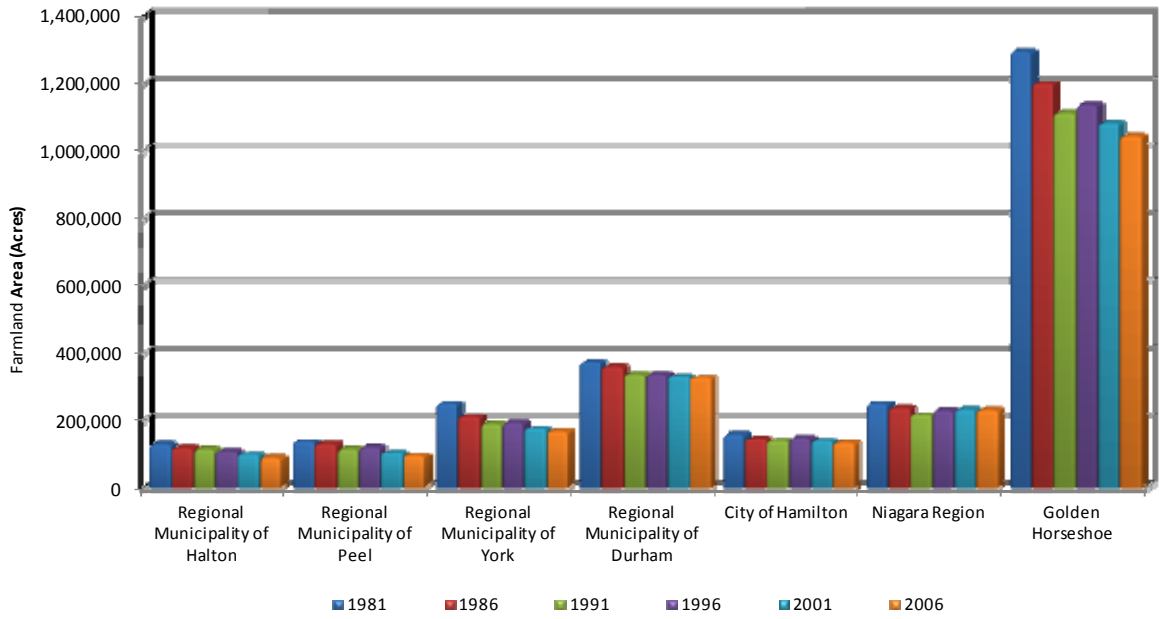
	Regional Municipality of Halton	Regional Municipality of Peel	Regional Municipality of York	Regional Municipality of Durham	City of Hamilton	Niagara Region	Golden Horseshoe
1981 - 1986	-8%	-5%	-15%	-4%	-8%	-5%	-7%
1986 - 1991	-3%	-11%	-10%	-6%	-5%	-9%	-7%
1991 - 1996	-5%	4%	2%	0%	7%	6%	2%
1996 - 2001	-10%	-13%	-9%	-2%	-6%	1%	-5%
2001 - 2006	-10%	-9%	-5%	-1%	-4%	-0.5%	-4%

NOTE: Data for farmland area is calculated on all farms reporting.

Source: Statistics Canada, Census of Agriculture, 1981 to 2006.

Between 1991 and 1996, all regions except Halton and Durham experienced an increase in the amount of farmland. As illustrated in **Figure 2.3** change in farmland area is relatively stable in Niagara. In the Holland Marsh the amount of land under production increased by 3,000 acres or 38% between 2001 and 2006.

Figure 2.3 – Farmland Area (Acres), 1981 to 2006



NOTE: Data for farmland area is calculated on all farms reporting.

Source: Statistics Canada, Census of Agriculture, 1981 to 2006.

2.2.3 Land Ownership

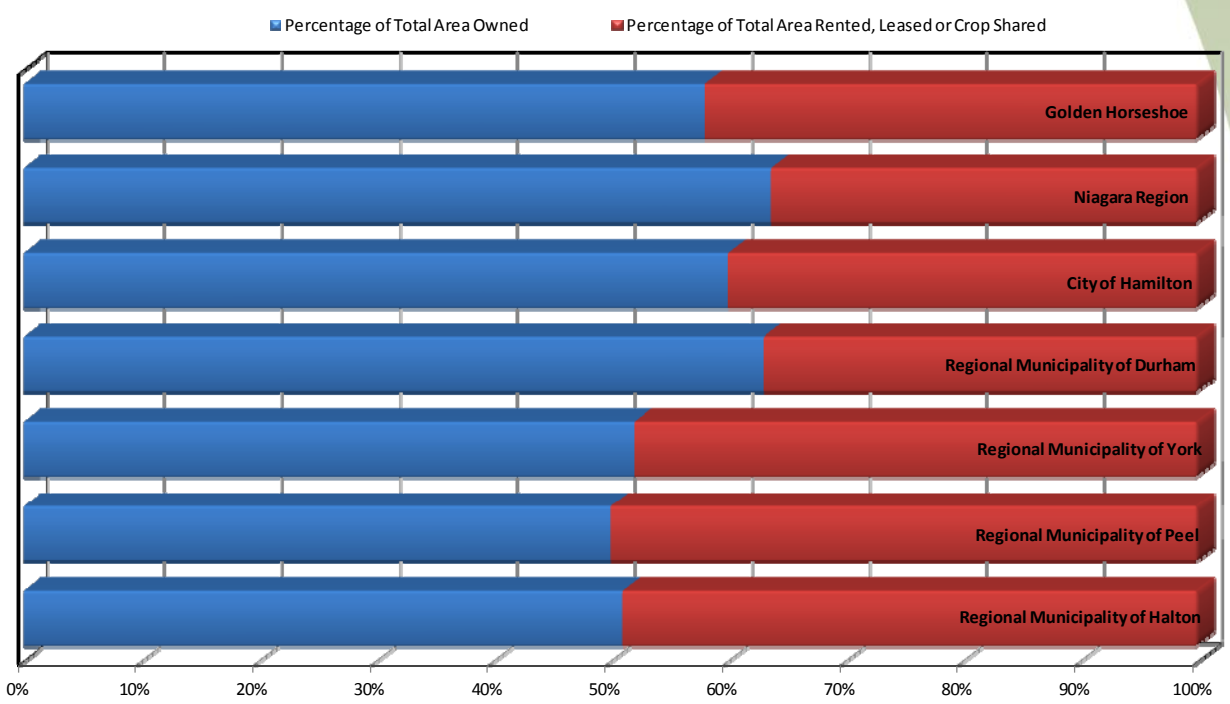
It is difficult to get a clear picture of land ownership. Numbered companies, options to purchase and the practice of holding properties in separate ownership all make it difficult to analyze ownership patterns. Despite these difficulties, it is clear that land rental rates in the GH are significantly higher than in other parts of the province. Rates are highest in Peel; lowest in Niagara. However it is also notable that between 2001 and 2006, the level of rental land fell in all of the regions except Durham where it stayed the same. This trend could be related to a decline in the amount of farmland and be directly related to a decrease in the amount of land available to rent.

Figure 2.4a – Farmland Acres Owned and Rented, 1991 to 2006

Geographic Location 2006	Total Area (Acres)	Total Area Owned (Acres)	Percentage of Total Area Owned	Total Area Rented/Leased or Crop Shared From all Sources	Percentage of Total Area Rented, Leased or Crop Shared
Ontario	13,310,216	9,613,544	72%	4,090,794	28%
Regional Municipality of Halton	88,899	45,498	51%	45,522	49%
Regional Municipality of Peel	95,289	47,485	50%	48,096	50%
Regional Municipality of York	167,076	86,568	52%	76,827	48%
Regional Municipality of Durham	326,702	206,928	63%	119,463	37%
City of Hamilton	133,205	80,536	60%	57,424	40%
Niagara Region	231,728	152,459	66%	87,007	38%
Golden Horseshoe	1,042,899	619,474	58%	434,339	42%
2001					
Ontario	13,507,357	9,373,178	69%	4,114,958	31%
Regional Municipality of Halton	98,758	45,823	46%	60,200	54%
Regional Municipality of Peel	104,433	48,069	46%	63,722	54%
Regional Municipality of York	175,965	75,136	43%	107,513	57%
Regional Municipality of Durham	330,286	207,466	63%	124,793	37%
City of Hamilton	138,879	79,399	57%	59,480	43%
Niagara Region	232,817	141,716	61%	91,101	39%
Golden Horseshoe	1,081,138	597,609	55%	506,809	45%
1996					
Ontario	13,879,565	9,764,607	70%	3,582,663	30%
Regional Municipality of Halton	109,187	49,987	46%	62,062	54%
Regional Municipality of Peel	120,026	53,604	47%	59,367	53%
Regional Municipality of York	193,686	86,173	44%	98,427	56%
Regional Municipality of Durham	336,857	212,064	63%	108,616	37%
City of Hamilton	147,980	84,847	57%	63,133	43%
Niagara Region	229,832	147,355	64%	82,477	36%
Golden Horseshoe	1,137,568	634,030	56%	474,082	44%
1991					
Ontario	13,470,653	9,887,990	73%	3,582,663	27%
Regional Municipality of Halton	115,036	52,974	46%	62,062	54%
Regional Municipality of Peel	115,352	55,985	49%	59,367	52%
Regional Municipality of York	190,274	91,847	48%	98,427	52%
Regional Municipality of Durham	337,222	228,606	68%	108,616	32%
City of Hamilton	138,382	87,180	63%	51,202	37%
Niagara Region	236,942	165,453	70%	71,489	30%
Golden Horseshoe	1,133,208	682,045	60%	451,163	40%

Source: 2006 Statistics Canada – Census of Agriculture - Special Order; 2001 Statistics Canada – Catalogue No. 95F0301XIE; 1996 Statistics Canada – Agriculture Profile of Ontario – Catalogue No. 95-177-XPB; 1991 Agricultural Statistics for Ontario – OMAFRA – Publication 20.

Figure 2.4b – Farmland Acres Owned and Rented, 2006



Source: 2006 Statistics Canada – Census of Agriculture - Special Order

There are many reasons for a higher incidence of rental land in particular areas. Higher land values, resulting from a variety of circumstances, can make it difficult for farmers to acquire land at a price that makes farming economically viable, and so they rent instead. Land available for rent may be held by retired farmers, developers, speculators or by people seeking a rural lifestyle who do not want to farm. The ability to qualify for lower tax rates if the land is in production, makes it desirable for those not farming their land to rent it to operators who will farm it. This arrangement gives the farmer use of the land at a reasonable price and allows the owner to qualify for the agricultural property tax rate.

Depending on the circumstances, a higher incidence of rented land can result in a less stable agricultural community. Farmers are less inclined to make the capital improvements required to maintain land if they do not own it, or if the right to use is short term and informal. The type of commodities grown on rented land tends to be limited. A farmer with a year-to-year rental agreement is not going to plant a crop that requires capital investment and a number of years to reach full production. Therefore rental land is often not managed to full efficiency, used to its full potential, or cultivated for the most productive crop. Surveys conducted by PLANSCAPE[2] in the Golden Horseshoe over the past several years have confirmed that rental arrangements for farmland in this area are usually short term and informal. If rental arrangements are stable and long term this can be a benefit to agriculture. The ability to rent land provides farmers with access to land without having to incur the capital cost of purchasing it.

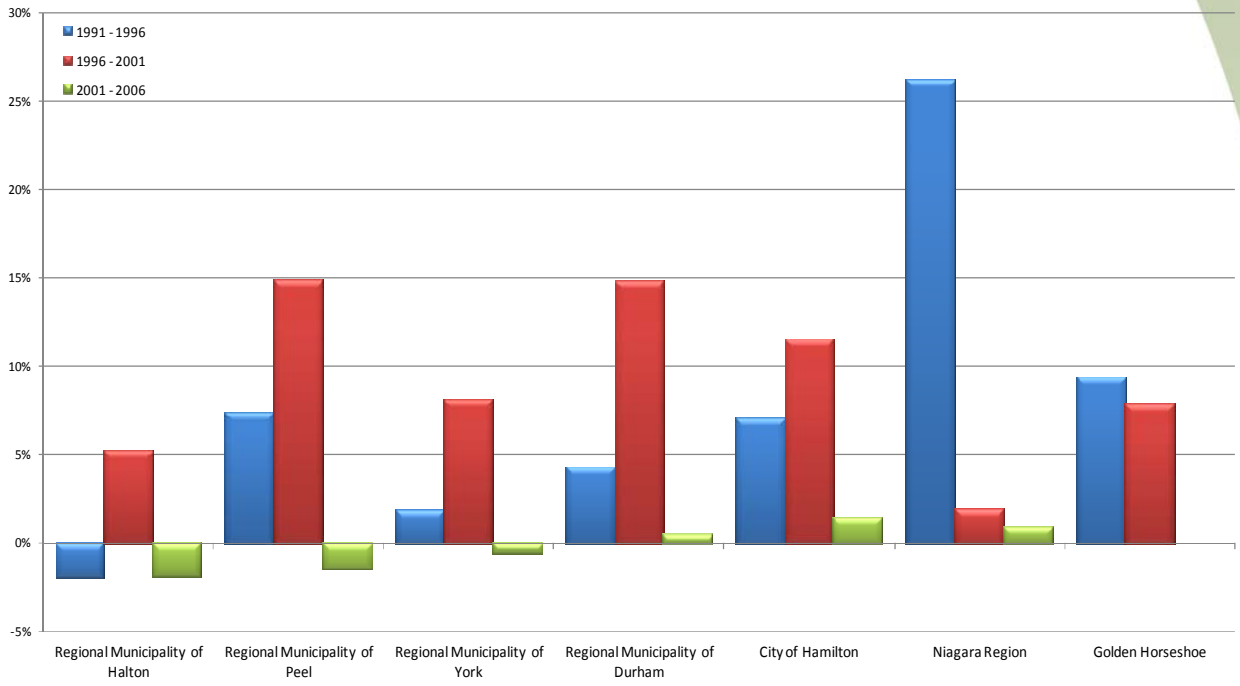
The average farm size in Ontario has been increasing steadily over time and this trend continued in 2006. This trend was evident in the GH as a whole, between 1991 and 2001 when the average farm size increased from 128 acres to 151 acres. Between 2001 and 2006 the average farm size remained constant at 151 acres for the GH.

Figure 2.5a – Average Farm Size (In Acres), 2006

	Average Farm Size Census Years				Percentage Change		
Geographic Location	**1991**	**1996**	**2001**	**2006**	**1991 - 1996**	**1996 - 2001**	**2001 - 2006**
Ontario	196	206	226	233	5%	10%	3%
Regional Municipality of Halton	155	152	160	157	-2%	5%	-2%
Regional Municipality of Peel	162	174	200	197	7%	15%	-2%
Regional Municipality of York	157	160	173	172	2%	8%	-1%
Regional Municipality of Durham	161	168	193	194	4%	15%	1%
City of Hamilton	113	121	135	137	7%	12%	1%
Niagara Region	80	101	103	104	26%	2%	1%
Golden Horseshoe	128	140	151	151	9%	8%	0%

Source: 2006 Statistics Canada – Census of Agriculture , 1991 to 2006

Figure 2.5b – Average Farm Size, showing Percentage Change, 1991 to 2006



NOTE: There was no change in the GTA or the Golden Horseshoe between 2001 and 2006

Source: 2006 Statistics Cnada – Census of Agriculture - Special Order

Regionally, Niagara has the smallest farm size. The smaller farm size in Niagara is due to the nature of production: operations such as tender fruit or grapes can be profitable on smaller acreages than commodities such as cash crops. Between 2001 and 2006, average farm size declined slightly in Peel, York and Halton but increased slightly in Durham and Hamilton. Factors that impact farm size trends include types of crops grown, changes in production methods, commodity prices, cost of land, development pressure, demand for land and land availability.

In the Golden Horseshoe farm size is influenced by the type of farm that is emerging as the dominant type. Greenhouse, nursery, fruit and vegetable operations all tend to be smaller in size. The larger operations are cash crop operations which take advantage of large tracts of rental land that are often available in proximity to urban areas. This kind of "land banking" occurs because speculators rent out land for agriculture to use that they are holding for future development prospects.

2.2.4 Farm Type

The profile of agriculture in the Golden Horseshoe is shifting. **Figure 2.6 a & b** provides a breakdown of farm types by commodity grouping for 2001 and 2006[3]. As shown, overall there was a significant decline in the number of dairy, cattle and poultry operations between 1996 and 2001. The number of hog operations declined in the regions of the GTA but increased in Hamilton between 2001 and 2006. It is anticipated with the issues impacting hog production between 2006 and the present the next agricultural census will reflect and ongoing decline in that sector. Fruit declined slightly; grain and

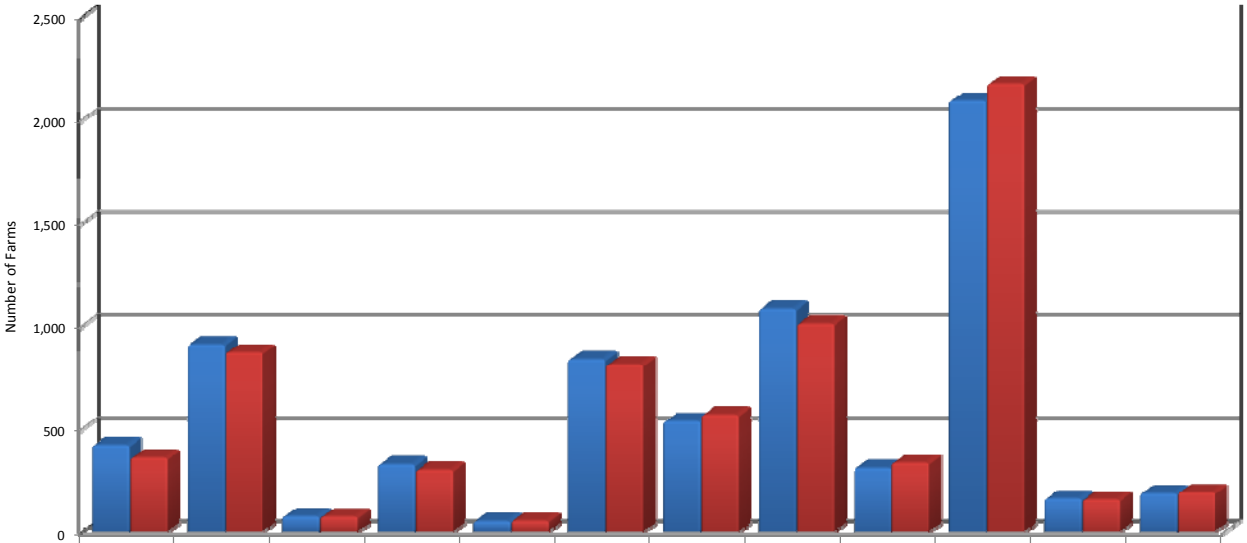
oilseed remained stable. There has been growth in the number of vegetable and miscellaneous specialty operations. The growth in miscellaneous specially is focused on horse and pony, greenhouse and nursery and sod. These patterns are consistent across the GTA, but Halton and Peel experienced higher rates of decline in certain sectors.

Figure 2.6a – Number of Farms by Farm Type—Total Gross Farm Receipts, 2001 and 2006

Geographic Location 2001	Number of Farms	Dairy	Cattle	Hog	Poultry & Egg	Wheat	Grains & Oilseeds	Field Crops	Fruit	Vegetable	Miscellaneous Specialty	Livestock Combination	Other Combination	Gross Farm Receipts ($)
Regional Municipality of Halton	619	27	100	4	23	7	96	66	31	22	208	14	21	141,473,312
Regional Municipality of Peel	522	85	105	6	7	2	61	42	22	12	157	11	12	116,536,793
Regional Municipality of York	1,020	52	159	14	28	9	112	84	22	116	370	31	23	178,963,186
Regional Municipality of Durham	1,709	196	462	20	55	5	213	135	43	46	421	60	53	233,890,944
City of Hamilton	1,026	55	120	21	63	5	169	78	87	62	319	19	28	222,342,429
Niagara Region	2,266	118	135	33	172	10	209	100	839	52	514	30	54	511,395,019
Golden Horseshoe	7,162	533	1,081	98	348	38	860	505	1,044	310	1,989	165	191	1,404,601,683
Geographic Location 2006	**Number of Farms**	**Dairy**	**Cattle**	**Hog**	**Poultry & Egg**	**Wheat**	**Grains & Oilseeds**	**Field Crops**	**Fruit**	**Vegetable**	**Miscellaneous Specialty**	**Livestock Combination**	**Other Combination**	**Gross Farm Receipts ($)**
Regional Municipality of Halton	566	12	75	3	20	9	90	49	33	19	227	13	16	132,041,893
Regional Municipality of Peel	483	44	77	0	6	4	72	37	26	18	167	16	16	81,629,248
Regional Municipality of York	972	44	119	5	16	9	94	85	45	117	395	22	21	224,119,932
Regional Municipality of Durham	1,686	147	384	14	51	16	204	188	55	43	471	62	51	239,539,007
City of Hamilton	975	39	97	23	52	148	88	82	82	55	339	17	35	224,776,914
Niagara Region	2,236	74	119	30	158	10	212	122	771	84	576	28	52	671,680,773
Golden Horseshoe	6,918	360	871	75	303	196	760	563	1,012	336	2,175	158	191	1,573,787,767

Source: 2006 Statistics Canada – Census of Agriculture - Special Order

Figure 2.6b – Comparison of Number of Farms by Farm Type, Golden Horseshoe, 2001 and 2006



	Dairy	Cattle	Hog	Poultry & Egg	Wheat	Grains & Oilseeds	Field Crops	Fruit	Vegetable	Miscellaneous Specialty	Livestock Combination	Other Combination
2001	420	910	76	328	53	838	537	1,085	311	2,093	162	186
2006	360	871	75	303	55	813	569	1,012	336	2,175	158	191

2.2.5 Share of Production

In 2006, the annual Gross Farm Receipt's (GFR'S) generated in the Golden Horseshoe increased by $16.9 million over the 2001 value to $1.6 billion. This increase occurred despite a decrease of approximately 38,000 acres of farmland during the period. The percentage share of farmland area and GFR's accounted for by the GH remained constant between 2001 and 2006. During the period, the GH accounted for 8% of the farmland area in Ontario and generated 15% of provincial gross farm receipts.

Figure 2.7 – Comparison of Farmland Area (Acres) and Gross Farm Receipts (Excluding Forest Products Sold per Acre but including Nursery) of Farms, 2001 and 2006

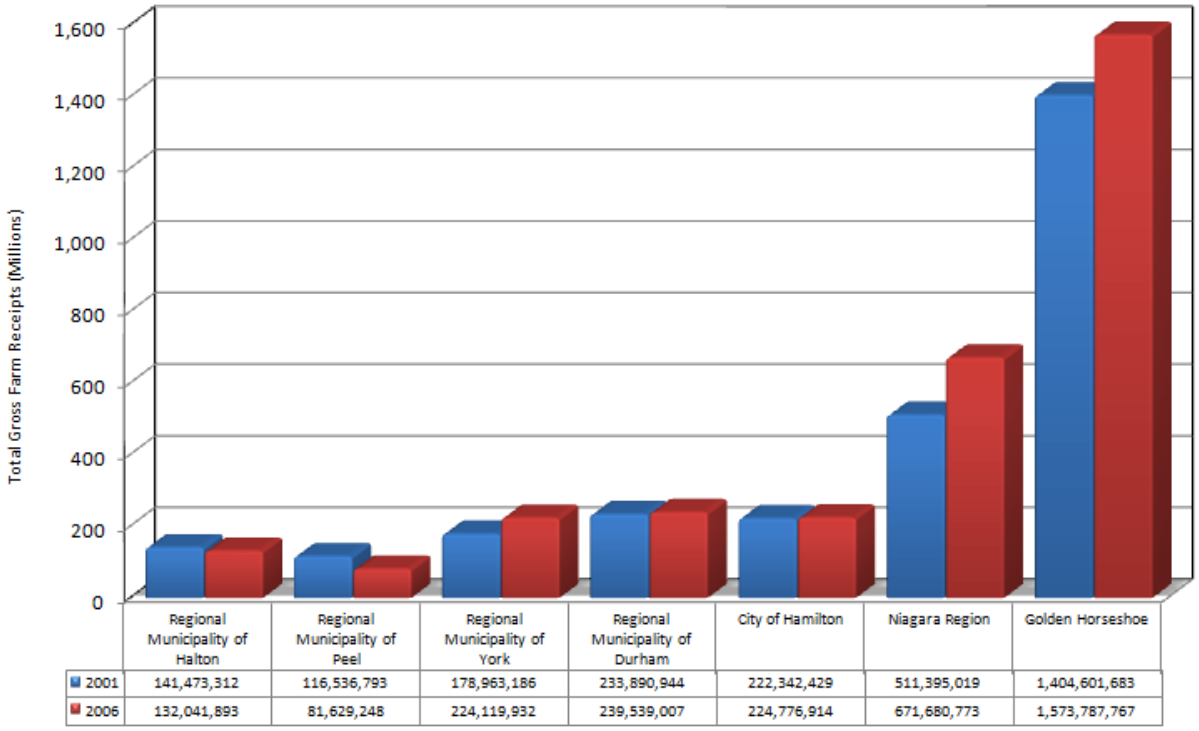
2001			Farmland Area			Gross Farm Receipts		
Geographic Location	Area of Municipality	Number of Farms	Acres	Average Size (Acres)	% of Total Provincial Area	Total ($)	Per Acre ($)	% of Total Provincial
Ontario		59,728	13,507,357	226		9,115,454,790	675	
Regional Municipality of Halton	238,993	619	98,758	160	1%	141,473,312	1,433	2%
Regional Municipality of Peel	307,004	522	104,433	200	1%	116,536,793	1,116	1%
Regional Municipality of York	435,360	1,020	175,965	173	1%	178,963,186	1,017	2%
Regional Municipality of Durham	623,484	1,709	330,286	193	2%	233,890,944	708	3%
City of Hamilton	276,000	1,026	138,879	135	1%	222,342,429	1,601	2%
Niagara Region	458,100	2,266	232,817	103	2%	511,395,019	2,197	6%
Golden Horseshoe	2,338,941	7,162	1,081,138	151	8%	1,404,601,683	1,299	15%
2006			Farmland Area			Gross Farm Receipts		
Geographic Location	Area of Municipality	Number of Farms	Acres	Average Size (Acres)	% of Total Provincial Area	Total ($)	Per Acre ($)	% of Total Provincial
Ontario		57,211	13,310,216	233		10,342,031,229	777	
Regional Municipality of Halton	238,993	566	88,899	157	1%	132,041,893	1,485	1%
Regional Municipality of Peel	307,004	483	95,289	197	1%	81,629,248	857	1%
Regional Municipality of York	435,360	972	167,076	172	1%	224,119,932	1,341	2%
Regional Municipality of Durham	623,484	1,686	326,702	194	2%	239,539,007	733	2%
City of Hamilton	276,000	975	133,205	137	1%	224,776,914	1,687	2%
Niagara Region	458,100	2,236	231,728	104	2%	671,680,773	2,899	6%
Golden Horseshoe	2,338,941	6,918	1,042,899	151	8%	1,573,787,767	1,509	15%

Source: 2006 Statistics Canada – Census of Agriculture – Special Order, 2006 Total Gross Farm Receipts; 2006 Community Profiles – All Data – Population and Dwelling Counts – Land Area Category.

2.2.6 Gross Farm Receipts

Niagara is the agricultural powerhouse in the GH: in 2006, it generated the highest level of gross farm receipts in the area of $672 million. Durham was second at $240 million, followed closely by Hamilton at $225 million and York at $224 million. Halton was lower at $132 million and Peel was lowest at $81 million. Peel experienced a significant decline in GFR's between 2001 and 2006; Halton experienced a small decline and all of the other regions experienced increases.

Figure 2.8a – Total Gross Farm Receipts, 2001 and 2006



	Regional Municipality of Halton	Regional Municipality of Peel	Regional Municipality of York	Regional Municipality of Durham	City of Hamilton	Niagara Region	Golden Horseshoe
2001	141,473,312	116,536,793	178,963,186	233,890,944	222,342,429	511,395,019	1,404,601,683
2006	132,041,893	81,629,248	224,119,932	239,539,007	224,776,914	671,680,773	1,573,787,767

Source: 2006 Statistics Canada – Census of Agriculture - Special Order; 2001 Statistics Canada – Catalogue No. 95F0301XIE

The percentage change in gross farm receipts by regional municipality between 2001 and 2006 is shown graphically on **Figure 2.8a & b.** Gross farm receipts increased in all of the Regions with the exception of Halton and Peel where the loss in farmland acres was also the highest.

Figure 2.8b – Total Gross Farm Receipts (Excluding Forest Products Sold) Per Acre, 2006

Geographic Location	2001 Farmland Area (Acres)	2001 Gross Farm Receipts Total ($)	2001 Gross Farm Receipts Per Acre ($)	2006 Farmland Area (Acres)	2006 Gross Farm Receipts Total ($)	2006 Gross Farm Receipts Per Acre ($)
Ontario	13,507,357	9,115,454,790	675	13,310,216	10,342,031,229	777
Regional Municipality of Halton	98,758	141,473,312	1,433	88,899	132,041,893	1,484
Regional Municipality of Peel	104,433	116,536,793	1,116	95,289	81,629,248	856
Regional Municipality of York	175,965	178,963,186	1,017	167,076	224,119,932	1,340
Regional Municipality of Durham	330,286	233,890,944	708	326,702	239,539,007	732
City of Hamilton	138,879	222,342,429	1,601	133,205	224,776,914	1,687
Niagara Region	232,817	511,395,019	2,197	231,728	671,680,773	2,899
Golden Horseshoe	1,081,138	1,404,601,683	1,299	1,042,899	1,573,787,767	1,509

Source: 2006 Statistics Canada – Census of Agriculture - Special Order; 2001 Statistics Canada – Catalogue No. 95F0301XIE

2.2.7 Gross Farm Receipts Per Acre

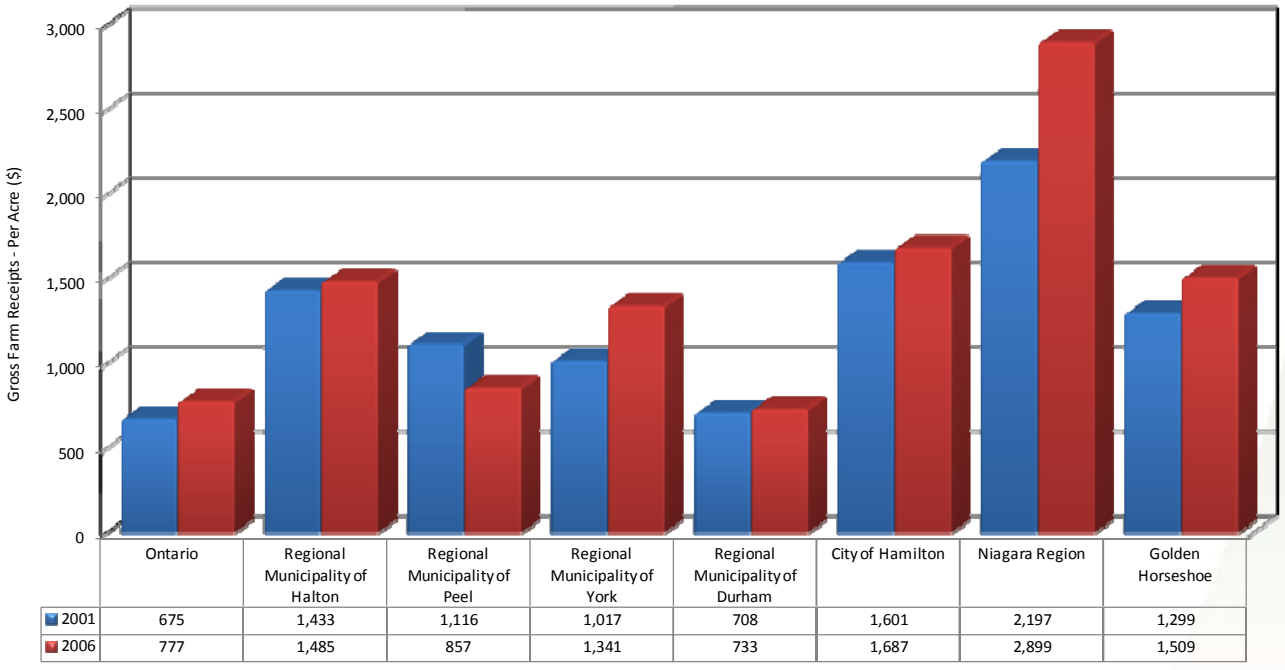
Based on GFR's per acre, the GH exhibited very high productivity in 2006. As shown on **Figure 2.9a & b**, the average per acre rate for the GH in 2006 was $1,509 as compared to the provincial average of $776 per acre. On a regional basis, Niagara had the highest per acre rate of $2,899; followed by Hamilton at $1,687; Halton ($1,484), York ($1,340), Peel ($856), and Durham ($732).

Figure 2.9a – Gross Farm Receipts – Per Acre ($) Comparison of Change 2001 and 2006

Geographic Location	Gross Farm Receipts ($)		Percentage Change
	2001	2006	
Ontario	9,115,454,790	10,342,031,229	13%
Regional Municipality of Halton	141,473,312	132,041,893	-7%
Regional Municipality of Peel	116,536,793	81,629,248	-30%
Regional Municipality of York	178,963,186	224,119,932	25%
Regional Municipality of Durham	233,890,944	239,539,007	2%
City of Hamilton	222,342,429	224,776,914	1%
Niagara Region	511,395,019	671,680,773	31%
Golden Horseshoe	1,404,601,683	1,573,787,767	12%

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.9b – Gross Farm Receipts – Per Acre ($) Comparison of Change 2001 and 2006



	Ontario	Regional Municipality of Halton	Regional Municipality of Peel	Regional Municipality of York	Regional Municipality of Durham	City of Hamilton	Niagara Region	Golden Horseshoe
2001	675	1,433	1,116	1,017	708	1,601	2,197	1,299
2006	777	1,485	857	1,341	733	1,687	2,899	1,509

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.9c – Total Gross Farm Receipts (Excluding Forest Products Sold) Showing Increase/Decrease between 2001 and 2006

Geographic Location	Gross Farm Receipts ($)		Change ($)
	2001	2006	
Ontario	9,115,454,790	10,342,031,229	$1,226,576,439
Regional Municipality of Halton	141,473,312	132,041,893	-$9,431,419
Regional Municipality of Peel	116,536,793	81,629,248	-$34,907,545
Regional Municipality of York	178,963,186	224,119,932	$45,156,746
Regional Municipality of Durham	233,890,944	239,539,007	$5,648,063
City of Hamilton	222,342,429	224,776,914	$2,434,485
Niagara Region	511,395,019	671,680,773	$160,285,754
Golden Horseshoe	1,404,601,683	1,573,787,767	$169,186,084

Source: 2006 Statistics Canada—Census of Agriculture—Special Order, 2006 Total Gross Farm Receipts;
2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

2.2.8 Production Profile

The top ten commodities in the GH for 2001 and 2006 are summarized on **Figures 2.10a – i**. These figures confirm that the commodity profile is relatively stable with the exception being the decline in dairy. Its percentage share of GFR's in the GH declined from 9% to 7% between 2001 and 2006. GFR's associated with cattle also declined.

Figure 2.10a – Gross Farm Receipts (all Farms), showing Percentage of Total, 2001

Regional Municipality of Halton		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	6,237,554	4.4%
Cattle	9,124,704	6.4%
Hog	1,990,980	1.4%
Poultry & Egg	8,343,780	5.9%
Wheat	226,378	0.2%
Grain & Oilseed	13,587,950	9.6%
Field Crops	910,793	0.6%
Fruit	4,483,891	3.2%
Miscellaneous Specialty	92,295,695	65.2%
Livestock Combination	952,854	0.7%
Vegetable	1,456,389	1.0%
Other Combination	1,862,344	1.3%
TOTAL	**141,473,312**	

Regional Municipality of Peel		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	23,131,165	19.8%
Cattle	12,887,733	11.1%
Hog	660,905	0.6%
Poultry & Egg	x	x
Wheat	x	x
Grain & Oilseed	10,626,090	9.1%
Field Crops	715,411	0.6%
Fruit	1,648,783	1.4%
Miscellaneous Specialty	34,650,956	29.7%
Livestock Combination	1,417,384	1.2%
Vegetable	1,564,287	1.3%
Other Combination	1,267,882	1.1%
TOTAL	**116,536,793**	

Regional Municipality of York		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	10,972,313	6.1%
Cattle	17,064,304	9.5%
Hog	3,446,454	1.9%
Poultry & Egg	24,144,307	13.5%
Wheat	249,922	0.1%
Grain & Oilseed	15,998,100	8.9%
Field Crops	3,183,515	1.8%
Fruit	2,868,316	1.6%
Miscellaneous Specialty	68,567,938	38.3%
Livestock Combination	3,278,829	1.8%
Vegetable	27,688,255	15.5%
Other Combination	1,500,933	0.8%
TOTAL	**178,963,186**	

Regional Municipality of Durham		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	51,193,411	21.9%
Cattle	22,230,699	9.5%
Hog	4,534,158	1.9%
Poultry & Egg	18,588,434	7.9%
Wheat	202,504	0.1%
Grain & Oilseed	31,732,728	13.6%
Field Crops	2,822,785	1.2%
Fruit	13,147,781	5.6%
Miscellaneous Specialty	77,219,489	33.0%
Livestock Combination	5,019,765	2.1%
Vegetable	4,672,554	2.0%
Other Combination	2,526,636	1.1%
TOTAL	**233,890,944**	

Niagara Region		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	23,296,554	4.6%
Cattle	4,459,614	0.9%
Hog	8,084,580	1.6%
Poultry & Egg	90,835,580	17.8%
Wheat	738,795	0.1%
Grain & Oilseed	20,799,197	4.1%
Field Crops	3,520,469	0.7%
Fruit	96,707,070	18.9%
Miscellaneous Specialty	252,537,457	49.4%
Livestock Combination	2,763,084	0.5%
Vegetable	3,536,701	0.7%
Other Combination	4,115,918	0.8%
TOTAL	**511,395,019**	

City of Hamilton		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	13,645,500	6.1%
Cattle	14,371,556	6.5%
Hog	5,314,820	2.4%
Poultry & Egg	45,964,159	20.7%
Wheat	176,849	0.1%
Grain & Oilseed	18,464,440	8.3%
Field Crops	3,081,064	1.4%
Fruit	7,592,447	3.4%
Miscellaneous Specialty	91,371,579	41.1%
Livestock Combination	1,315,376	0.6%
Vegetable	19,836,491	8.9%
Other Combination	1,208,148	0.5%
TOTAL	**222,342,429**	

Golden Horseshoe		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	128,476,497	9.1%
Cattle	80,138,610	5.7%
Hog	24,031,897	1.7%
Poultry & Egg	187,876,260	13.4%
Wheat	1,594,448	0.1%
Grain & Oilseed	111,208,505	7.9%
Field Crops	14,234,037	1.0%
Fruit	126,448,288	9.0%
Miscellaneous Specialty	616,643,114	43.9%
Livestock Combination	14,747,292	1.0%
Vegetable	58,754,677	4.2%
Other Combination	12,481,861	0.9%
TOTAL	**1,404,601,683**	

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.10b – Gross Farm Receipts (all Farms), showing Percentage of Total, 2006

Regional Municipality of Halton		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	2,740,315	2.1%
Cattle	9,596,613	7.3%
Hog	1,460,755	1.1%
Poultry & Egg	5,898,168	4.5%
Wheat	207,722	0.2%
Grain & Oilseed	12,799,112	9.7%
Field Crops	2,435,449	1.8%
Fruit	7,433,540	5.6%
Miscellaneous Specialty	85,684,168	64.9%
Livestock Combination	969,045	0.7%
Vegetable	2,259,316	1.7%
Other Combination	557,690	0.4%
TOTAL	**132,041,893**	

Regional Municipality of Peel		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	18,273,114	22.4%
Cattle	7,235,071	8.9%
Hog	0	0.0%
Poultry & Egg	1,127,348	x
Wheat	482,324	x
Grain & Oilseed	11,359,179	13.9%
Field Crops	1,153,467	1.4%
Fruit	3,971,892	4.9%
Miscellaneous Specialty	27,505,815	33.7%
Livestock Combination	6,221,018	7.6%
Vegetable	2,769,607	3.4%
Other Combination	1,530,413	1.9%
TOTAL	**81,629,248**	

Regional Municipality of York		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	12,091,822	5.4%
Cattle	23,595,084	10.5%
Hog	1,588,689	0.7%
Poultry & Egg	17,026,675	7.6%
Wheat	404,573	0.2%
Grain & Oilseed	16,545,616	7.4%
Field Crops	4,269,841	1.9%
Fruit	6,293,759	2.8%
Miscellaneous Specialty	101,590,149	45.3%
Livestock Combination	648,521	0.3%
Vegetable	36,575,953	16.3%
Other Combination	3,489,250	1.6%
TOTAL	**224,119,932**	

Regional Municipality of Durham		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	51,130,108	21.3%
Cattle	17,833,303	7.4%
Hog	4,755,690	2.0%
Poultry & Egg	25,271,280	10.5%
Wheat	479,601	0.2%
Grain & Oilseed	38,238,029	16.0%
Field Crops	6,475,110	2.7%
Fruit	9,315,231	3.9%
Miscellaneous Specialty	74,275,502	31.0%
Livestock Combination	4,867,558	2.0%
Vegetable	3,100,745	1.3%
Other Combination	3,796,850	1.6%
TOTAL	**239,539,007**	

Niagara Region		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	18,218,970	2.7%
Cattle	5,241,407	0.8%
Hog	10,760,297	1.6%
Poultry & Egg	98,308,509	14.6%
Wheat	266,390	0.0%
Grain & Oilseed	31,363,866	4.7%
Field Crops	4,250,755	0.6%
Fruit	116,594,220	17.4%
Miscellaneous Specialty	352,078,435	52.4%
Livestock Combination	2,481,080	0.4%
Vegetable	4,071,928	0.6%
Other Combination	28,044,916	4.2%
TOTAL	**671,680,773**	

City of Hamilton		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	14,173,646	6.3%
Cattle	3,477,717	1.5%
Hog	6,222,041	2.8%
Poultry & Egg	40,226,653	17.9%
Wheat	210,702	0.1%
Grain & Oilseed	19,334,406	8.6%
Field Crops	3,815,169	1.7%
Fruit	9,029,025	4.0%
Miscellaneous Specialty	109,255,784	48.6%
Livestock Combination	923,995	0.4%
Vegetable	13,790,844	6.1%
Other Combination	4,316,932	1.9%
TOTAL	**224,776,914**	

Golden Horseshoe		
Commodity	Gross Farm Receipts ($)	Percentage of Total
Dairy	116,627,975	7.4%
Cattle	66,979,195	4.3%
Hog	24,787,472	1.6%
Poultry & Egg	187,858,633	11.9%
Wheat	2,051,312	0.1%
Grain & Oilseed	129,640,208	8.2%
Field Crops	22,399,791	1.4%
Fruit	152,637,667	9.7%
Miscellaneous Specialty	750,389,853	47.7%
Livestock Combination	16,111,217	1.0%
Vegetable	62,568,393	4.0%
Other Combination	41,736,051	2.7%
TOTAL	**1,573,787,767**	

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.10c – Ranking by Gross Farm Receipts (all Farms), showing Grains & Oilseeds, and Miscellaneous Specialty by Category, showing Percentage of Total, 2001

Regional Municipality of Halton			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Product	21,907,456	15.5%
2	Nursery Product & Sod	18,483,616	13.1%
3	Horse & Pony	11,952,655	8.4%
4	Other Small Grian	10,390,186	7.3%
5	Cattle	9,124,704	6.4%
6	Poultry & Egg	8,343,780	5.9%
7	Dairy	6,237,554	4.4%
8	Fruit	4,483,891	3.2%
9	Hog	1,990,980	1.4%
10	Other Combination	1,862,344	1.3%
11	Oilseed	1,688,791	1.2%
12	Corn for Grain	1,508,973	1.1%
13	Vegetable	1,456,389	1.0%
14	Livestock Combination	952,854	0.7%
15	Field Crops	910,793	0.6%
16	Goat	289,033	0.2%
17	Wheat	226,378	0.2%
18	Sheep & Lamb	123,039	0.1%
19	Other Livestock Specialty	80,628	0.1%
20	Dry Field Pea & Bean	0	0.0%
21	Fur	0	0.0%
22	Maple & Christmas Tree	x	x
23	Mushroom	x	x
	TOTAL	141,473,312	

Regional Municipality of Peel			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Dairy	23,131,165	19.8%
2	Greenhouse Product	16,689,353	14.3%
3	Horse & Pony	15,382,799	13.2%
4	Cattle	12,887,733	11.1%
5	Other Small Grian	5,932,703	5.1%
6	Oilseed	2,798,933	2.4%
7	Nursery Product & Sod	2,092,906	1.8%
8	Corn for Grain	1,894,454	1.6%
9	Fruit	1,648,783	1.4%
10	Vegetable	1,564,287	1.3%
11	Livestock Combination	1,417,384	1.2%
12	Other Combination	1,267,882	1.1%
13	Field Crops	715,411	0.6%
14	Hog	660,905	0.6%
15	Other Livestock Specialty	360,953	0.3%
16	Goat	60,783	0.1%
17	Sheep & Lamb	33,400	0.03%
18	Maple & Christmas Tree	30,762	0.03%
19	Fur	0	0.0%
20	Dry Field Pea & Bean	0	0.0%
21	Mushroom	0	0.0%
22	Poultry & Egg	x	x
23	Wheat	x	x
	TOTAL	116,536,793	

Regional Municipality of York			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Vegetable	27,688,255	15.5%
2	Greenhouse Product	26,146,270	14.6%
3	Poultry & Egg	24,144,307	13.5%
4	Horse & Pony	18,535,843	10.4%
5	Cattle	17,064,304	9.5%
6	Nursery Product & Sod	15,219,627	8.5%
7	Dairy	10,972,313	6.1%
8	Other Small Grian	7,980,563	4.5%
9	Mushroom	6,892,960	3.9%
10	Corn for Grain	5,624,467	3.1%
11	Hog	3,446,454	1.9%
12	Livestock Combination	3,278,829	1.8%
13	Field Crops	3,183,515	1.8%
14	Fruit	2,868,316	1.6%
15	Oilseed	2,393,070	1.3%
16	Other Combination	1,500,933	0.8%
17	Maple & Christmas Tree	691,842	0.4%
18	Sheep & Lamb	664,327	0.4%
19	Wheat	249,922	0.1%
20	Goat	221,859	0.1%
21	Other Livestock Specialty	195,210	0.1%
22	Dry Field Pea & Bean	0	0.0%
23	Fur	0	0.0%
	TOTAL	178,963,186	

Regional Municipality of Durham			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Dairy	51,193,411	21.9%
2	Nursery Product & Sod	33,762,723	14.4%
3	Cattle	22,230,699	9.5%
4	Horse & Pony	19,811,963	8.5%
5	Poultry & Egg	18,588,434	7.9%
6	Fruit	13,147,781	5.6%
7	Mushroom	12,273,618	5.2%
8	Greenhouse Product	9,338,891	4.0%
9	Corn for Grain	8,751,638	3.7%
10	Livestock Combination	5,019,765	2.1%
11	Vegetable	4,672,554	2.0%
12	Hog	4,534,158	1.9%
13	Oilseed	2,903,630	1.2%
14	Field Crops	2,822,785	1.2%
15	Other Combination	2,526,636	1.1%
16	Other Livestock Specialty	706,185	0.3%
17	Sheep & Lamb	449,742	0.2%
18	Maple & Christmas Tree	384,551	0.2%
19	Wheat	202,504	0.1%
20	Dry Field Pea & Bean	x	x
21	Other Small Grian	x	x
22	Goat	x	x
23	Fur	x	x
	TOTAL	233,890,944	

Niagara Region			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Products	217,609,442	42.6%
2	Fruit	96,707,070	18.9%
3	Poultry & Egg	90,835,580	17.8%
4	Nursery Product & Sod	27,717,140	5.4%
5	Dairy	23,296,554	4.6%
6	Oilseed	10,237,728	2.0%
7	Other Small Grain	8,200,403	1.6%
8	Hog	8,084,580	1.6%
9	Cattle	4,459,614	0.9%
10	Horse & Pony	4,220,708	0.8%
11	Other Combination	4,115,918	0.8%
12	Vegetable	3,536,701	0.7%
13	Field Crops	3,520,469	0.7%
14	Livestock Combination	2,763,084	0.5%
15	Corn for Grain	2,361,066	0.5%
16	Fur	1,517,107	0.3%
17	Other Livestock Specialty	843,300	0.2%
18	Wheat	738,795	0.1%
19	Maple & Christmas Tree	267,634	0.1%
20	Sheep & Lamb	233,042	x
21	Goat	129,084	0.0%
22	Dry Field Pea & Bean	0	0.0%
23	Mushroom	0	x
	TOTAL	511,395,019	

City of Hamilton			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Poultry & Egg	45,964,159	20.7%
2	Nursery Product & Sod	35,317,733	15.9%
3	Greenhouse Products	32,505,557	14.6%
4	Vegetable	19,836,491	8.9%
5	Mushroom	15,003,688	6.7%
6	Cattle	14,371,556	6.5%
7	Dairy	13,645,500	6.1%
8	Corn for Grain	8,192,238	3.7%
9	Fruit	7,592,447	3.4%
10	Other Small Grain	7,547,623	3.4%
11	Horse & Pony	6,886,313	3.1%
12	Hog	5,314,820	2.4%
13	Field Crops	3,081,064	1.4%
14	Oilseed	2,724,579	1.2%
15	Livestock Combination	1,315,376	0.6%
16	Other Combination	1,208,148	0.5%
17	Other Livestock Specialty	817,051	0.4%
18	Maple & Christmas Tree	407,521	0.2%
19	Sheep & Lamb	337,769	0.2%
20	Wheat	176,849	0.1%
21	Goat	95,947	0.0%
22	Dry Field Pea & Bean	0	0.0%
23	Fur	0	0.0%
	TOTAL	222,342,429	

Golden Horseshoe			
Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Products	324,196,969	23.1%
2	Poultry & Egg	187,876,260	13.4%
3	Nursery Product & Sod	132,593,745	9.4%
4	Dairy	128,476,497	9.1%
5	Fruit	126,448,288	9.0%
6	Cattle	80,138,610	5.7%
7	Horse & Pony	76,790,281	5.5%
8	Vegetable	58,754,677	4.2%
9	Other Small Grain	40,051,478	2.9%
10	Mushroom	34,170,266	2.4%
11	Corn for Grain	28,332,836	2.0%
12	Hog	24,031,897	1.7%
13	Oilseed	22,746,731	1.6%
14	Livestock Combination	14,747,292	1.0%
15	Field Crops	14,234,037	1.0%
16	Other Combination	12,481,861	0.9%
17	Other Livestock Specialty	3,003,327	0.2%
18	Sheep & Lamb	1,841,319	0.1%
19	Maple & Christmas Tree	1,782,310	0.1%
20	Wheat	1,594,448	0.1%
21	Fur	1,517,107	0.1%
22	Goat	796,706	0.0%
23	Dry Field Pea & Bean	0	0.0%
	TOTAL	1,404,601,683	

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.10d – Ranking by Gross Farm Receipts (all Farms), showing Grains & Oilseeds, and Miscellaneous Specialty by Category, showing Percentage of To-

Regional Municipality of Halton

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Product	24,773,138	18.8%
2	Nursery Product & Sod	24,722,749	18.7%
3	Horse & Pony	19,888,415	15.1%
4	Cattle	9,596,613	7.3%
5	Other Small Grain	7,452,008	5.6%
6	Fruit	7,433,540	5.6%
7	Poultry & Egg	5,898,168	4.5%
8	Oilseed	4,916,342	3.7%
9	Dairy	2,740,315	2.1%
10	Field Crops	2,435,449	1.8%
11	Vegetable	2,259,316	1.7%
12	Hog	1,460,755	1.1%
13	Livestock Combination	969,045	0.7%
14	Other Combination	557,690	0.4%
15	Corn for Grain	430,762	0.3%
16	Wheat	207,722	0.2%
17	Sheep & Lamb	142,766	0.1%
18	Other Livestock Specialty	53,318	0.0%
19	Dry Field Pea & Bean	0	0.0%
20	Fur	0	0.0%
21	Goat	x	x
22	Mushroom	x	x
23	Maple & Christmas Tree	x	x
	TOTAL	132,041,893	

Regional Municipality of Peel

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Dairy	18,273,114	22.4%
2	Greenhouse Product	15,625,802	19.14%
3	Horse & Pony	9,030,357	11.1%
4	Cattle	7,235,071	8.9%
5	Other Small Grain	6,990,748	8.6%
6	Livestock Combination	6,221,018	7.6%
7	Oilseed	4,210,122	5.2%
8	Fruit	3,971,892	4.9%
9	Vegetable	2,769,607	3.4%
10	Nursery Product & Sod	1,975,952	2.4%
11	Other Combination	1,530,413	1.9%
12	Field Crops	1,153,467	1.4%
13	Poultry & Egg	1,127,348	1.4%
14	Wheat	482,324	0.6%
15	Other Livestock Specialty	409,915	0.5%
16	Sheep & Lamb	260,387	0.3%
17	Corn for Grain	158,309	0.2%
18	Maple & Christmas Tree	116,910	0.1%
19	Dry Field Pea & Bean	0	0.0%
20	Hog	0	0.0%
21	Fur	0	0.0%
22	Goat	x	x
23	Mushroom	x	x
	TOTAL	81,629,248	

Regional Municipality of York

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Vegetable	36,575,953	16.3%
2	Greenhouse Product	36,071,269	16.1%
3	Horse & Pony	34,694,271	15.5%
4	Cattle	23,595,084	10.5%
5	Nursery Product & Sod	19,116,774	8.5%
6	Poultry & Egg	17,026,675	7.6%
7	Dairy	12,091,822	5.4%
8	Mushroom	10,384,994	4.6%
9	Fruit	6,293,759	2.8%
10	Field Crops	4,269,841	1.9%
11	Corn for Grain	3,714,654	1.7%
12	Other Combination	3,489,250	1.6%
13	Oilseed	3,371,343	1.5%
14	Hog	1,588,689	0.7%
15	Livestock Combination	648,521	0.3%
16	Sheep & Lamb	622,270	0.3%
17	Wheat	404,573	0.2%
18	Maple & Christmas Tree	326,564	0.1%
19	Other Livestock Specialty	320,546	0.1%
20	Goat	53,461	0.0%
21	Fur	0	0.0%
22	Dry Field Pea & Bean	x	x
23	Other Small Grain	x	x
	TOTAL	224,119,932	

Regional Municipality of Durham

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Dairy	51,130,108	21.3%
2	Nursery Product & Sod	29,178,582	12.2%
3	Other Small Grain	25,393,853	10.6%
4	Poultry & Egg	25,271,280	10.5%
5	Cattle	17,833,303	7.4%
6	Horse & Pony	16,974,243	7.1%
7	Greenhouse Product	13,930,680	5.8%
8	Corn for Grain	9,539,059	4.0%
9	Fruit	9,315,231	3.9%
10	Field Crops	6,475,110	2.7%
11	Livestock Combination	4,867,558	2.0%
12	Hog	4,755,690	2.0%
13	Other Combination	3,796,850	1.6%
14	Oilseed	3,272,310	1.4%
15	Vegetable	3,100,745	1.3%
16	Other Livestock Specialty	846,535	0.4%
17	Sheep & Lamb	561,406	0.2%
18	Wheat	479,601	0.2%
19	Goat	404,433	0.2%
20	Maple & Christmas Tree	370,618	0.2%
21	Dry Field Pea & Bean	32,807	0.0%
22	Fur	x	x
23	Mushroom	x	x
	TOTAL	239,539,007	

Niagara Region

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Products	289,099,652	43.0%
2	Fruit	116,594,220	17.4%
3	Poultry & Egg	98,308,509	14.6%
4	Nursery Product & Sod	48,902,783	7.3%
5	Other Combination	28,044,916	4.2%
6	Dairy	18,218,970	2.7%
7	Oilseed	17,054,023	2.5%
8	Other Small Grain	11,707,717	1.7%
9	Hog	10,760,297	1.6%
10	Horse & Pony	7,849,642	1.2%
11	Cattle	5,241,407	0.8%
12	Field Crops	4,250,755	0.6%
13	Vegetable	4,071,928	0.6%
14	Fur	2,912,524	0.4%
15	Corn for Grain	2,602,126	0.4%
16	Livestock Combination	2,481,080	0.4%
17	Other Livestock Specialty	1,591,807	0.2%
18	Maple & Christmas Tree	739,464	0.1%
19	Goat	440,591	0.1%
20	Wheat	266,390	0.0%
21	Dry Field Pea & Bean	0	0.0%
22	Sheep & Lamb	x	x
23	Mushroom	x	x
	TOTAL	671,680,773	

City of Hamilton

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Products	44,636,220	19.9%
2	Poultry & Egg	40,226,653	17.9%
3	Nursery Product & Sod	33,661,260	15.0%
4	Mushroom	19,455,364	8.7%
5	Dairy	14,173,646	6.3%
6	Vegetable	13,790,844	6.1%
7	Other Small Grain	11,160,664	5.0%
8	Horse & Pony	9,175,521	4.1%
9	Fruit	9,029,025	4.0%
10	Hog	6,222,041	2.8%
11	Oilseed	4,965,197	2.2%
12	Other Combination	4,316,932	1.9%
13	Cattle	3,477,717	1.5%
14	Field Crops	3,815,169	1.7%
15	Corn for Grain	3,208,545	1.4%
16	Other Livestock Specialty	1,085,215	0.5%
17	Livestock Combination	923,995	0.4%
18	Maple & Christmas Tree	736,203	0.3%
19	Sheep & Lamb	315,027	0.1%
20	Wheat	210,702	0.1%
21	Goat	190,974	0.1%
22	Dry Field Pea & Bean	0	0.0%
23	Fur	0	0.0%
	TOTAL	224,776,914	

Golden Horseshoe

Rank	Commodity	Gross Farm Receipts ($)	Percentage of Total
1	Greenhouse Products	424,136,761	27.0%
2	Poultry & Egg	187,858,633	11.9%
3	Nursery Product & Sod	157,558,100	10.0%
4	Fruit	152,637,667	9.7%
5	Dairy	116,627,975	7.4%
6	Horse & Pony	97,612,449	6.2%
7	Cattle	66,979,195	4.3%
8	Other Small Grain	62,704,990	4.0%
9	Vegetable	62,586,393	4.0%
10	Other Combination	41,736,051	2.7%
11	Oilseed	37,789,337	2.4%
12	Mushroom	29,840,358	1.9%
13	Hog	24,787,472	1.6%
14	Field Crops	22,399,791	1.4%
15	Corn for Grain	19,653,455	1.2%
16	Livestock Combination	16,111,217	1.0%
17	Other Livestock Specialty	4,307,336	0.3%
18	Fur	2,912,524	0.2%
19	Maple & Christmas Tree	2,289,759	0.1%
20	Wheat	2,051,312	0.1%
21	Sheep & Lamb	1,901,856	0.1%
22	Goat	1,089,459	0.0%
23	Dry Field Pea & Bean	32,807	0.0%
	TOTAL	1,573,787,767	

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.10e – Top Ten Ranking by Gross Farm Receipts (all farms), 2001

Rank	Regional Municipality of Halton	Regional Municipality of Peel	Regional Muncipality of York	Regional Municipality of Durham	City of Hamilton	Niagara Region	Golden Horseshoe
1	Greenhouse Products	Dairy	Vegetable	Dairy	Poultry & Egg	Greenhouse Products	Greenhouse Products
2	Nursery Product & Sod	Greenhouse Product	Greenhouse Product	Nursery Product & Sod	Nursery Product & Sod	Fruit	Poultry & Egg
3	Horse & Pony	Horse & Pony	Poultry & Egg	Cattle	Greenhouse Products	Poultry & Egg	Nursery Product & Sod
4	Other Small Grain	Cattle	Horse & Pony	Horse & Pony	Vegetable	Nursery Product & Sod	Dairy
5	Cattle	Other Small Grain	Cattle	Poultry & Egg	Mushroom	Dairy	Fruit
6	Poultry & Egg	Oilseed	Nursery Product & Sod	Fruit	Cattle	Oilseed	Cattle
7	Dairy	Nursery Product & Sod	Dairy	Mushroom	Dairy	Other Small Grain	Horse & Pony
8	Fruit	Corn For Grain	Other Small Grain	Greenhouse Product	Corn for Grain	Hog	Vegetable
9	Hog	Fruit	Mushroom	Corn For Grain	Fruit	Cattle	Other Small Grain
10	Other Combination	Vegetable	Corn For Grain	Livestock Combination	Other Small Grain	Horse & Pony	Mushroom

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.10f – Top Ten Ranking by Gross Farm Receipts (all farms) for the Golden Horseshoe, 2001

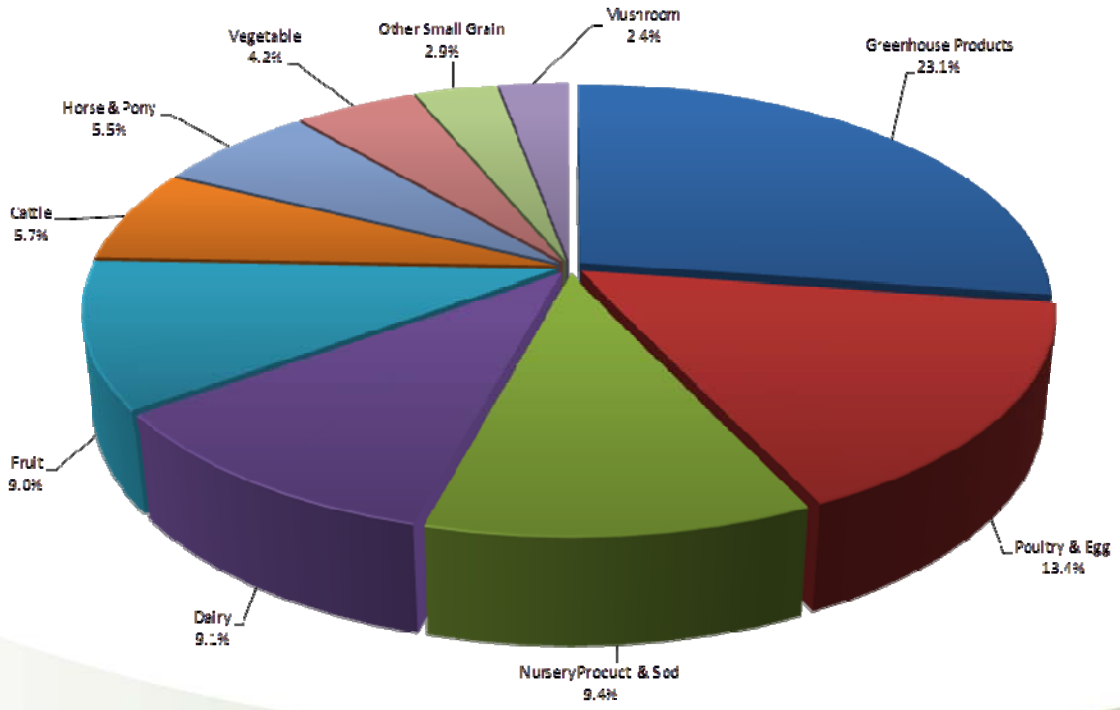
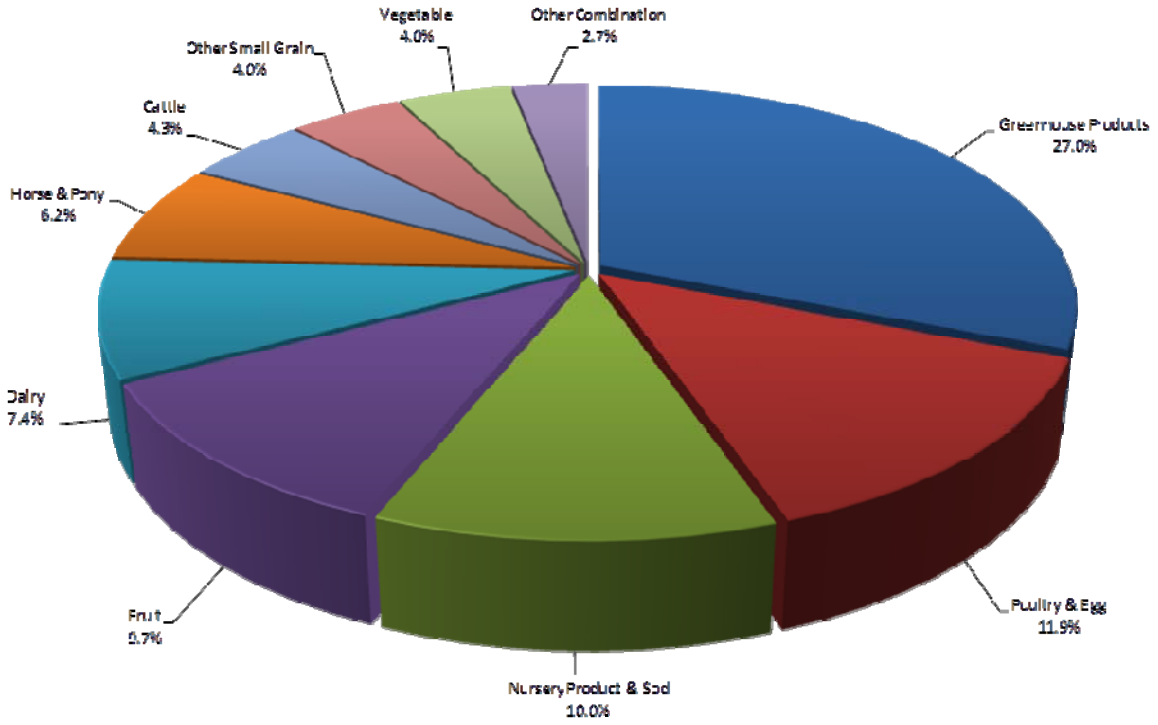


Figure 2.10g – Top Ten Ranking by Gross Farm Receipts (all farms), 2006

Rank	Regional Municipality of Halton	Regional Muncipality of Peel	Regional Municipality of York	Regional Municipality of Durham	City of Hamilton	Niagara Region	Golden Horseshoe
1	Greenhouse Product	Dairy	Vegetable	Dairy	Greenhouse Products	Greenhouse Products	Greenhouse Products
2	Nursery Product & Sod	Greenhouse Product	Greenhouse Product	Nursery Product & Sod	Poultry & Egg	Fruit	Poultry & Egg
3	Horse & Pony	Horse & Pony	Horse & Pony	Other Small Grain	Nursery Product & Sod	Poultry & Egg	Nursery Product & Sod
4	Cattle	Cattle	Cattle	Poultry & Egg	Mushroom	Nursery Product & Sod	Fruit
5	Other Small Grain	Other Small Grain	Nursery Product & Sod	Cattle	Dairy	Other Combination	Dairy
6	Fruit	Livestock Combination	Poultry & Egg	Horse & Pony	Vegetable	Dairy	Horse & Pony
7	Poultry & Egg	Oilseed	Dairy	Greenhouse Product	Other Small Grain	Oilseed	Cattle
8	Oilseed	Fruit	Mushroom	Corn For Grain	Horse & Pony	Other Small Grain	Other Small Grain
9	Dairy	Vegetable	Fruit	Fruit	Fruit	Hog	Vegetable
10	Field Crops	Nursery Product & Sod	Field Crops	Field Crops	Hog	Horse & Pony	Other Combination

Source: 2001 and 2006 Statistics Canada—Census of Agriculture—Special Order

Figure 2.101h – Top Ten Ranking by Gross Farm Receipts (all farms) for the Golden Horseshoe, 2006



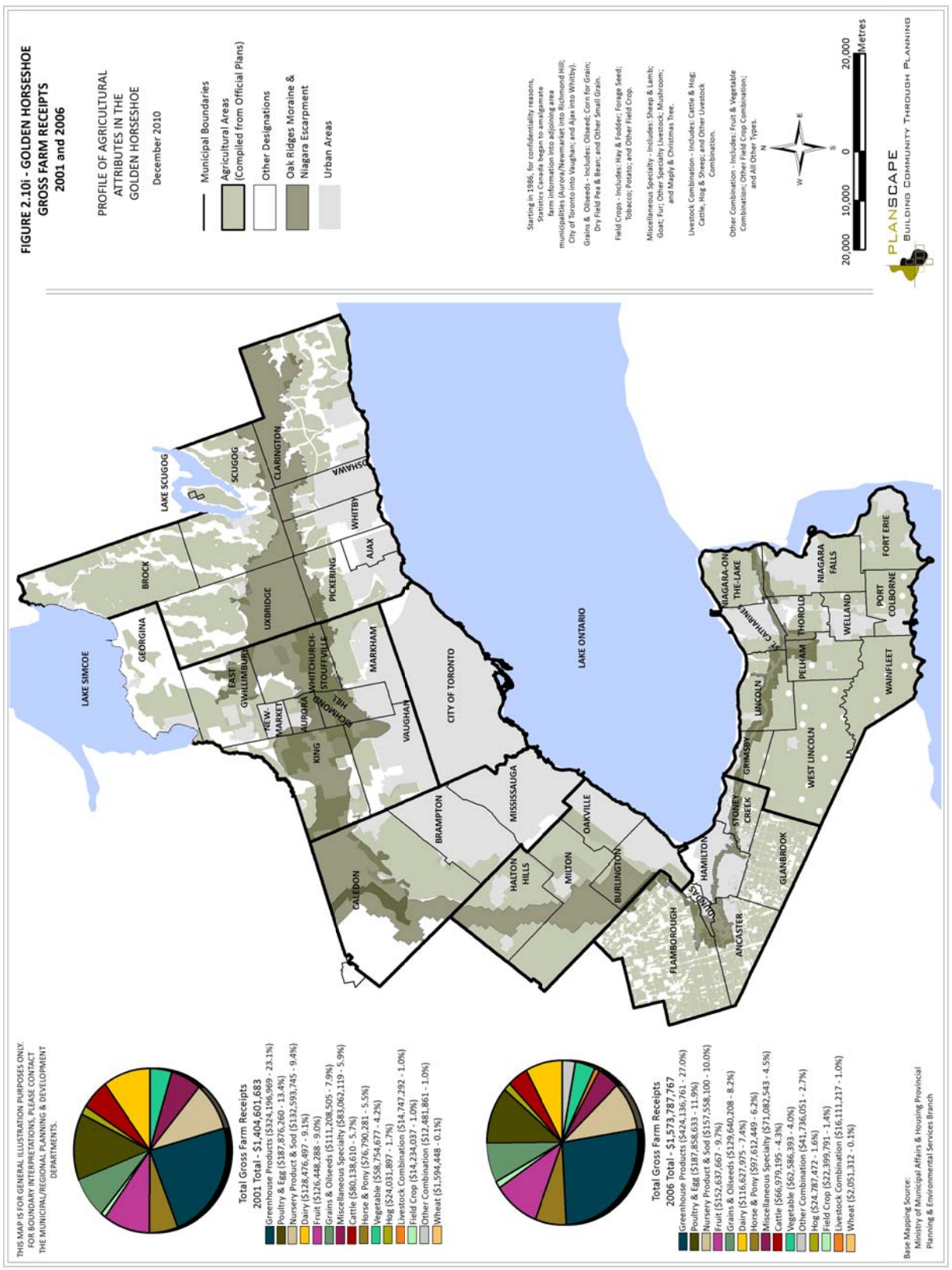


FIGURE 2.10i - GOLDEN HORSESHOE
GROSS FARM RECEIPTS
2001 and 2006
PROFILE OF AGRICULTURAL ATTRIBUTES IN THE GOLDEN HORSESHOE
December 2010
Municipal Boundaries
Agricultural Areas (Compiled from Official Plans)
Other Designations
Oak Ridges Moraine & Niagara Escarpment
Urban Areas
Starting in 1986, for confidentiality reasons, Statistics Canada began suppressing farm information into adjoining areas municipalities (Aurora /Newmarket into Richmond Hill; City of Toronto into Vaughan; and Ajax into Whitby).
Grains & Oilseeds - Includes: Oilseed; Corn for Grain; Dry Field Pea & Bean; and Other Small Grain.
Field Crops - Includes: Hay & Fodder; Forage Seed; Tobacco; Potato; and Other Field Crop.
Miscellaneous Specialty - Includes: Sheep & Lamb; Goat; Fur; Other Specialty Livestock; Mushroom; and Maple & Christmas Tree.
Livestock Combination - Includes: Cattle & Hog; Cattle, Hog & Sheep; and Other Livestock Combination.
Other Combination - Includes: Fruit & Vegetable Combination; Other Field Crop Combination; and All Other Types.
N
W
E
S
20,000 10,000 0 20,000 Metres
PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE SIMCOE
LAKE SCUGOG
LAKE ONTARIO
GEORGINA
BROCK
SCUGOG
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
UXBRIDGE
EAST GWILLIMBURY
NEWMARKET
AURORA
WHITCHURCH-STOUFFVILLE
RICHMOND HILL
MARKHAM
KING
VAUGHAN
CITY OF TORONTO
CALEDON
BRAMPTON
MISSISSAUGA
HALTON HILLS
MILTON
OAKVILLE
BURLINGTON
FLAMBOROUGH
HAMILTON
DUNDAS
ANCASTER
GLANBROOK
STONEY CREEK
GRIMSBY
LINCOLN
WEST LINCOLN
PELHAM
THOROLD
WELLAND
NIAGARA FALLS
PORT COLBORNE
FORT ERIE
WAINFLEET
NIAGARA-ON-THE-LAKE
ST. CATHARINES
Total Gross Farm Receipts
2001 Total - $1,404,601,683
Greenhouse Products ($324,196,969 - 23.1%)
Poultry & Egg ($187,876,260 - 13.4%)
Nursery Product & Sod ($132,593,745 - 9.4%)
Dairy ($128,476,497 - 9.1%)
Fruit ($126,448,288 - 9.0%)
Grains & Oilseeds ($111,208,505 - 7.9%)
Miscellaneous Specialty ($83,062,119 - 5.9%)
Cattle ($80,138,610 - 5.7%)
Horse & Pony ($76,790,281 - 5.5%)
Vegetable ($58,754,677 - 4.2%)
Hog ($24,031,897 - 1.7%)
Livestock Combination ($14,747,292 - 1.0%)
Field Crop ($14,234,037 - 1.0%)
Other Combination ($12,481,861 - 1.0%)
Wheat ($1,594,448 - 0.1%)
Total Gross Farm Receipts
2006 Total - $1,573,787,767
Greenhouse Products ($424,136,761 - 27.0%)
Poultry & Egg ($187,858,633 - 11.9%)
Nursery Product & Sod ($157,558,100 - 10.0%)
Fruit ($152,637,667 - 9.7%)
Grains & Oilseeds ($129,640,208 - 8.2%)
Dairy ($116,627,975 - 7.4%)
Horse & Pony ($97,612,449 - 6.2%)
Miscellaneous Specialty ($71,082,543 - 4.5%)
Cattle ($66,979,195 - 4.3%)
Vegetable ($62,586,393 - 4.0%)
Other Combination ($41,736,051 - 2.7%)
Hog ($24,787,472 - 1.6%)
Field Crop ($22,399,791 - 1.4%)
Livestock Combination ($16,111,217 - 1.0%)
Wheat ($2,051,312 - 0.1%)
THIS MAP IS FOR GENERAL ILLUSTRATION PURPOSES ONLY. FOR BOUNDARY INTERPRETATIONS, PLEASE CONTACT THE MUNICIPAL/REGIONAL PLANNING & DEVELOPMENT DEPARTMENTS.
Base Mapping Source:
Ministry of Municipal Affairs & Housing Provincial Planning & Environmental Services Branch

These figures show interesting patterns. In Durham and Peel, dairy continues to be the dominant commodity. In York, dairy ranks seventh and vegetables and greenhouse products rank first. This ranking is explained by the fact that the Holland Marsh is partially located in York Region. In Halton, dairy continues to decline, greenhouse and nursery and sod are the top two commodities and the value of fruit and vegetable production increased. Between 2001 and 2006, Niagara production was dominated by greenhouse with fruit and poultry ranking second and third. In Hamilton, greenhouse products replaced poultry and egg as the top ranked commodity in terms of gross farm receipts. Despite slipping to second place in Hamilton, poultry and egg production increased in value between 2001 and 2006.

The nursery and sod sector is an interesting component of production in areas in close proximity to urban markets. Not only is this a significant component of agricultural production in Ontario, as areas become more urban there is generally an increase in this type of production. This is due to a number of factors including access to a large market; close proximity for just in time delivery; access to services including piped water, demand for products in active development areas and relatively high return on smaller acreages.

Greenhouse production tends to increase for many of the same reasons that support nursery and sod operations. Access to market, to urban type services (water and power) and proximity to sophisticated transportation options all support these types of production.

An analysis of the changes in distribution of gross farm receipts between 2001 and 2006, as shown on **Figure 2.10i**, confirms that the agricultural economy in the GTA continues to be diverse. Although greenhouse production is dominant, there continues to be a diverse production profile comprised of a significant number of products. However, there is a clear trend to production that is profitable on smaller acreages and that caters to an urban market. With the cost of land in the Golden Horseshoe the need for a high per acre return is critical.

The decline in dairy is notable in areas experiencing urbanization. A common issue in sustaining dairy operations is the cost of land and the uncertainty of return on investment. To remain current, dairy operators must invest in expensive new facilities. In areas where the future of agriculture is less certain there may be a reluctance to make this investment. When one generation retires, it is expensive for a new generation to buy an operation where land values are elevated. Agricultural services tend to get pushed out of areas which are experiencing development pressures and there is an increase in conflicts between urban and rural lifestyles. The quota system facilitates sales to operators in areas where the future of agriculture is more certain. Often it is easier to relocate than to deal with the costs and uncertainties of operations in developing areas. At this point the protection of the right to farm is not sufficiently strong to counter the conflicts that can arise.

2.2.9 Diversity of Production

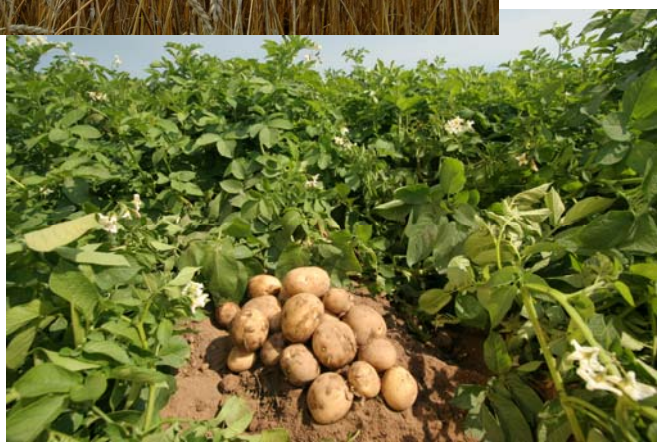
The Golden Horseshoe, because of its geography, soil types, proximity to water and unique micro climates has the capacity to produce a wide variety of crops. Although the summary of commodity production provided previously categories product according to twelve headings, as illustrated in the following tables, within each category there are numerous sub classifications. Golden Horseshoe producers grow most of these items.

This ability to grow a wide range of product is a huge benefit in the Golden Horseshoe. As new markets for different food types emerge, Golden Horseshoe farmers have the capacity and physical resources to respond. To take advantage of this links between consumers and producers need to be strengthened so local farmers can provide the food the diverse population of the region and the world, is demanding.

Figure 2.11—Commodity Breakdown (Based on Statistics Canada)

Cattle & Calves	Calves Under 1 Year
	Steers 1 Year and Over
	Total Heifers 1 Year and Over
	Heifers for Slaughter or Feeding
	Heifers for Beef Herd Replacement
	Heifers for Dairy Herd Replacement
	Total Cows
	Beef Cows
	Dairy Cows
	Bulls 1 Year and Over
Pigs	Boars
	Sows and Gilts For Breeding
	Nursing and Weaner Pigs
	Grower and Finishing Pigs
Other Livestock and Bees	Wild Boars
	Mink
	Fox
	Bison (Buffalo)
	Llamas and Alpacas
	Deer (Excluding Wild Deer)
	Elk
	Honeybees and Other Pollinating Bees
Poultry Inventory	Total Hens & Chickens
	Broilers, Roasters and Cornish Hens
	Pullets Under 19 Weeks Intended for Laying
	Laying Hens 19 Weeks and Over
	Laying Hens in Hatchery Supply Flocks
	Turkeys
	Other Poultry
Poultry Production	Broiler, Roaster and Cornish Hen Production
	Turkey Production
Commercial Poultry Hatcheries on Farms	Chicks and Other Poultry Hatched

Figure 2.11—Commodity Breakdown (Based on Statistics Canada)



Hay & Field Crops	Spring Wheat
	Durum Wheat
	Winter Wheat
	Oats
	Barley
	Mixed Grains
	Corn for Grain
	Corn for Silage
	Fall Rye
	Spring Rye
	Canola
	Soybeans
	Flaxseed
	Dry Field Peas
	Chick Peas
	Lentils
	Dry White Beans
	Other Dry Beans
	Alfalfa & Alfalfa Mixtures
	All Other Tame Hay and Fodder Crops
	Forage Seed Harvested as Seed
	Potatoes
	Mustard Seed
	Sunflowers
	Canary Seed
	Tobacco
	Ginseng
	Buckwheat
	Sugar Beets
	Caraway Seed
	Triticale and Other Field Crops
Fruit	Apple
	Pears
	Plums & Prunes
	Cherries (Sweet)
	Cherries (Sour)
	Peaches
	Apricots
	Strawberries
	Raspberries
	Grapes
	Blueberries
	Cranberries
	Saskatoons
	Other Fruits, Berries and Nuts

Figure 2.11—Commodity Breakdown (Based on Statistics Canada)

Miscellaneous Specialty	Sheep & Lamb
	Rams
	Ewes
	Lambs
	Goat
	Horse & Pony
	Fur
	Other Livestock Specialty
	Mushroom
	Greenhouse Product
	Greenhouse Flowers
	Greenhouse Vegetables
	Other Greenhouse Products
	Nursery Product & Sod
	Maple & Christmas Tree
Livestock Combination	Cattle & Hog
	Cattle, Hog & Sheep
	Other Livestock Combination
Vegetable	Sweet Corn
	Tomatoes
	Cucumbers
	Green Peas
	Green & Wax Beans
	Cabbage
	Chinese Cabbage
	Cauliflower
	Broccoli
	Brussels Sprouts
	Carrots
	Rutabagas and Turnips
	Beets
	Radishes
	Dry Onion, Yellow, Spanish, Cooking, etc…
	Shallots and Green Onions
	Celery
	Lettuce
	Spinach
	Peppers
	Pumpkins, Squash and Zucchini
	Rhubarb
	Aspargus
	Other Vegetables
Other Combination	Fruit & Vegetable Combination
	Other Field Crop Combination
	All Other Types

Equine Sector

One component of the agricultural sector that is often overlooked is the equine sector. This type of farming, which is reported under the general category of "Miscellaneous Specialty" by Statistics Canada, has a major presence in the Golden Horseshoe and has a significant annual economic impact.

Figure 2.12—Economic Impact of the Horse Industry by Region, 2001[1]

Region / City	Estimated Number of Farms	Estimated Number of Horses	Annual Economic Impact (million $)	Investment in Fixed Assets (million $) 7704
Niagara	1285	8534	15.2	155.7
Hamilton	874	7612	13.6	138.9
Halton	1043	13901	24.8	253.7
Peel	736	10621	18.9	193.8
York [2]	1515	19544	34.8	356.7
Durham	2251	18341	32.7	334.7
Average			140	
Total	7704	66042	23.3	1440.7

The contribution of equine activities stem from a variety of activities ranging from pregnant mare urine for human estrogen-replacement therapy to lessons for children to high performance horses in use for Olympic or other international competition. Horse Operations are big supporters of other agricultural services including veterinary care, farrier services and purchase of feed and hay and contribute to quality of life for residents of the area.

[1] Wright, Dr. Robert, Ontario Ministry of Agriculture, Food and Rural Affairs, Fergus, Ontario August 2005.

[2] Includes the City of Toronto

2.2.10 Farm Classification

The number of farm operations in categories generating in excess of $250,000 in GFR's per annum increased in the Golden Horseshoe between 2001 and 2006. This is a positive trend since these are the operations that account for the majority of the agricultural products in the country. Many of the smallest operations, which generate less than $50,000 in GFR's per year, tend to be life-style operations. The number of farms in this category is declining.

Figure 2.13 – Number of Farms Classified by Gross Farm Receipts, 2001 and 2006

Geographic Location	Number of Farms	Under $10,000	$10,000 - $24,999	$25,000 - $49,999	$50,000 - $99,999	$100,000 - $249,999	$250,000 - $499,999	$500,000 +
2001								
Ontario	59,728	15,370	11,378	7,862	6,542	9,587	5,493	3,496
Regional Municipality of Halton	619	190	111	87	71	73	45	42
Regional Municipality of Peel	522	127	89	62	51	105	54	34
Regional Municipality of York	1,020	314	164	126	102	154	74	86
Regional Municipality of Durham	1,709	555	366	214	153	203	136	82
City of Hamilton	1,026	289	196	126	105	120	87	103
Niagara Region	2,266	664	351	248	222	314	244	223
Golden Horseshoe	7,162	2,139	1,277	863	704	969	640	570
2006								
Ontario	57,211	14,500	10,828	7,397	6,521	7,965	5,589	4,411
Regional Municipality of Halton	566	173	101	69	77	51	54	41
Regional Municipality of Peel	483	120	83	52	50	95	54	29
Regional Municipality of York	972	265	181	109	110	134	80	93
Regional Municipality of Durham	1,686	541	354	211	167	177	125	111
City of Hamilton	975	260	190	113	98	126	85	103
Niagara Region	2,236	591	381	234	219	289	258	264
Golden Horseshoe	6,918	1,950	1,290	788	721	872	656	641

Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

2.2.11 Operating Costs

Figures 2.14 a, b & c summarizes average operating costs per acre in the GH. These costs are generally higher than the average for Ontario, a fact that can be explained by the cost of operating in this area and the type of agriculture that occurs. In Niagara for example, the predominance of greenhouse operations with higher operating costs due to the intensive inputs required, particularly for labour and energy, will increase the average per acre.

Figure 2.14 a – Farm Operating Expenses and Operating Costs, 2001 and 2006

Geographic Location	2001					2006				
	Number of Farms	Farmland Acres	Farm Operating Expenses ($)	Per Acre ($)	Per Farm ($)	Number of Farms	Farmland Acres	Farm Operating Expenses ($)	Per Acre ($)	Per Farm ($)
Ontario	59,728	13,507,357	7,829,246,574	580	131,082	57,211	13,310,216	8,843,882,426	664	154,584
Regional Municipality of Halton	619	98,758	123,410,370	1,250	199,371	566	88,899	108,315,374	1,218	191,370
Regional Municipality of Peel	522	104,433	103,423,903	990	198,130	483	95,289	67,634,717	710	140,030
Regional Municipality of York	1,020	175,965	158,339,483	900	155,235	972	167,076	194,137,165	1,162	199,730
Regional Municipality of Durham	1,709	330,286	199,393,063	604	116,672	1,686	326,702	215,133,483	659	127,600
City of Hamilton	1,026	138,879	192,790,957	1,388	187,905	975	133,205	196,586,027	1,476	201,627
Niagara Region	2,266	232,817	435,859,856	1,872	192,348	2,236	231,728	583,529,110	2,518	260,970
Golden Horseshoe	7,162	1,081,138	1,213,217,632	1,122	169,396	6,918	1,042,899	1,365,335,876	1,309	197,360

Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

Figure 2.14b – Operating Costs per Acre ($) Comparison of 2001 and 2006

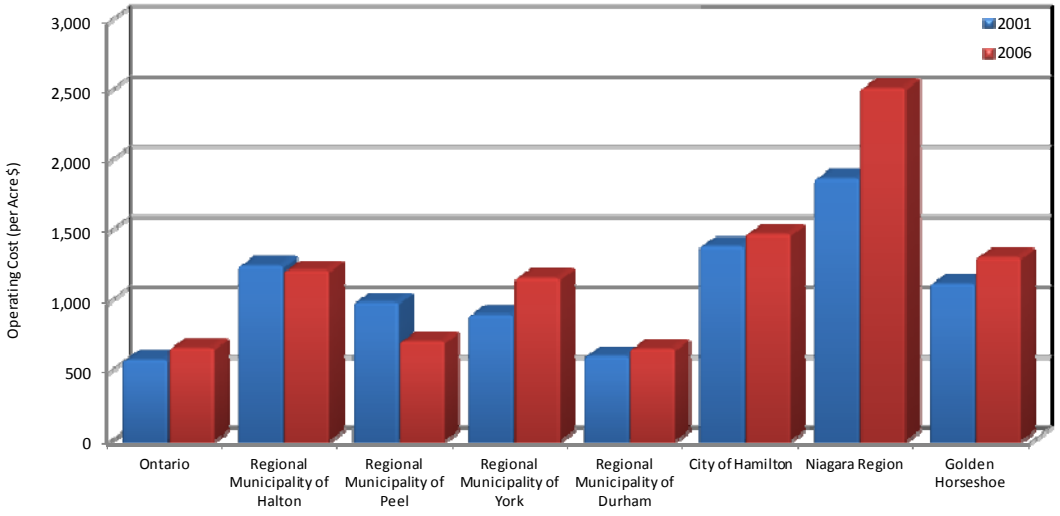
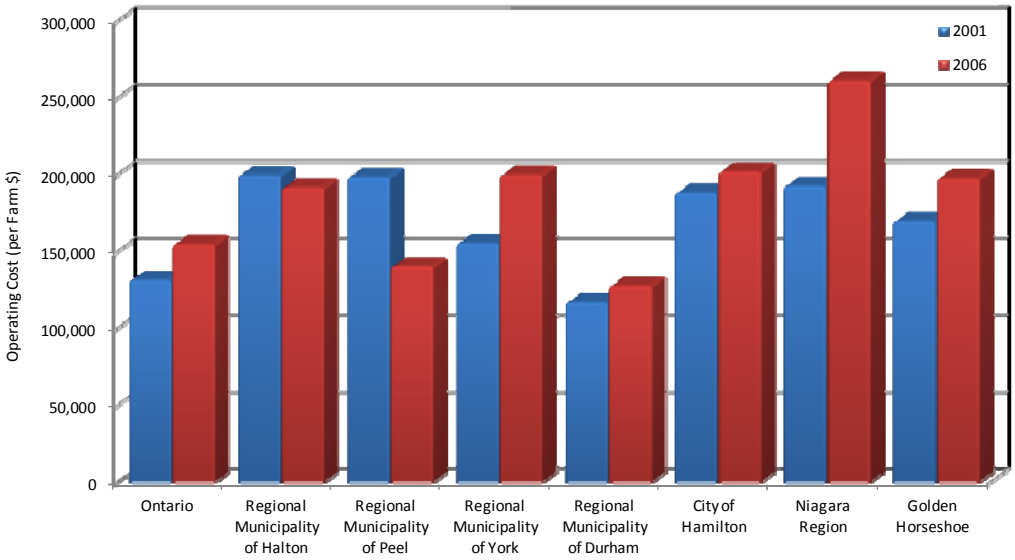


Figure 2.14c – Operating Costs per Farm ($) Comparison of 2001 and 2006



Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

2.2.12 Expense / Revenue Ratios—Return of Investment

The comparison of the ratio of expenses to revenues in the GH agriculture industry between the years 2001 and 2006 indicates that extent to which revenues exceed costs. In 2001, the proportion of expenses to revenues was 0.86. In 2006, this rate increased to 0.87. These expense-to-revenue ratios are summarized in Figure 2.15 a which confirms a slight variation in ratios across the regions. Halton, Peel and York experienced a decline in the expense to revenue ratio; in Niagara and Durham it increased; and in Hamilton it remained constant.

Figure 2.15 a– Ratio of Cost/Revenues, 2001 and 2006

	2001				2006			
Geographic Location	Receipts	Expenses	Net Revenue	Ratio Expenses/ Revenues	Receipts	Expenses	Net Revenue	Ratio Expenses/ Revenues
Ontario	9,115,454,790	7,829,246,574	1,286,208,216	0.86	10,342,031,229	8,843,882,426	1,498,148,803	0.86
Regional Municipality of Halton	141,473,312	123,410,370	18,062,942	0.87	132,041,893	108,315,374	23,726,519	0.82
Regional Municipality of Peel	116,536,793	103,423,903	13,112,890	0.89	81,629,248	67,634,717	13,994,531	0.83
Regional Municipality of York	178,963,186	158,339,483	20,623,703	0.88	224,119,932	194,137,165	29,982,767	0.87
Regional Municipality of Durham	233,890,944	199,393,063	34,497,881	0.85	239,539,007	215,133,483	24,405,524	0.90
City of Hamilton	222,342,429	192,790,957	29,551,472	0.87	224,776,914	196,586,027	28,190,887	0.87
Niagara Region	511,395,019	435,859,856	75,535,163	0.85	671,680,773	583,529,110	88,151,663	0.87
Golden Horseshoe	1,404,601,683	1,213,217,632	191,384,051	0.86	1,573,787,767	1,365,335,876	208,451,891	0.87

Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

Figure 2.15b – Ratio of Cost/Revenue , 2001 and 2006

Geographic Location	2001		Ratio	2006		Ratio
	Receipts	Expenses	Costs/Revenues	Receipts	Expenses	Costs/Revenues
Ontario	9,115,454,790	7,829,246,574	0.86	10,342,031,229	8,843,882,426	0.86
Surrounding GTA	1,237,892,860	1,092,846,536	0.88	1,369,918,696	1,186,784,331	0.87
GTA	**670,864,235**	**584,566,819**	**0.87**	**677,330,080**	**585,220,739**	**0.86**
Regional Municipality of Halton	**141,473,312**	**123,410,370**	**0.87**	**132,041,893**	**108,315,374**	**0.82**
Burlington	23,974,891	22,698,362	0.95	30,613,802	26,040,401	0.85
Oakville	3,009,463	2,565,469	0.85	3,160,422	3,163,270	1.00
Milton	34,419,693	31,626,728	0.92	40,515,672	31,097,507	0.77
Halton Hills	80,069,265	66,519,811	0.83	57,751,997	48,014,196	0.83
Regional Municipality of Peel	**116,536,793**	**103,423,903**	**0.89**	**81,629,248**	**67,634,717**	**0.83**
Mississauga	5,146,275	5,144,828	1.00	2,825,941	2,608,438	0.92
Brampton	45,540,058	41,351,496	0.91	15,839,014	13,208,594	0.83
Caledon	65,850,460	56,927,579	0.86	62,964,293	51,817,685	0.82
Regional Municipality of York	**178,963,186**	**158,339,483**	**0.88**	**224,119,932**	**194,137,165**	**0.87**
Vaughan *	21,256,443	18,450,865	0.87	42,002,660	36,397,515	0.87
Richmond Hill *	8,115,286	7,473,924	0.92	20,805,898	18,874,660	0.91
Markham	15,800,432	14,033,260	0.89	13,599,449	11,785,558	0.87
King	49,805,134	44,699,797	0.90	24,403,926	21,197,574	0.87
Whitchurch-Stouffville	27,182,691	23,724,351	0.87	74,422,468	62,610,642	0.84
East Gwillimbury	41,087,262	36,005,537	0.88	35,358,474	31,680,727	0.90
Georgina	15,715,938	13,951,749	0.89	13,527,057	11,590,486	0.86
Regional Municipality of Durham	**233,890,944**	**199,393,063**	**0.85**	**239,539,007**	**215,133,483**	**0.90**
Pickering	19,364,778	18,843,873	0.97	19,931,169	17,885,280	0.90
Whitby *	35,651,487	27,525,731	0.77	27,192,220	24,630,780	0.91
Oshawa	18,673,603	10,328,905	0.55	12,340,090	10,985,653	0.89
Clarington	48,632,958	42,574,781	0.88	57,578,311	51,040,940	0.89
Uxbridge	34,469,444	32,433,023	0.94	49,607,672	44,763,232	0.90
Scugog	45,147,975	39,722,460	0.88	37,057,762	34,862,540	0.94
Brock	31,950,699	27,964,290	0.88	35,831,783	30,965,058	0.86
Regional Municipality of Niagara	**511,395,019**	**435,859,856**	**0.85**	**671,680,773**	**583,529,110**	**0.87**
Fort Erie	5,905,919	5,317,387	0.90	6,269,717	5,276,392	0.84
Port Colborne	7,544,540	6,861,958	0.91	7,704,231	7,248,410	0.94
Wainfleet	30,328,473	25,706,688	0.85	37,979,430	33,258,179	0.88
West Lincoln	68,058,325	57,089,015	0.84	112,271,660	95,269,535	0.85
Pelham	40,636,003	33,533,458	0.83	39,731,764	37,457,633	0.94
Welland	2,208,029	2,280,836	1.03	3,949,003	2,108,969	0.53
Thorold	7,428,360	5,980,131	0.81	11,975,511	11,013,800	0.92
Niagara Falls	6,133,914	5,481,298	0.89	9,800,302	8,752,758	0.89
Niagara-on-the-Lake	109,847,469	90,429,689	0.82	143,297,060	122,340,116	0.85
St. Catharines	46,178,766	38,894,451	0.84	73,596,789	66,989,649	0.91
Lincoln	160,372,708	140,719,048	0.88	195,105,545	169,629,669	0.87
Grimsby	26,752,513	23,565,897	0.88	29,999,761	24,184,000	0.81
City of Hamilton	**$222,342,429**	**$192,790,957**	**0.87**	**$224,776,914**	**$196,586,027**	**0.87**
Stoney Creek & Hamilton	$15,978,356	$14,876,936	0.93	$19,319,192	$17,093,377	0.88
Glanbrook	$41,971,411	$36,583,630	0.87	$41,182,445	$35,724,580	0.87
Ancaster	$28,022,573	$23,639,199	0.84	$27,123,412	$24,278,951	0.90
Flamborough & Dundas	$136,370,089	$117,691,192	0.86	$137,154,429	$119,488,445	0.87

What can be concluded from a review of the expenses to revenue ratios is that agriculture in the Golden Horseshoe generates a return on investment that is consistent with or in many instances higher than other areas of the province. The productivity of the area and the nature of the commodities that dominate in the Golden Horseshoe generally provide a reasonable return. It is not the return on investment for this area which is a challenge, it is the overall return on investment in agriculture. If the problems impacting the profitability of agriculture generally can be overcome, agriculture in the Golden Horseshoe is viable.

2.2.13 Farm Capital

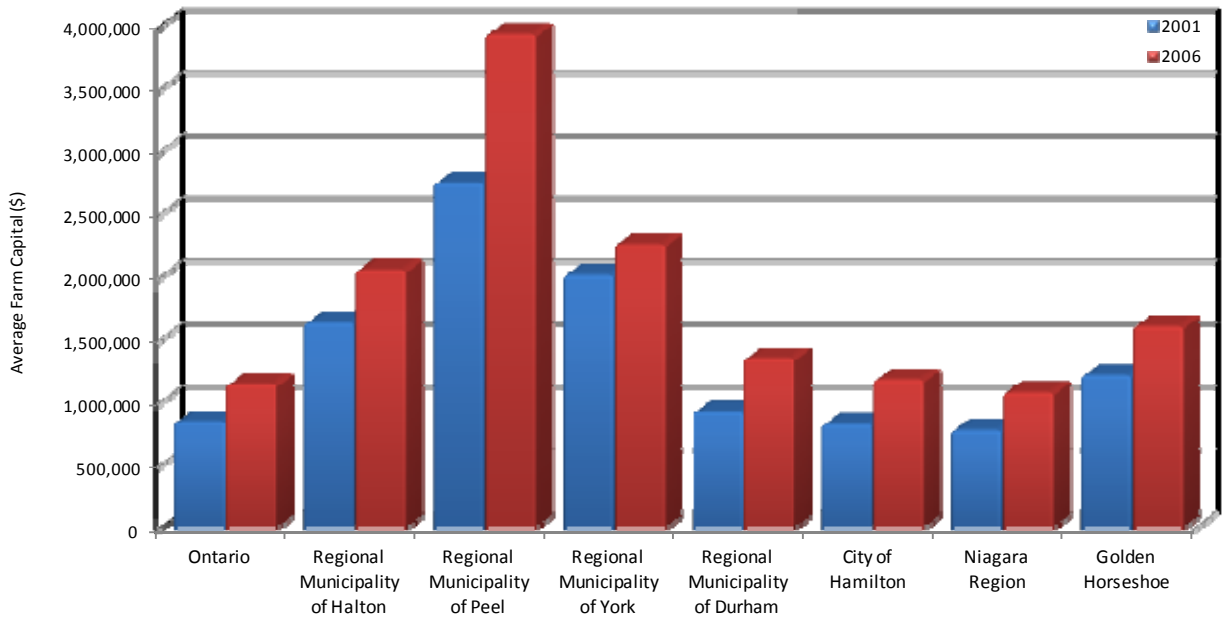
Farm capital gives the total value of capital held by farms. It is not a measure of capital investment, but rather the total value of all capital including machinery, land, buildings as well as livestock and poultry. These figures do not include the cost of quota for supply management systems.

In 2001, the total farm capital value for the GH was 8.7 billion dollars. In 2006, the value had increased to $11.1 billion. There was an associated increase in average per farm capital in the GH as a whole, between 2001 and 2006, to $1.6 million. However, within the Regions there was considerable variation. As shown on **Figure 2.16 a & b**, Peel experienced a larger increase than the other regions, reflected in the higher average capital per acre value for Peel.

Figure 2.16a – Farm Capital Data, 2001 and 2006

Geographic Location	2001			2006		
	Number of Farms	Farm Capital	Average Farm Capital ($)	Number of Farms	Farm Capital	Average Farm Capital ($)
Ontario	59,728	50,529,783,505	845,998	57,211	65,336,796,501	1,142,032
Regional Municipality of Halton	619	1,009,980,734	1,631,633	566	1,162,905,055	2,054,603
Regional Municipality of Peel	522	1,433,724,388	2,746,598	483	1,899,013,166	3,931,704
Regional Municipality of York	1,020	2,053,980,635	2,013,707	972	2,196,500,117	2,259,774
Regional Municipality of Durham	1,709	1,577,423,794	923,010	1,686	2,276,879,803	1,350,463
City of Hamilton	1,026	845,093,210	823,678	975	1,150,076,588	1,179,566
Niagara Region	2,266	1,764,362,508	778,624	2,236	2,411,945,808	1,078,688
Golden Horseshoe	7,162	8,684,565,269	1,212,589	6,918	11,097,320,537	1,604,123

Figure 2.16b – Average Farm Capital ($), 2001 and 2006



Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

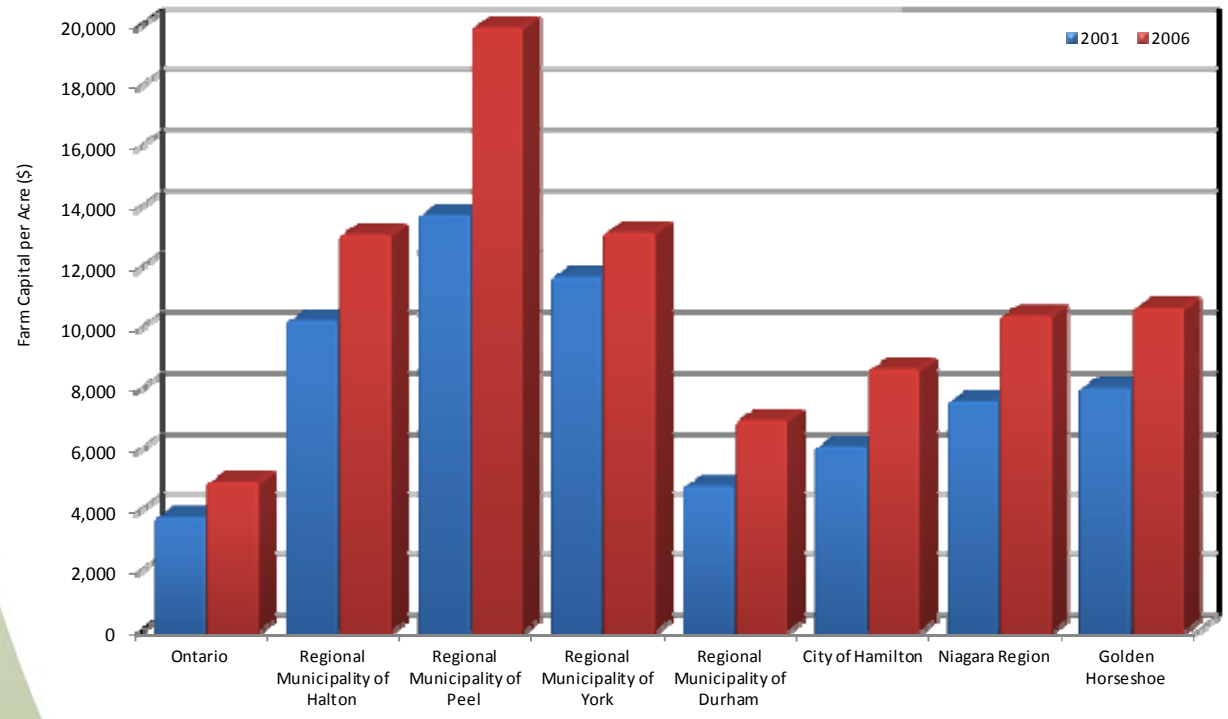
Relative to other regional municipalities and counties in Ontario, the regional municipalities in the Golden Horseshoe have higher per acre farm capital values. This will be due to the higher land values in the area. Figure 2.17 a & b compares the total farm capital of the GH regional municipalities with Ontario.

Figure 2.17a – Farm Capital per Acre, 2001 and 2006

Geographic Location	2001			2006		
	Farm Capital	Farmland Area (Acres)	Farm Capital Per Acre ($)	Farm Capital	Farmland Area (Acres)	Farm Capital Per Acre ($)
Ontario	50,529,783,505	13,507,357	3,741	65,336,796,501	13,310,216	4,909
Regional Municipality of Halton	1,009,980,734	98,758	10,227	1,162,905,055	88,899	13,081
Regional Municipality of Peel	1,433,724,388	104,433	13,729	1,899,013,166	95,289	19,929
Regional Municipality of York	2,053,980,635	175,965	11,673	2,196,500,117	167,076	13,147
Regional Municipality of Durham	1,577,423,794	330,286	4,776	2,276,879,803	326,702	6,969
City of Hamilton	845,093,210	138,879	6,085	1,150,076,588	133,205	8,634
Niagara Region	1,764,362,508	232,817	7,578	2,411,945,808	231,728	10,409
Golden Horseshoe	8,684,565,269	1,081,138	8,033	11,097,320,537	1,042,899	10,641

Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

Figure 2.17b – Farm Capital per Acre, 2001 and 2006



Source: 2006 Statistics Canada—Census of Agriculture—Special Order; 2001 Statistics Canada—Catalogue No. 95F0301XIE

2.2.14 Age Profile

While the farm population is aging, when the statistics are studied closely, they are not as alarming as is sometimes portrayed in the media. The trend to aging which is reflected in agricultural statistics is also apparent in the general population, especially in rural areas. It is a trend that is also characteristic of small business owners in rural areas.

For agriculture, if the age profile of operators in the higher earning categories is considered, the average age of operators' falls. In the regions of Golden Horseshoe, the majority of operators of properties generating in excess of $500,000 per year are in the age range of 35 to 54 years. Farms are permitted to report up to three operators per property. Therefore, properties where there is an intergenerational operation, which is common in farming, can skew the profile.

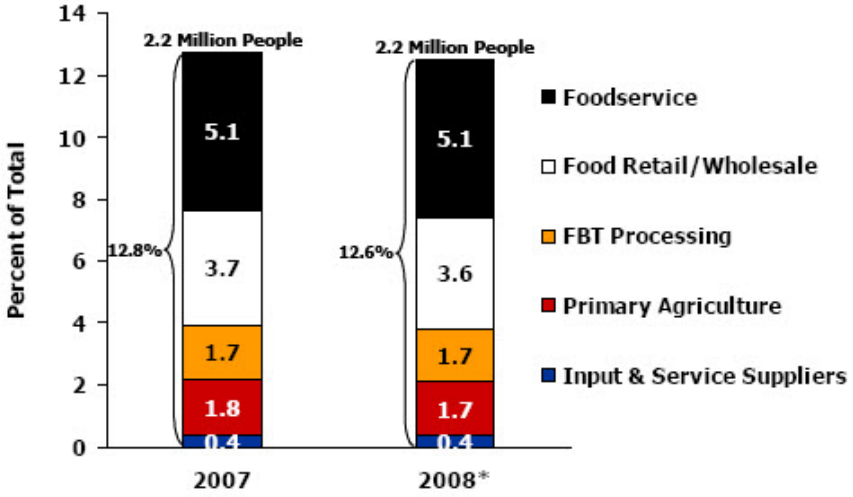
Although the situation regarding average the age of farmers may not be as much of a concern as sometimes reported, there is a definite aging trend in farming. The statistic that is of concern is the relatively low number of operators in the "under 35 years" category. Without younger farmers coming into the industry, the future will be bleak.

In the Golden Horseshoe the issue of bringing younger operators into the sector is made more challenging by the higher cost of setting up operation in an area of higher land prices and a production profile characterized by capital intensive operations. Unless there is family support, which can be difficult with farmers pensions tied up in their investment, or programs to assist with start up costs, young farmers wanting to get into agriculture are unlikely to look to the Golden Horseshoe.

2.3 Input and Service Suppliers

This component of the sector, which was shown on **Figure 17** is a relatively small part of the food and farming sector, includes the businesses that provide services to primary agriculture.

Figure 2.18 – Chart B1.3—Agriculture and Agri-Food System's Contribution to Employment, 2007 and 2008



Source: Statistics Canada and AAFC calculations.
Note: *2008 data is preliminary.

Certain parts of the region which remain predominantly rural, are well served by this sector. Both Niagara and Durham have a network of strong farm services supply businesses. These regions have become hubs for services and draw business from considerable distances.

In other regions, which are subject to more urbanization, the farm service infrastructure is disappearing. As the number of farmers declines, the critical mass required to support farm services such as implement dealers, grain elevators, large animal veterinarians is gone and the businesses relocate to more rural areas. This creates problems of access for remaining farmers and increases the cost of doing business as they have to travel further for services.

Even where services do exist, problems accessing them are growing. The issue of traffic congestion in the Golden Horseshoe makes the task of moving product to market more and more challenging. As a specific example, the time required to get to the Toronto Food Terminal which is a destination for many small producers, continues to increase as congestion in the City worsens. Warehousing and distribution is an ongoing problem for small producers, many of whom do not produce the volumes required to support their own facilities. The "just in time" nature of the product which demands speedy and efficient delivery, compounds the problem.

2.4 Summary and Conclusions

Although it is subject to pressures, primary production in the Golden Horseshoe continues to have a major presence. Total farm capital in the region exceeds $8.7 billion. The number of operations generating in excess of $500,000 in annual GFR's is growing. Farms are getting bigger. The area of farmland continues to decline but the rate of decline is slowing.

The production profile continues to be diverse with trends towards crops that are geared to an urban market. Greenhouse operations, which benefit from a large consumer market and access to urban services such as three phase power, municipal water and access to transportation networks, dominate agricultural production. The number of nursery, fruit and vegetable operations which also benefit from proximity to large markets and offer a relatively high return on smaller acreages are accounting for an increasingly higher percentage of agricultural production.

While the primary agricultural sector is not without problems, during the census period between 2001 and 2006, for which the last census data is available, it proved to be resilient. With the establishment of the Greenbelt and the potential for permanent protection of a large rural land base the future should be more certain. For the specialty crop areas, the protection for agriculture land is strong. If the economics for production are also strong, agriculture in these areas should thrive.

However there are problems regarding the future of agriculture in other areas of the GH that need to be addressed. Investment in agriculture in the region is expensive and access to capital tight. The return on investments for agriculture generally presents financial challenges for both new and existing farmers. Implementation of the Greenbelt may have secured a large area for permanent rural uses but the greenbelt is a land use protection tools. Unless farmers within the Greenbelt are able to make a good return on their investment, protection of the land base alone will not ensure continuing agricultural production.

In areas of the Golden Horseshoe outside of the Greenbelt the future of agriculture is more uncertain. Farmers working in the area within the expanded 2031 urban boundaries have no future in agriculture. The decisions have been made to convert these lands for urban uses.

Those farming between the 2031 urban boundary and the Greenbelt face an uncertain future. As 2031 approaches, additional land may be required for urban growth. Why would farmers invest in operations that may not have a future after 2031? To ensure a reasonable return on investment especially for crops such as orchards that require a long period of time to come into production, the economics would not make sense.

Until the public places as high an economic value on farming and farmland as they do on development; agriculture in the Golden Horseshoe in areas around urban centres and outside the Greenbelt faces a bleak future.

1 Note that agricultural statistics for the City of Toronto are included with statistics for York Region for confidentiality reasons.

2 Planscape, Region of Niagara, Regional Economic Impact study" July 2003, pg 4.14

3 The farm type breakdown shown on these figures is as per Statistics Canada's definitions. The Census of Agriculture classifies farms into different "farm types". This is done by estimating the potential gross farm receipts from the inventories of crops and livestock for each farm. The commodity or group of commodities that account for more than 51 percent of potential farm receipts determines the farm type.

Chapter 3 - Food and Farming Cluster—Food Processing and Distribution

In this chapter, the other components of the food and farming cluster; food processing, and food distribution (comprised of retail / wholesale and foodservice) are addressed. In preparing this summary, an extensive number of publications were reviewed to get insight into the extent of the sector, its strengths and challenges and the plans and recommendations that have been proposed to support it. The intent is not to repeat other work that has been done but to capture the primary issues impacting the sector that should be considered in developing a food and farming strategy that is specific to the study region.

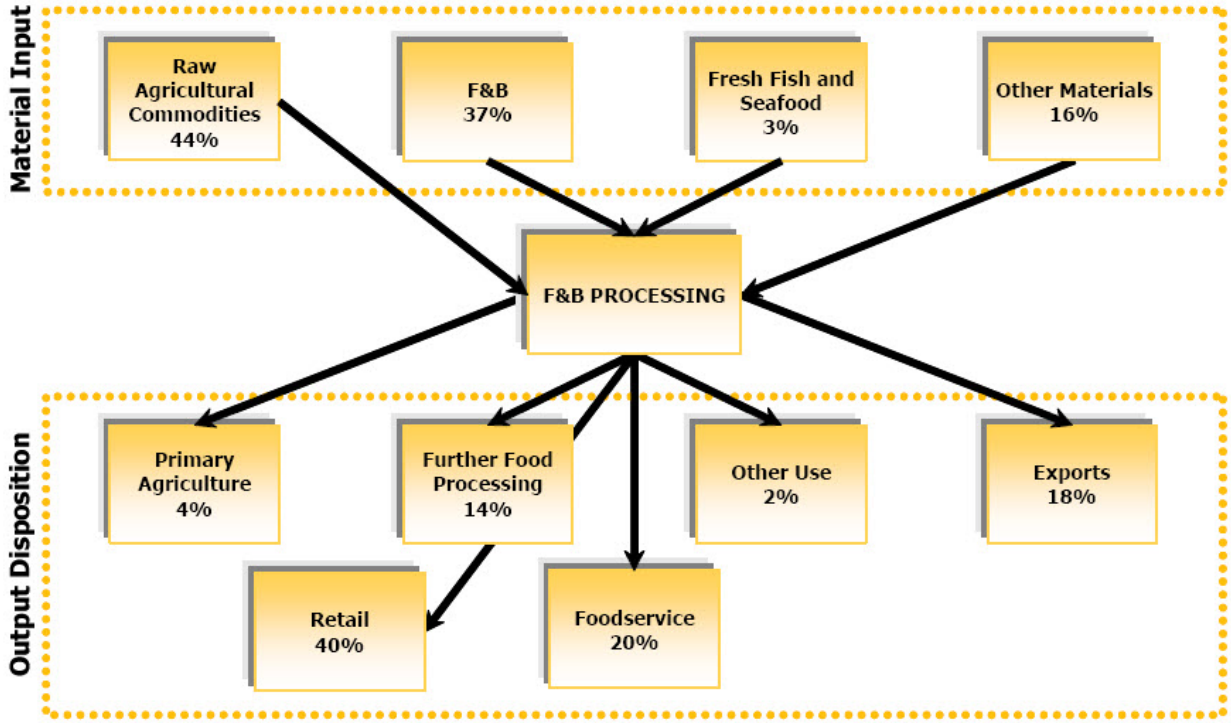
3.1 Food Processing

Food processing is a vital component of the manufacturing industrial base in the Golden Horseshoe (GH). According to Statistics Canada census data, between 2001 and 2006 the food and beverage processing sector's revenue from manufacturing in the region increased by 19.8% to $12.1 billion and its relative share of total manufacturing rose to 8.6%[1]. The total number of employees in the sector stood at just under 40,000 in 2006.[2]

3.1.1 Sector Diversity

Although we tend to speak of the food and beverage processing sector as if it were a homogenous industry, it is actually very diverse and therefore difficult to characterize simply. This is true of the profile of food processing business in the Golden Horseshoe. Statistics Canada data confirms that in 2006 there were nearly 1,500 individual establishments in the study region. These firms range from large multi-national enterprises that operate significant plants in the study region (many of which also have their Canadian corporate head offices in the study region), to small-to-medium sized enterprises that are indigenous to Ontario. Most of the small-to-medium sized enterprises are privately controlled Canadian corporations – their financial information is not in the public domain. Although most of the Multi-national enterprises are publicly traded firms, their global corporate financial statements do not provide sufficient segmentation detail to allow any specific conclusions to be drawn about the size of their operations in the study region. For reasons of confidentiality, Statistics Canada cannot release certain sector-specific data for the food and beverage processing industry in the study region.

Figure 3.1—Food Processing Input Composition and Output Disposition , 2005



Source: Statistics Canada Input/Output Model and AAFC calculations.
Note: Does not add up to 100% due to missing confidential data.

In addition to a wide range of size of firms, as illustrated in **Figure 3.1**, the types of food and beverage processing business are also extremely diverse. In the North American Industry Classification System (NAICS) used by Statistics Canada, the sector is comprised of ten sub sectors including animal food, dairy, meat, beverages, other food, sugar and confectionery, bakery and tortilla, fruit and vegetable and specialty food, seafood, and grain milling and oilseed crushing. Each of these subsectors has different operational requirements and practices.

Comparing the food and beverage processing industry to the auto industry which has a number of auto assembly plants in Ontario communities such as Alliston (Honda), Woodstock (Toyota), Ingersoll (GM), Brampton (Chrysler), Oakville (Ford) and Oshawa (GM) illustrates how the food processing sector is different. While the specific models and consumer segments for which auto plants produce vehicles may vary, there is much similarity in the end product, the scale of operations, and in the processes by which vehicles are assembled, distributed and marketed. This commonality is not true for the food and beverage processing industry. The process, scale of operations, end product and market vary considerably for all of the sub sectors and for different products within the subsectors. For example, the pork processing sector has different challenges than chicken processing – among other considerations, the production of chicken is regulated by the supply management system whereas pork is an openly traded commodity. Meat and poultry processing collectively have different challenges than bakery in terms of their supply lines, food safety risks and competition. Thus, it is not possible to speak of the food and

beverage processing sector as if it were a homogenous entity. Not only do the fortunes of each subsector tend to be independent of one another, even firms within the same subsector may have different outlooks, depending on the strength of their management, level of debt, proprietary assets such as brands or processes that are trade secrets and other competitive factors. Therefore, in developing strategies for the food and beverage industry in the food and farming cluster, there is no "one size fits all" solution.

3.1.2 Geographic Distribution

To gain an understanding of the size and location of food and beverage processing businesses in the Golden Horseshoe, a number of sources were used to assess geographic distribution. These sources included economic development inventories in the various regions[3], public health inventories based on inspections completed and Scott's Industrial Guide. Using the NAICS codes for the food and beverage processing sector, the locations of identified businesses were mapped. While it is acknowledged that these sources do not provide a complete inventory of businesses, they give a good indication of the geographic distribution of food and beverage processing business in the Golden Horseshoe. The results of this exercise are shown on **Figure 3.1** [4].

Figure 3.1 confirms the clustering of these activities in the Cities of Hamilton, Mississauga and Toronto. The distribution pattern of the businesses correlates to the transportation infrastructure with clustering along major transportation links such as Highway 401 and Pearson Airport. Even with the lack of data for Halton which may have led to food and beverage businesses there to be underrepresented, the focus to the west and south side of the Golden Horseshoe is apparent. Proximity to the United States border is often cited as an incentive for locating in the western part of the Golden Horseshoe.

As the food processing sector in a region evolves, the distribution of firms changes. These changes in distribution are often linked to size. Expanding firms tend to move to larger and more economic sites; small firms tend to stay put. This trend has particular significance for the City of Toronto where in 2002, "fully two thirds of its food processing firms had annual sales of less than $5 million and a market almost exclusively focused within the City"[5].

In 2004, the City of Toronto released a report confirming that the food processing sector was thriving but identifying the trend associated with expansion as a concern.

> *The food processing sector in Toronto is thriving but faces some challenges in maintaining this growth. The smaller firms (less than $5 million in annual sales) must remain in Toronto due to the location of their market and the often "fresh" or specialty nature of their product. Such small firms cannot readily find suitable existing facilities for expansion. Financing such expansions is often prohibitively expensive and available land is a scare commodity in the City. While these challenges will not cause firms to fail, their growth may be curtailed and the opportunity*

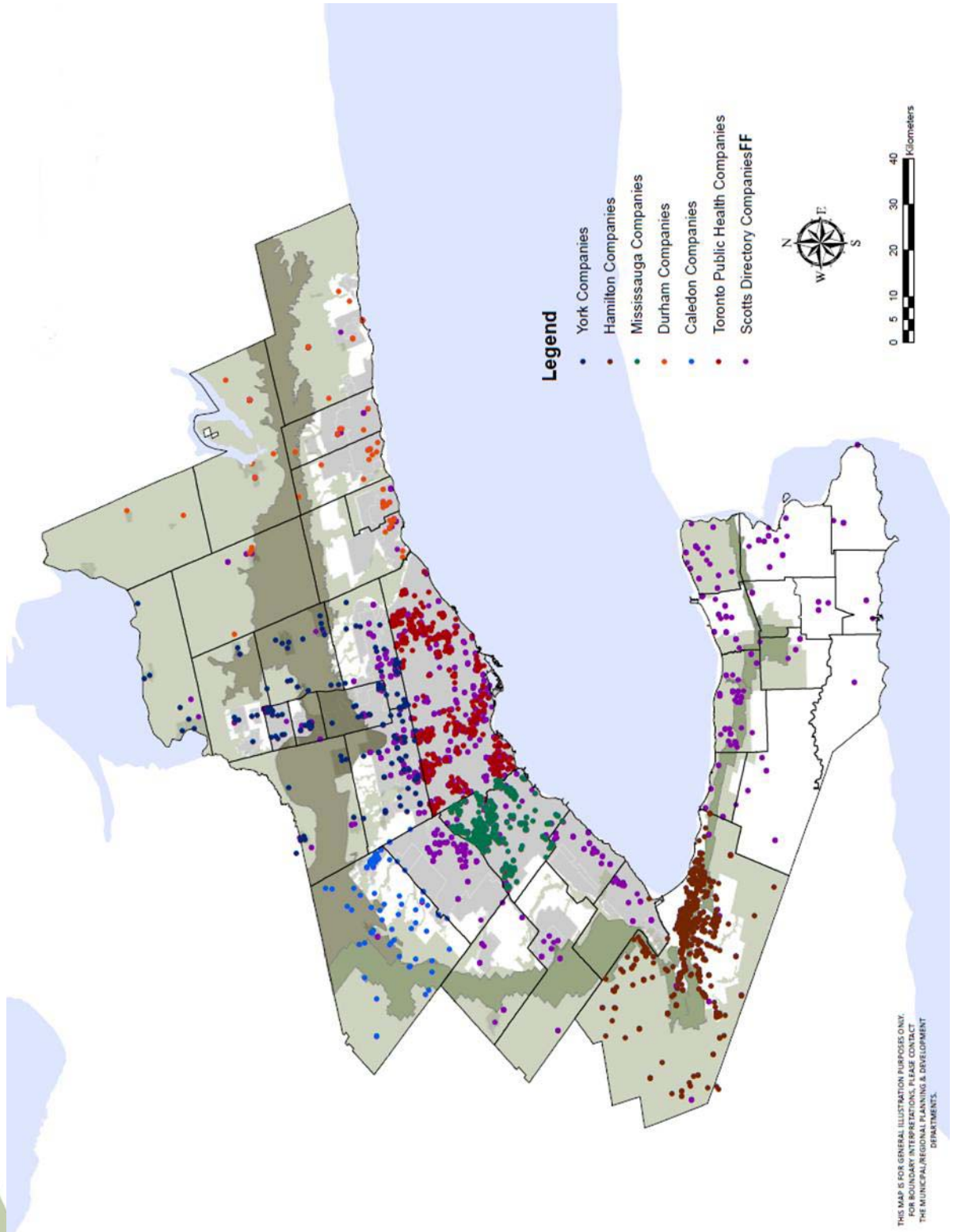


Figure 3.2—Golden Horseshoe Agri-Food Cluster

lost that would enable them to grow to serve markets beyond the City boundary with the attendant employment and cluster benefits.

Many larger firms will attempt to expand on site rather than face the costly and disruptive process of relocation However, when all such on-site expansion possibilities are exhausted, they will look for alternative sites and facilities. At that time, the allure of the perceived "cheaper "jurisdictions that surround the City will make itself felt.[6]

This competition for businesses within the study region is an issue that can be resolved if regions work together to attract and manage appropriate businesses in suitable locations.

3.1.3 Critical Mass

The food and beverage processing industry is composed of a complex spectrum of firms with different ownership structures and business strategies operating across a wide range of sectors. There is no simple or easy way to characterize the industry. This diversity of the industry is also in many respects its strength. Unlike the auto sector, where the failure or withdrawal of one major manufacturer could have near catastrophic consequences on the local economy, there is no single dominant player in the food and beverage processing sector in the study region. The sheer number of firms and the different sectors in which they compete means that it is a resilient industry. At the same time, there is mutual interdependence among firms and their collective presence creates "critical mass" for certain key inputs. For example, a factory that converts tin plate into cans for use by the food and beverage industry requires a certain minimum number of cans each year in order to justify its continuing operation. Having several companies that require tin cans as one of their packaging containers benefits all of them. It makes it possible for smaller firms, whose individual purchase volumes would be insufficient to justify a can conversion plant in the region, to have access to a competitive source of cans. Because cans are high in bulk relative to their value, the cost of shipping them any distance increases their total delivered price and therefore makes local supply advantageous. The manufacturing of a particular container, such as tin cans, is an example of the interdependence of the food and beverage processing sector and the need for a minimum "critical mass" for the sector to thrive.

3.1.4 Multi-National Enterprises

Although specific data is not available, over the past twenty years since the original Canada-United States free trade agreement was implemented, a number of multi-national enterprises have closed their food and beverage processing plants in the study region. General Mills Canada Corporation (Brampton cereal plant), ConAgra Foods (Niagara Falls canned goods plant - 2005) and Gerber Canada (Niagara Falls baby food plant - 1991) are among the companies that consolidated their operations into larger US plants over this twenty year period. On the other hand, multi-national enterprises like Campbell Company of Canada made major investments in the past decade to increase the range of manufacturing done in their west Toronto plant.

Publicly-traded consumer-branded food companies like Pepsi, Campbell's, Kraft and Nestlé are constantly scrutinized by analysts for their financial performance. This kind of intense investor scrutiny, in turn, has led to company management constantly assessing the performance of its manufacturing facilities to optimize the costs of supplying the market. Costs that are assessed include not only the net manufacturing cost at the point of production but also the cost of warehousing and shipping. With increases in line speeds made possible by technological advances, there are cases where it has been possible to swallow up an Ontario plant's volume in a US plant in a nearby state without any significant incremental investment. There is an immediate savings to the company by undertaking such rationalization: all the fixed overheads associated with operating the branch plant in Ontario are saved once the one-time restructuring costs are incurred. While not immune from further rationalization, most of the multi-national enterprise plants remaining in the study region have survived twenty years of this intense scrutiny and likely have significant advantages that have justified their continuing existence. For example, many multi-national enterprises have followed the pattern set by the auto industry in the 1960s, in which Ontario plants were given mandates to produce products for eastern North America rather than all of the SKUs sold in Canada. They have also taken advantage of their expertise in flexible manufacturing (short runs, quick changeovers) to specialize in products that benefit from that knowhow.

Multi-national enterprises have also adopted policies in which they focus on their core strengths: they no longer try to manufacture everything which they sell. Many multi-national enterprises contract with specialized small-to-medium sized enterprises to provide specific stock-keeping units (SKU's) that they require for their branded programs which they choose not to self-manufacture. Thus, many multi-national enterprises and small-to-medium sized enterprises have "symbiotic relationships," in which the multi-national enterprise's brand is used to market products made by selected small-to-medium sized enterprises. These relationships also entail significant risk for the small-to-medium sized enterprises if the multi-national enterprise decides to scale back or end the supply contract or if the multi-national enterprise's brand suffers setbacks in the market. In certain cases, where the small-to-medium sized enterprise becomes a core part of the multi-national enterprise's brand strategy, the multi-national enterprise may acquire the small-to-medium sized enterprise out-

right to protect its sources of supply. That outcome is likely the major way in which multi-national enterprise investment in new facilities will occur in the study region during the term of the strategy: through acquisition of well-managed small-to-medium sized enterprises. Miss Vickie's Potato Chips is an example of an Ontario-based small-to-medium sized enterprise that was founded in 1985 and acquired by Pepsi (Hostess Frito-Lay division) in 1993. It is also a rare example of a small-to-medium sized enterprise that had a successful emerging regional brand which the acquiring multi-national enterprise was able to parley into a major success story internationally by investing in and developing the brand.

The multi-national enterprises are an important part of the total food and beverage processing sector and in some categories, their brands are totally dominant. Thus, the Golden Horseshoe strategy must recognize their importance and seek to ensure that they invest in and expand their operations in the study region, both those that they own and operate and the relationships by which they contract with small-to-medium sized enterprises within the study region.

3.1.5 Small / Medium Enterprises

The small-to-medium sized enterprises are also important to the future of the food and beverage processing sector. They are able to innovate and respond rapidly to changes in the market. Because most of the dominant brand assets are owned by multi-national enterprises or grocery retailers (private label brands), small-to-medium sized enterprises need strong relationships with brand-owners in order to grow and thrive.

Small-to-medium sized enterprises are also often challenged with management issues as they grow: informal management styles that work well with ten employees may be ineffective at fifty employees. They may also have market access challenges getting their innovations into distribution given that there are significant scale-related barriers to entry: the grocery retailers may like their product innovation but they simply cannot supply enough product to enable a relationship to be developed. Although it may be contrary to the entrepreneurial independence by which they are characterized, small-to-medium enterprises may benefit by closer collaboration, both with firms within the study region and alliances with firms beyond its borders, in order to have the scale necessary to supply the needs of large grocery retailers on a national or North American basis.

3.1.6 Collaboration and Partnerships

In the study area, food and beverage processing firms of all sizes have limited horizontal coordination among themselves. For example, there are few effective and well supported trade associations to which small-to-medium enterprises belong. On the other hand, they tend to have stronger linkages vertically, both upstream to key input suppliers and downstream to major customers in grocery retail and food service. Broadly speaking, there are those supply chains which are heavily commoditized – that is, they centre around commodities for which the primary criterion is buying at the least cost and which are characterized by a drive to the lowest cost processor. The other side of the coin is supply chains that are true value chains in which there is a relationship between the trading partners to move away from strictly trading commodities and delivering value through product attributes. Both of these business models have a place and they will continue to co-exist. The opportunity lies in developing more relationships, especially between the farmers in the study region and the processors that are true value chains in which there is a measure of loyalty in the relationship. There appears to be a need for expanding this kind of business model. But it is particularly difficult in the current economic stagnation in which a sizeable segment of consumers is price-driven in their purchase decisions. Within the food and farming industry there is potential for Regions to work together to encourage more value chains to develop and to support innovation. One municipality may act in the role of incubator for food and beverage processing businesses and when the businesses grow, it may be another region that is best able to support further growth beyond the incubation phase.

To maximize results, economic development officers need to work as a team both laterally on a geographic basis and between different levels of government, with common objectives and information sharing.

3.1.7 Exchange Rates

The exchange rate brings two issues: the relative level and the speed of change. The Canadian dollar has moved from a range in the low sixty-cents in the early part of the last decade to parity at the beginning of 2011. A high value Canadian dollar vis-à-vis the US dollar is not universally negative. It depends on what commodities the firm uses and to what extent it is dependent on exports. Most global commodities (sugar, meat, fruits and vegetables, etc.) are, by convention, quoted in US dollars. Thus, as the Canadian dollar moved towards parity, the cost of many ingredients became cheaper in Canadian dollars. Similarly, much of the technology and equipment used by the food and beverage processing industry is sourced from Europe, the US and Asia, and therefore the delivered price is tied to the relevant rate of exchange. The cost of this equipment, in relative terms, has become cheaper over the past few years. At the same time, the costs of imported finished products from the US have also become cheaper.

The movement in exchange rate has meant that all costs that are set strictly in Canadian dollars – such things as labour and municipal taxes being major ones – have risen relative to what firms in the US have paid. On the other hand, the stability of premiums paid for the Canadian health care system (the main one being the Ontario Employer Health Tax) may have helped to offset the impact of relative labour cost increases: US firms have had much more direct cost exposure to escalating health care costs.

The degree of volatility in the exchange rate increases the risk, especially to firms that are heavily export dependent or which are required (in the case of multi-national enterprises) to set budgets in US dollars. Thus, a stable exchange rate is advantageous to the food and beverage processing sector. Volatility makes it more attractive for firms that serve primarily the Canadian domestic market to be located in Canada and less attractive for firms that serve the US export market, since it adds another dimension of risk to all decision-making.

3.1.8 Trade Issues

There is a system in place in both the US and Canada by which aggrieved parties in either country can petition for the imposition of duty on imported product when they are able to prove that dumping has occurred. Dumping can arise either when goods are sold in the foreign country lower than the cost of production in the domestic country or when they are sold in the foreign country for lower prices than they are sold for in the domestic country. One major dumping case was brought by US interests against Canadian greenhouse tomato growers in the early part of the last decade. The case was eventually resolved without the permanent imposition of tariffs, but it was costly to defend and disruptive while in

process. In 2010, Canadian greenhouse pepper growers successfully proved dumping by Dutch greenhouse pepper growers in the Canadian market. The system can also be used by Canadian interests to defend the domestic market. The cost of mounting a challenge is high, the outcome uncertain, and the evidence often difficult to compile, especially if the importer is in a developing or emerging economy.

In addition to the dumping challenges brought against Canadian exporters by US interests, there are non-tariff barriers that have been used to close the border. The most dramatic example over the past twenty years was the decision by the US government to close the border to Canadian beef in May, 2003, due to the discovery of a few cattle in Canada that had BSE. Other countries to which Canada exported beef followed suit. The second and third largest beef packing plants in Ontario are located in the study region and they were both impacted by this closure.

Although there are specific cases that highlight the risks of relying on an open border, in general there has been a thriving flow of food products across the border with the US since the original CUSTA was implemented.

Because Canada, Ontario and the study region are small players on the global scale in most segments of the food and beverage processing industry, there is significant risk that one of the large global players targets the Canadian market. China, for example, completely dominates global apple production and could easily price apples in the Ontario market at levels that would make it very difficult for domestic producers to compete. Once the apple orchards are gone, predatory pricing practices could end, and with no domestic competition left, prices could revert to significantly higher levels.

3.1.9 Value Added Growth

In the food and beverage processing sector industry, it is customary to refer to the first stage in the processing segment of the value chain, after the product has left the farmgate, as the “Primary Processor.” In the case of meat and poultry, the “primary processor” is the firm that receives and slaughters the live animals. “Further Processors” are those that buy parts of the meat and poultry commodity from the “primary processor” and make a range of products such as convenience meal solutions with cooked meat or poultry. Over the past twenty years, the growth has occurred in the “Further Processor” segment of the value chain, as consumers want to spend less time preparing food themselves and seek convenient meal solutions. The “Primary Processors” have largely been relegated to low cost converters of commodities except to the extent that they themselves have vertically inte-

grated downstream into "Further Processing." Many of the most successful primary processors are those that have invested in further processing, by which they are able to add value and be differentiated from commodity sellers.

3.1.10 Seasonal Food Processing

A generation ago, Ontario had a much larger complement of seasonal food processors in the fruit and vegetable sector. Crops were canned or frozen at the time of harvest, warehoused, and sold to consumers throughout the winter and spring until the fresh product was locally available the following season. One by one, many of the seasonal processing facilities owned by multi-national enterprises in the study region have closed. The two most recent are Cadbury Beverages in St. Catharines (processing Concord juice grapes) and CanGro in St. Davids (processing clingstone peaches and pears). Although they are on the periphery of, and not in the study region, the Bick's pickle plant in Dunnville and pickling cucumber tank farm in Delhi, owned by Smuckers, are scheduled to close in 2011.

Seasonal food processing businesses that are owned by multi-national enterprises do not fare well when they are scrutinized for their financial performance. They have a high level of inventory and therefore investment in working capital relative to the assets deployed in the business, leading to low "return on assets" indices. Seasonal processing businesses may survive if they have small to medium-sized ownership: the tart cherry processors in the study region are examples.

In addition to financial performance pressures, many of the traditional canned and frozen products must now compete with high quality, affordable fresh product that is available year-round as global supply lines have developed. The tart cherry sector does not have to compete with fresh product since tart cherries are not eaten fresh, a fact that partly explains why it has survived in the study region. Tart cherry producers and processors (there is vertical integration) have also linked up with Cherrco, a federated cooperative based in Michigan. Michigan is one of the world's largest tart cherry producers; Cherrco has provided a vehicle to work cooperatively on pricing and marketing. This approach to tying into international marketing arrangements may be essential for survival in other agri-food sectors within the study region.

3.1.12 A Global Model

The vertically integrated company that owns its own farms and controls its own supply chain up to the point of delivery to the grocery distributor, is less common now than twenty years ago. Many of the multi-national enterprises, for example, have sold the farms they once owned and exited from primary processing so that they could focus on their "core business" of adding value to food close to the consumer.

While the food and beverage processing industry in the Golden Horseshoe has enjoyed a track record of success and growth, numerous challenges lie ahead if a prosperous industry is to be sustained. Perhaps the most significant challenge involves finding a strategic position in the globalization of food. Increasingly, products are no longer only sold to end buyers abroad. Instead, they are being imported and exported to and from regions for value-added processing. Within a global model, companies seek to improve innovation and production efficiencies and companies from one country invest in the production capabilities of another to build global value chains and foster what is known as integrative trade. The processing cluster in the Golden Horseshoe has numerous key supporting industries such as packaging firms that have advanced technologies for developing and printing attractive graphics. The food processing sector must build and maintain strengths such as this to integrate and prosper in the global food industry.

One of the factors that will determine the future of the food and beverage processing sector has to do with the structure and market of the firms. The vast majority of firms are indigenous to Ontario: they have no operations elsewhere. As these firms grow, they have to make a decision whether to expand their existing operations here or open a second operation. Many American states have aggressive programs to attract firms to open operations in the US and offer a variety of incentives to do so. There is and will continue to be intense inter-jurisdictional rivalry to attract investment, especially new greenfield investments.

In making site selection decisions, firms in the food and beverage sector look to a number of factors, all of which are tied to their analysis of the return they will earn relative to the risk. Businesses invest in order to make money. The more stability and certainty in the investment environment, the less is the perception of risk. Therefore, government policies that are perceived as business-friendly and stable will enhance investment decisions. The relative weighting attached to each specific factor will vary from firm to firm depending on the subsector in which it operates. Factors that are key to site selection decisions include:

- Cost (both acquisition cost and ongoing taxes) and availability of serviced land
- Cost of building construction and any specific regulatory restrictions
- Transportation networks for incoming materials and outbound shipments and access of people to the facility
- Proximity to market and the ability to service customers

- Proximity to essential materials and the ability to be serviced by suppliers
- Access to a skilled and reliable labour force at competitive rates
- Attitude and support provided by governments including tax rates and other government imposed costs of doing business (regulations)
- Access to and cost of utilities
- Being perceived as “open for business”.

Strategies to promote the sector need to address these factors.

3.2 Food Distribution

The food distribution component of the agricultural sector, which includes wholesale, retail and food service (restaurants and drinking places) is the largest component of the food and farming sector in terms of employment. In fact, as illustrated on **Figure 3.3** employment in the restaurant sector is more than double the employment in any other areas. Employment in the restaurant component of food service is also the only sector experiencing a significant and steady increase.

Figure 3.3– NAICS Codes for Selected Agri-Food Industries

NAICS Code	Selected Agri-Food Industries	2004	2005	2006	2007	2008
111-112, 115	Agriculture	78,900	93,100	100,400	96,100	84,500
311	Food Manufacturing	85,637	85,134	85,873	84,719	84,051
312	Beverage and Tobacco Product Manufacturing	13,163	12,071	12,476	11,587	11,321
4111	Farm Product Wholesaler-Distributors	4,181	3,835	3,715	3,668	3,716
4183	Agricultural Supplies Wholesaler-Distributors	4,423	4,266	4,221	4,543	4,629
413	Food, Beverage and Tobacco Wholesaler-Distributors	35,436	35,845	33,579	34,671	34,991
445	Food and Beverage Stores	158,380	162,855	159,467	156,527	170,716
722	Food Services and Drinking Places	287,169	285,722	295,182	309,299	324,098

Source: Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours

With respect to food service, national trends in the sector reflect a preference for service. In 2008, over one third of all sales in commercial foodservice businesses occurred at full service restaurants.[8]

In 2008, there were twice as many independently owned restaurants in Canada as there were chain restaurants and bankruptcies were showing a steady decline. Ontario led the country in the increase in commercial food sales and was home to 40% of Canadian food service establishments.[9]

Figure 3.4– Market Share by Foodservice Category 2008

Chart C2.9
Market Share by Foodservice Category
2008

2008 PRELIMINARY	(MILLION $)	PERCENT
Commercial Foodservice	47,458	80
Full-Service Restaurants	21,632	36
Limited-Service Restaurants	19,604	33
Contract and Social Caterers	3,839	6
Pubs, Taverns and Nightclubs	2,383	4
Total Non-Commercial Foodservice	12,222	20
Accommodation Foodservice	5,597	9
Institutional Foodservice	3,243	5
Retail Foodservice	1,164	2
Other Foodservice	2,218	4
Total Foodservice	59,680	100

Source: Canadian Restaurant and Foodservices Association and AAFC calculations.
Note: 2008 figures are preliminary.

The trends in food service point to the importance of creating a strong value chain. Enhancing the linkage of farmers and processors to the food service industry will strength the cluster as a whole and address rising consumer concern about where their food comes from. In a study recently conducted for the Vancouver Food Policy Council shifts in food distribution trends were noted.

> *The food distribution system is also changing as its capacity to respond to the diverse economic, social, cultural and environmental needs of the community are being questioned. Consumers and the larger community are becoming concerned about where their food is produced the environmental costs of food production and transportation, and the long term sustainability of the food supply system (…).*[10]

With respect to retail, a number of trends have shaped the food and beverage processing industry in Ontario over the past twenty years. Acquisitions have led to four national grocery retailer chains competing for market share in the study region: Loblaws, Metro (operations concentrated in Quebec and Ontario), Sobey's and WalMart. (The first three operate under a number of different banners). In the Big Box category, Costco is the major competition and carries a considerable number of food and beverage SKUs.

There are also important independent grocery retail businesses in the study region. Longo's is one of the largest regional chains in the study region. Whole Foods Market is an example of a US-based specialty retailer that has established retail stores in the region. These firms are an important part of the grocery retail landscape.

Convenience stores, including new format drug stores, also sell food and beverages. What the national chains have in common is that they are moving towards more national buying mandates: one central office buys their needs for all of Canada. This expansion of national procurement has meant that in order for firms to be able to supply the volumes required for features on a national scale, they have to be able to supply substantial quantities or have alliances with other firms that enable them together to have both the scale of supply capacity and geographical scope necessary to be retained as key suppliers. Fostering the opportunity for firms to form alliances both within and outside of the study region in order to serve the customers' increasingly demanding requirements will be important to the strategy. These alliances might involve outright ownership in the form of mergers and acquisitions or they might involve formalized partnering arrangements.

At the same time as there has been consolidation, the grocery retailers' own private label brands have come to hold significant market share in a number of categories. Since Multi National Enterprises have invested heavily in their own brands, they tend not to be interested in supplying the private label brands of the major grocery retailers. This need created a major opportunity for small-to-medium sized enterprises to become the suppliers of the grocery retailers' private label brands. The cost for a small-to-medium sized enterprise to launch its own brand, which would initially have only a regional identity, is usually prohibitively high. Being able to grow by association with a private label brand of a grocery retailer has enabled a number of firms to use the relationships which they have forged with particular grocery retailers to significantly expand their business.

The relatively few number of customers for the 1,500 firms with operations in the study region increases their business risk: they depend on the relationship with one or two key accounts. For example, when Metro acquired A&P's stores in Ontario, a number of Ontario private label suppliers to A&P were dropped by Metro, which already had its own private label supply base. The US grocery retailing sector is not as consolidated as Canada's and therefore the risks of being a supplier to a very limited number of customers are not as acute in the US are they are in Canada. One of the ways of mitigating the risk of being dropped as a private label supplier in favour of a competitor is to have a product that is highly unique, and, if possible, one where the packaging technology and/or product formulation is proprietary to the food and beverage processor. In order to compete with one another, the grocery retailers are constantly looking for unique products to which they can have exclusive access, which give them positive differentiation from their competitors. Basic private label products that are perceived as commodities, for which there is intense retail price competition among the major chains, will be purchased generally from the lowest cost supplier. It is not unusual for the major buyers to tender that kind of business at regular intervals: there is little loyalty to the suppliers. These observations apply also to fresh fruit and vegetables. A unique variety of apple, for example, has more value to a grocery retailer, especially if they can lock up an exclusive arrangement with the growers for a period of years, than McIntosh.

Because Loblaws was one of the North American leaders in upscale, unique products with its acclaimed President's Choice brand, Ontario small-to-medium sized enterprises developed significant sophistication in being able to supply the kind of products which Loblaws needed. Many of these small-to-medium sized enterprises were able to take that expertise and use it to supply chains in the US and develop private label export business, especially when the Canadian dollar was more favourable relative to the value of the US dollar.

Although there has been significant consolidation in the grocery retailing and food service sectors, there is still intense competition for market share and price is still one of the important criteria that consumers weigh in choosing where to shop. Thus, there will continue to be relentless pressure on food and beverage processors in Ontario to offer the lowest cost solution. This reality, in turn, forces the processors to look for every opportunity to reduce costs. Casualties of an intense low-cost production environment include such expenditures as worker skills training and research and development. Both of these kinds of investments have longer term paybacks and are easily deferred or cut altogether when margins are being squeezed. But in the long term, their neglect will lead to a less competitive sector with less innovation.

Although food processing is well established in the Golden Horseshoe, it faces immense challenges, in particular with respect to competing on a global scale and under constantly changing economic conditions. The last stage of the value chain, food retail, has undergone extensive consolidation in recent years but is challenged to provide a wide range of quality products to consumers, year round, at the lowest possible price. This places a great deal of pressure not only on retail but the entire value chain, including primary production and food processing. A strategy for food supply in the Golden Horseshoe requires a thorough understanding of the farming and food value chain and a careful balancing of competing interests to ensure the industry remains prosperous.

The other component of the food distribution sector, warehousing and distribution has its own set of challenges. For small scale producers, a major issue is access to warehouse and distribution services. Although it is easy to suggest that the best way to improve the value chain is to strengthen the links between production and distribution, this approach requires a sophisticated warehousing and distribution network to support the links. While this outcome may be readily achievable for large scale operations that can support their own system, for small producers dealing with small retailers or food service providers it is a major challenge.

In a study of the potential to establish a local food distribution system in Niagara and Hamilton the barriers to achieving this in Ontario generally were identified as:

1. *Finance – Accessing the funds necessary to expand or establish a LFDI is often difficult and time consuming for commercial organizations, resulting in lost opportunities.*
    - *One of the reasons why it is difficult to secure funding is because local food initiatives are relatively new and as such lack the business information and history necessary to secure loans from traditional sources (i.e. banks).*
2. *Lack of infrastructure – The increasing erosion of local infrastructure is a major concern. The closure of processors and the consolidation of the retail sector left many gaps, making the local food chain tenuous.*
3. *Barriers to entry include - high set up costs, current mindsets, and a declining distribution network.*
4. *Legislation and Bureaucracy – Canadian and Ontario regulations are considered impractical and have a disproportionately high impact on small businesses in the local food and beverage sector. These include:*
    - *planning applications being overly complicated and time consuming,*
    - *suppliers are prevented from securing an array of potentially lucrative markets by supply management as well as federal vs. provincial inspection,*
    - *LCBO and a few large wineries holding what is essentially a monopolistic influence over much of the Ontario wine market.*
5. *Lack of public support/awareness - It was suggested that the public doesn't understand the 'real' cost of food because supermarkets have kept prices artificially low through the use of cheap imports and the occasional use of predatory pricing strategies.*
6. *Difficult to enter supply chains serving large retailers - Supply to multiple retailers can cause significant difficulties for the small producers of local foods, particularly as a component of an own-brand.*
7. *Advice and training – A lack of an appropriate 'one stop shop' where producers could access best practice ideas and relevant advice. Not only a lack of accessible training, but more importantly businesses felt that they could not always spare the time or cost.*
8. *Few suppliers understand the processes and requirements associated with supplying multiples (i.e. labeling, trading standards, health and safety, delivery, supply, and invoicing).*
9. *Small producers tend to be entrepreneurial and product-focused. They often lack the business skills needed for planning, marketing communications and product development.*[11]

3.3 Plans for Change

Despite its diversity, over the past decade the food sector has been working together to address problems and strengthen businesses. Although there may be disconnects and issues, governments are beginning to acknowledge the potential of the sector and direct resources to supporting it. A scan of the plans put forward by the sector[12] and the government and interviews with economic development officers and industry representatives[13] confirms that there are a number of common themes that exist regarding appropriate actions. These are summarized below.

At a meeting held with the economic development team of OMAFRA and economic development offices from the Golden Horseshoe[14] the following observations were recorded.

- *Primary processors (that is, those that receive inputs directly from farmers such as live animals for slaughter or vegetables for processing) are at the highest risk of being lost.*
- *Valuable agricultural land in the Golden Horseshoe (GH) has been lost to development.*
- *Zoning regulations have frustrated efforts to attract new food processors.*
- *There has been a decline in market infrastructure that serves as magnets in the Golden Horseshoe such as the closure of the Ontario Public Stockyards in the traditional St. Clair W. meat packing district of Toronto (perception that Chicago has retained more market infrastructure and has status as a centre as a result).*
- *Access to municipal water delivery has restricted dairy production in the region.*
- *Processors have difficulty sourcing key inputs which they require such as organic apple pulp; hog production has declined in Ontario over the past four years.*

Cost issues

1. *Processors are caught in the middle between rising commodity prices (and other inputs like energy), on the one hand, and dominant retailers who demand reductions in pricing.*
2. *Logistics are playing a much larger role in location decisions; in certain cases Chinese producers can land products in the prairies cheaper than it can be shipped from Golden Horseshoe.*
3. *Land is a much more significant cost and tends to be higher in the GH as a result of the Greenbelt limiting the amount of land available.*
4. *More multi-modal facilities are needed (Ontario lags Illinois; CSX building series of intermodal terminals across US).*
5. *Processors need scale in order to compete; the domestic Ontario market is too small to provide sufficient economies of scale; must look beyond Ontario for growth.*
6. *More attention needs to be paid to the changing demographics (for example, the proportion of Muslim consumers and their need for halal product).*
7. *A large part of the traffic congestion on the 400 series highways corridor (reported to be among the worst in North America) comes from through traffic originating in the US and moving east to Montreal, originating outside the region; using the region's infrastructure; but not providing any economic benefit to the region.*
8. *Opportunity for better alignment of surplus heat energy with users who need it; overall better energy integration is possible.*

9. *Workers need excellent integrated transit systems to get to their jobs and need operations at odd hours to support shifts.*
10. *There is a research disconnect between what firms need and the facilities available.*
11. *The health opportunity is real but how can it be more effectively implemented, i.e. how can the medical complex on University Avenue be better connected to food as key to human nutrition and healthfulness?*

Solutions/Recommendations

1. *Need for market intelligence on understanding what competitors are doing (other jurisdictions, for example).*
2. *Provide entitlement incentives for investment in technology and facilities, tied to raising productivity and contributing to sustainability; don't deliver through complex programs but from tax system where all qualifying projects receive the benefit; address needs of MNEs competing for intracompany investments as well in supporting their improving their rates of return.*
3. *Better align government resources dedicated to the food sector with the scale of the sector vis-à-vis other parts of the economy.*
4. *Rename OMAFRA the Ministry of Food; the Ministry of Food and Fibre; the Ministry of Food and Farming; the Ministry of Food, Fibre and Fuel [i.e. Biofuel] – point is to put **food** first.*
5. *Brand the GH region/cluster – give it an identity and positive brand recognition.*
6. *Diversify and build exports beyond the US – provide incentives, training, language skills and invest in the infrastructure to support volume movement of food cargoes; support more containerization.*

In a study prepared for the City of Toronto regarding development of an international food processing and innovation centre for the City of Toronto it was concluded that:

> *Recent studies have revealed that the food industry in the Toronto region is a $16 billion/year industry, employing over 30,000 people in multiple sub-sectors spread across the City. It has enjoyed steady growth of 4%-5%per year, and has more than tripled its exports to the United States in the last ten years. It is continually adapting to new trends and challenges, often led by the smaller entrepreneurial businesses, (< $5 million in annual revenue), that make up over half of the food business' annual revenue. However, a number of factors are now providing significant challenges to the industry. These include the following:*
>
> 1. *the rising value of the Canadian dollar is limiting export opportunities;*
> 2. *the emphasis on food safety and bio-terrorism regulations for the sector;*
> 3. *a lack of suitable food manufacturing space is hindering growth;*
> 4. *the aging workforce, and insufficient technical training makes growth and innovation more difficult;*
> 5. *the rising cost of energy and logistics is adding to manufacturing cost;*
> 6. *many of the SME's are experiencing difficulties in meeting world class standards;*
> 7. *inadequate post secondary training programs for careers in food manufacturing.*
>
> *These factors, along with numerous other strategic challenges outlined in this report, demonstrate that significant assistance will be needed if Toronto, Ontario and Canada wish to continue to benefit from a vibrant growing food industry.*

The opportunities in the food industry are numerous, and include increased growth and prosperity, increased employment, an increased tax base, an improved overall manufacturing image, and increased opportunities for college graduates to seek subsequent employment.[15]

In a report on the food industry outlook prepared for OMAFRA and the City of Toronto Economic Development Department, the areas of focus to support the food sector fell into four themes:

- Capital investment;
- Physical infrastructure;
- Food industry business infrastructure; and
- Communications.

With respect to each area the recommendations made are summarized below:

1 *Capital investment in the food industry*
   - a *Consider programs and/or facilitate contacts with the financial services sector to encourage capital investment in the food industry.*
   - b *Explore opportunities to develop better communications between the real estate and food industries with the purpose of maximizing the utilization of existing food grade facilities.*
   - c *Raise awareness about the facility needs of the food industry and encourage the availability of food-industry-friendly zoning as well as the preservation of industrial lands in the City of Toronto.*

2 *Physical infrastructure*
   - a *Ensure that measures are considered to facilitate goods transportation within the city to address the special needs of the food industry.*
   - b *Monitor/explore methods to minimize the costs of infrastructure to ensure a cost competitive environment for food and beverage processors within Toronto.*

3 *Food industry business infrastructure*

   - a *Work closely with the industry to raise awareness at higher levels of government that will encourage the development of programs to address food industry labour training gaps, such as the shortage of equipment technicians.*
   - b *Capitalize on co-packing opportunities by developing programs to assist smaller food entrepreneurs to grow their businesses.*
   - c *Encourage programs focusing on the resolution of common issues, on business-to-business opportunities, on strengthening small business networks as well as on public-private partnerships to strengthen the food cluster competitive advantage.*
   - d *Build on the innovative capacity of the Toronto food industry to create a business climate that attracts new investment.*

4 *Communications*

a *Improve co-ordination/communication among authorities having jurisdiction over food industry regulations on food safety and facility inspection to assist in the food industry's understanding of, and compliance with, pertinent regulations.*

b *Strengthen communications between government and the food industry through forums and/or other means to ensure a fluent working relationship and thereby encourage positive perceptions and permit issues to be aired.*

c *Develop a business model based communications tool comparing the 'value of doing business' in Toronto with surrounding regions. Use this as a marketing tool to promote the location advantages of Toronto in comparison to those neighbouring regions.*[16]

In the recently released strategic plan for the Guelph Agri- Innovation Centre, drivers for success were summarized as:

- *Need for flexibility (in both planning and managing development) and mixed use land development (including recreational, cultural and residential facilities);*
- *Access to training for knowledge workers;*
- *Availability of advanced infrastructure;*
- *Linkages with the region's universities' and federal/state labs R&D strengths;*
- *Central location with access to transportation systems; and*
- *Development of a critical mass of technology companies in different sectors.*[17]

The Alliance of Ontario Food Processors (AOFP) is aware of these issues and has been working with other organizations to address them. In 2005 the AOFP completed a study of workforce issues entitled ***'Workforce Ahead"*** which concluded:

> *Recruiting and retaining workers are already serious problems for many food processing firms in Ontario, especially within the Meat and Baking sub-sectors. Based on industry practices and demographic trends, worker shortages are likely to become problematic for most of the industry over the next 10 years.*
>
> *(1) Much of Ontario's food processing industry is not well positioned to compete for a shrinking pool of workers.*
>
> *(2) Achieving productivity improvements as an alternative to additional workforce hiring will be difficult for many food processing employers because of the types of workers being hired and lack of focus on worker development.*
>
> *(3) Although most food processing executives in Ontario recognize that population demo-*

graphics are changing and that workforce development could improve productivity, very few have identified either issue as a strategic priority that their company must urgently address. Several factors are responsible for the modest attention that is being paid to these two issues.

- The industry has to cope with relentless pressure on margins and is therefore preoccupied with managing costs day-to-day in order to remain in business. The pressure on margins is driven by a number of factors including customer consolidation, the rising value of the Canadian dollar vis-à-vis the US dollar, and the rising costs of energy, materials and distribution, all of which are difficult to pass on to customers in the current trading environment. Added to this picture are rising costs associated with increased attention to food safety, health, environment, bio-security issues, etc.

- Human resource functions within food processing firms are usually below the level of senior management and seldom integrated within the strategic planning process. For most of the industry, human resource planning tends to be highly reactive to immediate conditions and needs. In small and medium-sized firms, the human resource functions are often supplementary to the primary duties of the responsible personnel.

- Obtaining workers has not been a serious issue for most companies in the current economic environment. As a consequence, it is difficult for them to take planning for a looming crisis seriously when it has not shown up yet in a way that compromises the company's ability to carry on business. For those companies having difficulties, scrambling to maintain an adequate workforce has left little time to focus on the longer-term issues.

RECOMMENDATION #1

Individual employers and industry associations implement a strategy to strengthen their capacity to recruit and retain workers, including integrating human resource planning more closely with long-range strategic business planning.

RECOMMENDATION # 2

Employers embrace a strategy of continuous workforce development.

RECOMMENDATION # 3

The Alliance of Ontario Food Processors take the lead in organizing other industry representatives to create a new mechanism/institute to lead the development and delivery of a human resource strategy for Ontario's food processors.[18]

In 2008 the AOFP released a strategic plan to address issues in the sector. This strategy focused on six goals as follows:

> *Goal 1 To create more cooperative long-term relationships between processors and farmers aimed at maximizing the performance of the entire agri-food industry.*
>
> *Goal 2 To help the Ontario government fully understand the contributions of the food and beverage processing industry and to achieve a better balance between those contributions and the policy attention and commitment that it receives from governments.*
>
> *Goal 3 Increase access to retail and foodservice markets in Ontario and outside by improving the industry's ability to work with customers and better meet their needs.*
>
> *Goal 4 Create a regulatory environment that protects public safety but at the same time encourages innovation and supports Ontario's agri-food industry, a system that provides a level playing field for industry participants and minimizes the barriers to international and interprovincial trade.*
>
> *Goal 5 Revitalize Ontario's food and beverage processing innovation system. Increase investment in productivity, new product R&D and support for commercializing new ideas and new products. Create a system that is focused on innovation, customer value, environmental sustainability and future opportunities.*
>
> *Goal 6 To provide employers with the tools and to develop a workforce with the skills required to support the Ontario food and beverage processing sector.*[19]

This is just a sampling of major studies that have been conducted of, or strategies developed for, the food and beverage processing sector in Ontario. They confirm that there is a great deal of attention being paid to the sector in line with a growing appreciation for its importance. In creating a wider strategy to embrace the whole food and farming cluster in the Golden Horseshoe, consideration should be given to what has already been done so that it is not replicated and where resources that have been developed for Ontario as a whole can be leveraged for the benefit of the study region in particular. Selecting key actions that will support this sector and strengthen the cluster in the study region will form the basis for an effective strategy.

3.4 Summary and Conclusions

In reviewing the findings about the food component of the cluster, it is apparent that there are a number of key themes that emerge as issues.

Linkages are of prime importance. The strength of the cluster as a whole can only benefit from inter-connections and cooperation across the cluster. “Local first” should be a guiding principle that applies to all components of the cluster. At this time of growing public concern about where their food comes from, this focus is not only a practical business choice in reducing the risk and cost associated with long supply lines, it is also a strong marketing tool responding to consumer needs in the domestic market. Making sure that all participants within the cluster know how and where to link to other parts of the system and have the ability to do so, in short to foster a strong value chain, will enable the cluster to thrive.

Labour is a key issue in moving forward. An aging work force is a concern in the food component but also across the cluster. Training to increase the skill levels of existing workers while raising the profile of the cluster as a desirable career choice are imperative to raising productivity and attracting firms to the study region.

Complex regulatory regimes administered by a variety of agencies increase the cost of doing business. To compete on a global scale, the Golden Horseshoe must have a flexible regulatory regime that facilitates development and an investment climate that is stable and supportive of business.

The region should work together as one. Competing for business within the boundaries of the Golden Horseshoe is counterproductive.

Innovation is essential. The food and farming cluster in the study region cannot compete on the basis of lowest cost commodity food but it can be leader in safe healthy value-added products processed within a well regulated, progressive cluster.

Warehousing and distribution for all but the largest business is an expensive and complex problem made more difficult by the growing traffic congestion in the Golden Horseshoe. Solutions that improve linkages between food and farming businesses; with specific focus on linking small businesses and their markets are vital to improving the strength of the cluster.

The different components of the sector are working to address their specific problems. Numerous report s and plans have been prepared and are being implemented. However what is lacking is a higher level strategy that addresses key problems common to all components of the food and farming sector.

1 An Overview of the Canadian Agriculture and Agri-Food System 2009" Research and Analysis Directorate, Strategic Policy Branch, Agriculture and Agri-Food Canada

2 Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours 2008.

3 Information was available from all regions and cities except the Region of Halton.

4 The sources of data are noted on Figure – the data available for Halton Region was more limited then that available for other regions.

5 Toronto Economic Development, Toronto Labour Force readiness Plan, 2004, pg. 6.

6 WCM Consulting for the Ontario Ministry of Agriculture and Food and the City of Toronto Economic Development, Food Industry Outlook" 2002, pg 5

7 Statistics Canada, Labour Force Survey and Survey of Employment, Payrolls and Hours 2008.

8 Agriculture and Agri-Food Canada, An Overview of the Canadian Agriculture and Agri-Food System, 2009, pg. 80.

9 Agriculture and Agri Food Canada, An Overview of the Canadian Agriculture and Agri Food System, 2009. Pg 79.

10 Serecon Management Consulting Inc., and Zbeetnoff Agro-Environmental Consulting, Inc., Food Secure Vancouver Baseline Report, prepared for the Vancouver Food Policy Council, March, 2009 pg. i.

11 George Morris Centre, Feasibility Study for Establishing a Local Food Distribution Initiative in Niagara and Hamiltion, September 2009, pg 31.

12 Listed in the bibliography

13 For a list of interviews see Appendix ?

14 For a list of those present at the session see Appendix

15 Giffels Associates Ltd., International Food Processing and Innovation Centre, An Opportunity for Growth and Economic Development, January 2006, pg 1.

16 WCM Consulting for OMAFRA and the City of Toronto, Food Industry Outlook, A study of Food Industry Growth Trends in Toronto, 2002. Pg. 6 -7

17 Hickling, Arthurs and Low and Urban Strategies Inc., Strategic plan for the Guelph Agri- Innovation Cluster. March 2010, pg 75.

18 E-Conomics Consulting and Jayeff Partners,Workforce Ahead, A Labour Study of ontario's Food Processing Industry" April 2005, pgs 4-8.

19 Alliance of Food Processors of Ontario with the Association of Ontario Chicken Producers, Ontario Dairy Council, Ontario Food Processors Association, Ontario Independent Meat Processors and Wine Council of Ontario, A Strategy for Ontario's Food and Beverage Processing Industry, 2008.

Chapter 4 - Economic Analysis

To understand the full importance of agricultural production, it is necessary to consider all of the down-stream uses for agricultural outputs. As has been demonstrated, food processing is a very important industry in Ontario, the GTA and in the study region. The Greater Toronto Area (GTA) alone represents the second largest food processing area in North America behind Chicago (OFVGA, 2010).[1] When activities in the Region Niagara and the City of Hamilton are added in, the Golden Horseshoe(GH) may be the biggest cluster in North America.

A conservative definition of the "agriculture and agri-food cluster" in Canada as a whole that includes only primary production and all processing activities tied to this production (ignoring food services, wholesaling, retailing and distribution) yields a gross output value for the cluster that is very near that for the total of traditional manufacturing stalwarts including "Motor Vehicle Manufacturing", "Primary Metal Manufacturing", "Motor Vehicle Parts Manufacturing" and "Motor Vehicle Body and Trailer Manufacturing". While data for these detailed industrial categories at finer levels of geography are not available, it is reasonable to assume that the sum of primary production and all related processing activities at the regional scale (i.e., for the study area considered here), would be comparable to those industries that are typically consuming agricultural land in the study region.

In other words, there is an erroneous impression that agricultural uses are relatively less important than typical manufacturing or urban uses in terms of resulting socioeconomic benefits. In what follows, we develop and implement an economic impact analysis meant to illustrate the very sizable national economic impact associated with the cluster[2] in the study region and make the point that this cluster is as important economically as are the traditional manufacturing sectors that usually end up subsuming farm land. Indeed, when the intangible benefits outlined above are added in, this cluster is easily viewed as being more important (in socioeconomic terms) than are the non-agricultural uses.

4.1 Methodology

The process of measuring the economic impacts associated with these activities in the study region involved the following steps:

1. Define the cluster in terms of detailed industry, North American Industry Classification System (NAICS), codes;

2. Estimate the activity levels of these industries in the study region;

3. Develop an economic impact model capable of translating activity levels in the study region into economic impacts in the broader national economy; and,

4. Run estimated industry activity levels through the impact model to generate an estimate of the resulting direct, indirect and induced output Canada-wide; and,

5. Translate this information into employment and Gross Domestic Product (GDP) impacts across all industries Canada-wide.

In what follows, we report on the results obtained as a result of this process.

4.2 Defining the Cluster for the Purposes of the Economic Impact Analysis

As Figure 4.1 makes clear, the agriculture and agri-food cluster is a very complex entity involving industries from all facets of the economy. Figure 4.2 provides a definition of a "truncated cluster" used as the basis of the economic impact analysis presented below. This truncated cluster includes primary agricultural production as well as related processing activities. Linkages to the wholesale and retail ends of the continuum are not included in this analysis given the fact that a considerable portion of the demand for these activities originates beyond the agriculture and agri-food cluster. Our intention is to focus on the economic impacts associated with the production and processing of agricultural products in the study region .

Figure 4.1—Conceptual Framework

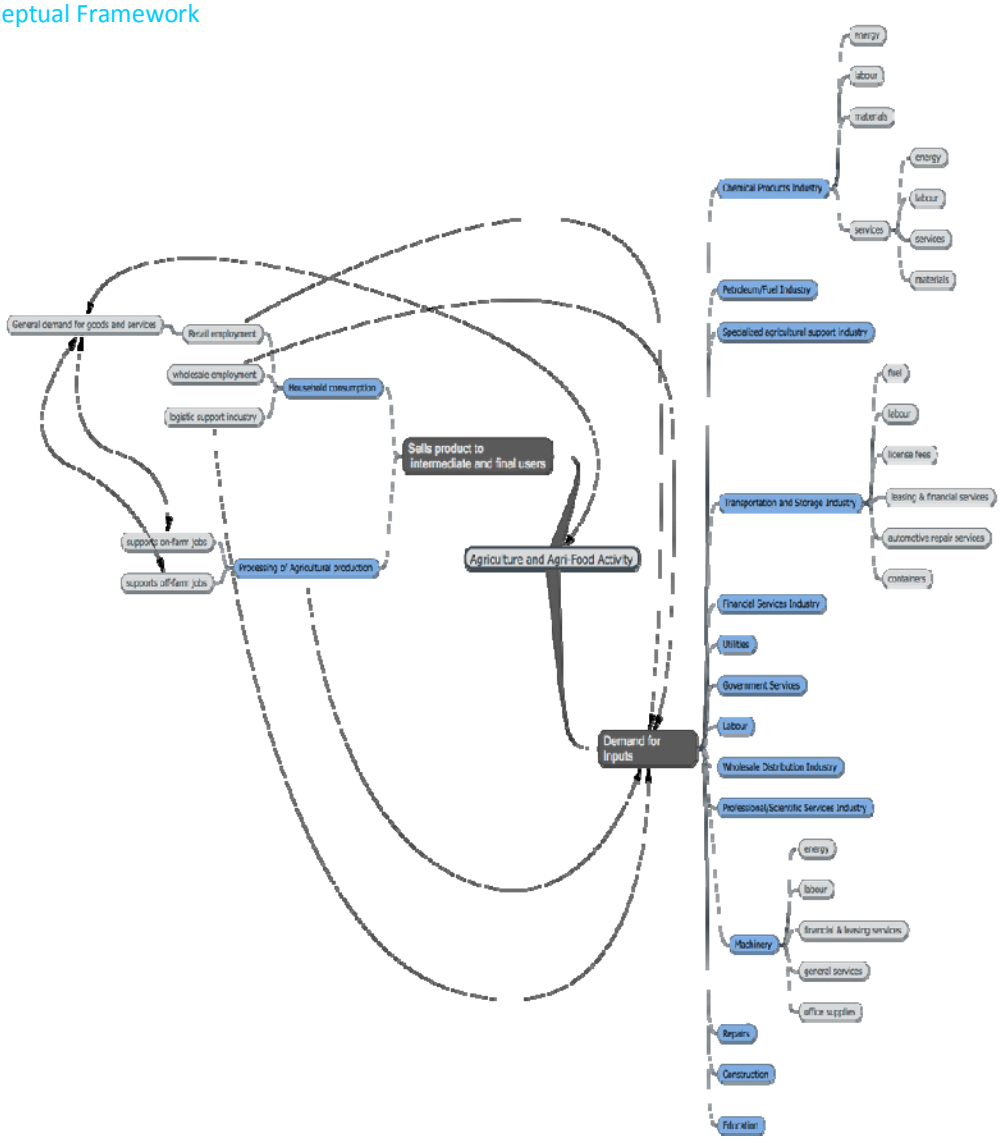


Figure 4.2 presents a listing of the industries, but NAICS code that were included in the agriculture and agri-food cluster in the study region. The table is included in its entirety so that it, along with **Figure 4.1** above, conveys a sense of the magnitude and complexity of this cluster.

Figure 4.2—The Primary Production and Processing Cluster

NAICS	Description
11	Agriculture, Forestry, Fishing and Hunting
111	Crop Production
1111	Grain and Oilseed Farming
11111	Soybean Farming
11112	Oilseed (except Soybean) Farming
11113	Dry Pea and Bean Farming
11114	Wheat Farming
11115	Corn Farming
11116	Rice Farming
11119	Other Grain Farming
1112	Vegetable and Melon Farming
11121	Vegetable and Melon Farming
111211	Potato Farming
111219	Other Vegetable (except potato) Farming
1113	Fruit and Tree Nut Farming
11133	Non-Citrus Fruit and Tree Nut Farming
1114	Greenhouse, Nursery and Floriculture Production
11141	Food Crops Grown Under Cover
111411	Mushroom Production
111419	Other Food Crops Grown Under Cover
11142	Nursery and Floriculture Production
111421	Nursery and Tree Production
111422	Floriculture Production
1119	Other Crop Farming
112	Animal Production
1121	Cattle Ranching and Farming
11211	Beef Cattle Ranching and Farming, including Feedlots
11212	Dairy Cattle and Milk Production
1122	Hog and Pig Farming
1123	Poultry and Egg Production
11231	Chicken Egg Production
11232	Broiler and Other Meat-Type Chicken Production
11233	Turkey Production
11234	Poultry Hatcheries
11239	Other Poultry Production
112391	Combination Poultry and Egg Production
112399	All Other Poultry Production
1124	Sheep and Goat Farming
11241	Sheep Farming
11242	Goat Farming
1125	Aquaculture
1129	Other Animal Production
11291	Apiculture
11292	Horse and Other Equine Production
11293	Fur-bearing Animal and Rabbit Production
11299	All Other Animal Production
1151	Support Activities for Crop Production
1152	Support Activities for Animal Production
31199	All Other Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
3121	Beverage Manufacturing
31211	Soft Drink and Ice Manufacturing
31212	Breweries
31213	Wineries
31214	Distilleries
3122	Tobacco Manufacturing
31221	Tobacco Stemming and Redrying
31222	Tobacco Product Manufacturing
313	Textile Mills
3131	Fibre, Yarn and Thread Mills

31	Manufacturing
311	Food Manufacturing
3111	Animal Food Manufacturing
31111	Animal Food Manufacturing
311111	Dog and Cat Food Manufacturing
311119	Other Animal Food Manufacturing
3112	Grain and Oilseed Milling
31121	Flour Milling and Malt Manufacturing
31122	Starch and Vegetable Fat and Oil Manufacturing
311221	Flour Milling and Malt Manufacturing
31123	Breakfast Cereal Manufacturing
3113	Sugar and Confectionary Product Manufacturing
31131	Sugar Manufacturing
31132	Chocolate and Confectionary Manufacturing from Cacoa Beans
31133	Confectionary Manufacturing from Purchased Chocolate
31134	Non-Chocolate Confectionary Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
31141	Frozen Food Manufacturing
31142	Fruit and Vegetable Canning, Pickling and Drying
3115	Dairy Product Manufacturing
31151	Dairy Product (except frozen) Manufacturing
311511	Fluid Milk Manufacturing
311515	Butter, Cheese, and Dry and Condensed Dairy Product Manufacturing
31152	Ice Cream and Frozen Dessert Manufacturing
3116	Meat Product Manufacturing
31161	Animal slaughtering and Processing
311611	Animal (except Poultry) Slaughtering
311614	Rendering and Meat Processing from Carcasses
311615	Poultry Processing
3117	Seafood Product Preparation and Packaging
31171	Seafood Product Preparation and Packaging
3118	Bakeries and Tortilla Manufacturing
31181	Bread and Bakery Product Manufacturing
311811	Retail Bakeries
311814	Commercial Bakeries and Frozen Bakery Product Manufacturing
31182	Cookie, Cracker and Pasta Manufacturing
31183	Tortilla Manufacturing
3119	Other Food Manufacturing
31191	Snack and Food Manufacturing
311911	Roasted Nut and Peanut Butter Manufacturing
311919	Other Food Snack Manufacturing
31192	Coffee and Tea Manufacturing
31193	Flavouring Syrup and Concentrate Manufacturing
31194	Seasoning and Dressing Manufacturing
3132	Fabric Mills
3133	Textile and Fabric Finishing and Fabric Coating
316	Leather and Allied Product Manufacturing
3161	Leather and Hide Tanning and Finishing
3162	Footwear Manufacturing
3169	Other Leather and Allied Product Manufacturing
325	Chemical Manufacturing
3253	Pesticide, Fertilizer and Other Agricultural Chemical Manufacturing
32531	Fertilizer Manufacturing
325313	Chemical Fertilizer (except Potash) Manufacturing
325314	Mixed Fertilizer Manufacturing
32532	Pesticide and Other Agricultural Chemical Manufacturing
325320	Pesticide and Other Agricultural Chemical Manufacturing

4.3 Estimating Activity Levels in the Study Region

The study region was defined to include the Toronto Census Metropolitan Area, the Hamilton Census Metropolitan Area, and the Regional Municipality of Niagara. The intent was to define a study region that would encompass the GTA AAC region as well as the regions of Hamilton, Niagara and the Holland Marsh. **Figure 4.3** presents our estimate of the level of primary production and related processing (i.e., manufacturing) activity that is taking place in the study region.

Figure 4.3—Estimating Agricultural Production and Related Processing Activity in the Study Region

Geographic Entity	GDP in 2008	Includes	Source
Canada	$99 Billion (in 2002 dollars)	Agriculture and Agri-food overall.	Agriculture and Agri-Food Canada (2009)
Canada	$46 Billion (in 2002 dollars)	Primary production and processing only.	Author's calculations based on Agriculture and Agri-Food Canada (2009)
Ontario	$15 Billion (in 2002 dollars)	Primary production and processing only.	Author's calculations based on Agriculture and Agri-Food Canada (2009)
Study Region	$8.9 Billion (in 2002 dollars)	Primary production and processing only.	Author's calculations.
Study Region	$10.32 Billion (in 2010 dollars)	Primary production and processing only.	Author's calculations.

Based on calculations summarized in **Figure 4.3**, we estimate that primary agricultural production and associated processing in the region amounts to more than $10 billion in GDP annually, or nearly 60 percent of all such activity in the Province of Ontario (Agriculture and Agri-Food Canada, 2009[3]). In what follows, the estimate of primary production and processing that takes place in the study region will be used to quantify the total economic impact, in terms of industry output, employment and GDP in the broader provincial and national economies.

4.4 Methodology

4.4.1 The Synthetic Regional Input-Output Model of the Study Region

The Synthetic Regional Input-Output (SRIO) model used here is based on the most recent (2005) Link (L) level Input-Output (IO) tables for Canada as a whole and adjusted structurally (on the basis of consensus input and various other sources) to represent the structure of the study region's economy. The link-level IO data will allow the study region's economy to be represented with an unparalleled level of industrial detail (105 4-digit NAICS industries).

The SRIO model has the following general structure:

Figure 4.4—Equation [1]

$$\Delta X^R = \left(I - \Omega\hat{\Phi}A\right)^{-1} \Delta Y^R$$

where

$$\Delta X^R = \begin{matrix} \Delta x_1^R \\ \Delta x_2^R \\ \Delta x_3^R \\ \Delta x_n^R \\ \Delta x_h^R \end{matrix} \quad \text{and where;} \quad \Delta Y^R = \begin{matrix} \Delta y_1^R \\ \Delta y_2^R \\ \Delta y_3^R \\ \Delta y_n^R \\ \Delta y_h^R \end{matrix}$$

where

$$\hat{\Phi} = \begin{matrix} \phi_1 & 0 \\ 0 & \phi_n \end{matrix}$$

where

$$\phi_i = \frac{\frac{e_i^R}{\sum_i e_i^R}}{\frac{e_i^{CAN}}{\sum_i e_i^{CAN}}}$$

where

$$\Omega = \begin{matrix} \omega_{11} & \omega_{1n} \\ \omega_{m1} & \omega_{mn} \end{matrix}$$

where

$$\omega_i = 1 - \frac{M_i}{D_i}$$

where

$$D_i = X_i - E_i + M_i$$

where the matrices $\dot{X}\ \dot{Y}$ and $\dot{A}$ denote standard IO matrices that have been augmented to allow for the endogenous treatment of consumption expenditures. In the above equations:

- X denotes a vector of industry gross output;
- Y denotes a vector of industry final demand;
- M denotes imports;
- e denotes employment;
- i and j represent industries where i is typically a row (selling) industry and j is typically a column (purchasing) industry;
- ϕ_i denotes an employment-based index of relative specialization;
- $\hat{\phi}$ is a diagonal matrix of ϕ_i's;
- ω_i denotes a domestic production share;
- Ω is a matrix of ω_i's
- l typically denotes occupations;
- V denotes total employment;
- E denotes exports;
- K denotes a matrix of occupation- and industry-specific employment multipliers; and,
- D denotes "domestic availability".

The impact model shown in Figure 4.4 translates estimates of regional activity levels, by specific industries, into economy-wide total impacts, inclusive of direct, indirect and induced impacts in terms of gross output, employment and Gross Domestic Product (GDP) by industry. In what follows, the primary production and related processing activities taking place in the study region (see **Figure 4.2**) will be run through the model (Equation 1) to generate estimates of the total economic impacts associated with this activity in the broader provincial and national economies.

4.5 Results

4.5.1 Overall Impacts

The study region generated more than $12.3 Billion worth of agricultural products and processed goods in 2008 (measured in constant 2005 dollars) (see **Figure 4.3**).

Figure 4.5—Results Summary [5]

Estimated Agricultural Production and Processing in the Study Region	$12,346,490,000.00
Total Output Impact in the Broader Provincial and National Economies	$34,694,793,263.59
Direct Impact	$5,947,585,985.52
Indirect Impact	$17,007,686,300.36
Induced Impact	11,739,520,977.71
Total Labour Impact	$7,279,222,583.80
Total Gross Domestic Product Impact	$15,848,315,064.55
Total Employment Impact in the Broader Provincial and National Economies	212,216

As a result of this production in the study region, **Figure 4.5** shows that the broader provincial and national economies experienced economic spin-off effects on the order of nearly $35 Billion in gross industry output, more than $7 Billion in labour income and more than 212,000 jobs in 2008! It is important to note that these impacts are being felt across Canada in response to the activities of the agriculture and agri-food cluster located within the study region.

4.5.2 Impacts Across Industries

Figure 4.6 presents a ranking of the top 25 industries in terms of the degree to which they are impacted by the operations of the primary production and processing activities in the study region. These 25 industries account for more than 76 percent of the total impact associated with agricultural production and associated processing in the study region. Interestingly, the remaining 80 industries account for less than one quarter of the total impact in the overarching provincial and national economies.

Figure 4.6—Top 25 Industries in Terms of Output Impact Stemming from Cluster Activities [6]

Industry	Gross Output Clsd	GDP	Employment
Crop and Animal Production	$4,465,134,695.72	$1,945,651,529.99	30,024
Meat Product Manufacturing	$2,686,848,535.32	$599,449,156.66	8,999
Miscellaneous Food Manufacturing	$2,222,802,697.40	$727,347,302.36	7,306
Wholesale Trade	$1,542,106,785.48	$914,997,787.31	11,850
Dairy Product Manufacturing	$1,438,835,961.18	$284,756,349.79	4,855
Other Finance, Insurance and Real Estate and Management of Companies and Enterprises	$1,134,300,753.89	$528,728,171.93	4,425
Retail Trade	$1,122,051,283.67	$710,306,156.28	20,963
Owner-Occupied Dwellings	$1,108,970,831.15	$980,338,345.38	4,144
Animal Food Manufacturing	$993,648,838.64	$205,344,619.16	2,890
Oil and Gas Extraction	$960,518,528.26	$694,455,818.78	67
Monetary Authorities and Depository Credit Intermediation	$804,602,466.56	$558,335,170.64	3,034
Pesticides, Fertilizer and Other Agricultural Chemical Manufacturing	$738,918,508.97	$198,189,579.59	995
Lessors of Real Estate	$737,721,448.05	$465,920,213.21	2,757
Fruit and Vegetable Preserving and Specialty Food Manufacturing	$701,734,593.84	$259,064,915.33	2,220
Textile and Textile Product Mills	$634,719,089.89	$269,352,011.61	3,625
Accommodation and Food Services	$585,736,794.55	$288,806,320.88	11,748
Computer Systems Design and Other Professional, Scientific and Technical Services	$569,599,050.71	$330,792,122.42	7,833
Administrative and Support Services	$561,624,723.90	$363,686,827.39	8,688
Pay TV, Specialty TV and Program Distribution and Telecommunications	$555,125,959.15	$358,050,334.78	2,040
Breweries	$520,235,981.48	$299,422,698.24	1,379
Seafood Product Preparation and Packaging	$484,800,496.32	$105,116,035.05	1,445
Sugar and Confectionery Product Manufacturing	$483,529,983.01	$173,453,792.11	1,549

Figure 4.6 shows that the industry most significantly impacted by the activities of this cluster in the study region is "Crop and Animal Production" itself. This result is not unexpected given the fact that primary production makes substantial intra-industry purchases (i.e., primary producers frequently buy inputs/sell output to/from other primary producers)[7]. This result is also expected since the food manufacturing industries draw direct inputs from primary producers. The "Meat Product Manufacturing" and "Miscellaneous Food Product Manufacturing" industries ranked second and third respectively in terms of output, GDP and employment impacts. Appendix 4 presents this information for all 105 industries in the model.

Also evident in Figure 4.6 is the degree to which primary agricultural production and associated processing is entwined with the rest of the economic system. Specifically, industries like "Wholesale Trade", "Retail Trade" and other high value-added services appear in the top 20 industries in terms of total economic impact. In other words, activity of the agriculture and agri-food cluster in the study region stimulates economic impacts across all industries in the national economy, including those in the upper echelons of the service and knowledge economies. This finding cannot be overstated; agricultural production and food processing activities in the study region not only generate substantial economic impacts across the entire country, but they also trigger economic activity in all industrial categories in the national economy. The extent to which economic activity Canada-wide across all economic sectors is dependent on the primary production and associated processing is clear to see. No longer should we view agriculture as the poor cousin vis-à-vis employment, commercial, residential and other uses. On the basis of these findings, a compelling economic case can be made for the retention of farm land in the study region and indeed across Canada. At the very least, these results better inform the cost-benefit analyses being performed to evaluate the pros and cons associated with paving over yet another acre of farmland.

Figure 4.7 underscores this finding by showing that a significant portion of the total impact across all industries is composed of indirect and induced impacts. *Direct impacts* are those that stem from the direct input requirements of the industry in question. Direct input purchases also stimulate additional rounds of spending as input providers purchase inputs from their input suppliers to produce their outputs (e.g. a producer of seeds purchases electricity, a diesel fuel wholesaler purchases labour and the services of legal and financial experts, etc.) and so on. These additional rounds of spending stimulated by the direct input purchases of the industry under study are referred to as the *indirect effects* (see Figure 4.1 for a representation of these rounds of spending - the income multiplication process in a regional economy). *Induced impacts* refer to those additional rounds of spending that stem from income earned by workers in the various industries in the economy that are impacted directly and indirectly by the initial shock (i.e., by the activities of the industries in question)[8]. An example of an induced effect in the context of an individual agricultural operation would be as follows:

1. Demand for organic fruit and vegetables is rising steadily in Ontario;
2. Fruit and Vegetable Operation X, to meet an anticipated 50 percent increase in demand for its product, places an order for 50 percent more raw seed (this purchase of seed would be part of the direct effect of the shock);

3. The seed wholesaler is experiencing larger orders for seed from all customers and has to buy more raw seed, more electricity, more natural gas etc. (this is part of the indirect impact associated with the initial Food and Vegetable shock). In addition to raw seed, electricity and natural gas, the seed wholesaler would have to buy more of most inputs including labour;
4. A new employee hired by the seed wholesaler as a result of rising demand for whole grain foods in Ontario uses part of her/his net income to purchase food products, a variety of goods and services, a new Ford truck, and a new home. These purchases made by the employee of the seed wholesaler in-turn stimulate the economy yet again (i.e., the food stuffs must be produced, the Ford vehicle (e.g. the Edge) must be manufactured (in Oakville Ontario), and the home purchase represents a further stimulus to the housing industry in Ontario.) These impacts that flow from the original Fruit and Vegetable shock via the earnings of a new employee hired as a result of the shock itself, are examples of induced impacts associated with the original shock to the provincial Fruit and Vegetable industry.

The regional economic impact model developed for this project is designed to compute the total, direct, indirect and induced economic impacts in Ontario and Canada overall associated with the operations of the primary agricultural production and associated processing activities in the study region.

In aggregate, nearly 50 percent of the total impact is made up of indirect impacts, with another 34 percent accounted for by induced impacts. In other words, more than 84 percent of the total impact associated with the activities of agricultural production and associated processing in the study region is the result of economic linkages between the many industrial sectors that make up the economic systems of the region, the province and the nation.

Figure 4.7—Top 25 Industries, Total Impacts Decomposed into Direct, Indirect and Induced Components [9]

	Total Impact	Direct Impact	Indirect Impact	Induced Impact
Crop and Animal Production	$4,465,134,695.72	$604,132,567.26	$3,742,211,188.40	$118,790,940.06
Meat Product Manufacturing	$2,686,848,535.32	$437,492,291.27	$2,085,103,762.11	$164,252,481.94
Miscellaneous Food Manufacturing	$2,222,802,697.40	$278,951,173.89	$1,782,552,361.58	$161,299,161.93
Wholesale Trade	$1,542,106,785.48	$627,643,118.93	$358,586,481.35	$555,877,185.20
Dairy Product Manufacturing	$1,438,835,961.18	$188,915,601.28	$1,132,574,106.51	$117,346,253.39
Other Finance, Insurance and Real Estate and Management of Companies and Enterprises	$1,134,300,753.89	$168,980,640.75	$324,698,149.88	$640,621,963.26
Retail Trade	$1,122,051,283.67	$59,798,037.04	$72,104,380.27	$990,148,866.35
Owner-Occupied Dwellings	$1,108,970,831.15	$-	$-	$1,108,970,831.15
Animal Food Manufacturing	$993,648,838.64	$384,264,980.60	$584,259,131.77	$25,124,726.27
Oil and Gas Extraction	$960,518,528.26	$260,234,258.51	$401,734,737.26	$298,549,532.49
Monetary Authorities and Depository Credit Intermediation	$804,602,466.56	$154,386,603.81	$160,865,923.81	$489,349,938.93
Pesticides, Fertilizer and Other Agricultural Chemical Manufacturing	$738,918,508.97	$245,155,385.59	$481,858,916.63	$11,904,206.75
Lessors of Real Estate	$737,721,448.05	$26,474,659.91	$136,107,660.01	$575,139,128.12
Fruit and Vegetable Preserving and Specialty Food Manufacturing	$701,734,593.84	$51,871,611.20	$588,745,661.47	$61,117,321.18
Textile and Textile Product Mills	$634,719,089.89	$36,042,933.86	$556,104,454.07	$42,571,701.95
Accommodation and Food Services	$585,736,794.55	$12,919,153.31	$44,328,724.12	$528,488,917.12
Computer Systems Design and Other Professional, Scientific and Technical Services	$569,599,050.71	$130,034,679.06	$205,308,747.75	$234,255,623.90
Administrative and Support Services	$561,624,723.90	$145,630,112.45	$176,453,713.05	$239,540,898.40
Pay TV, Specialty TV and Program Distribution and Telecommunications	$555,125,959.15	$60,559,432.97	$137,782,234.94	$356,784,291.24
Breweries	$520,235,981.48	$2,334,545.45	$469,720,082.64	$48,181,353.40
Seafood Product Preparation and Packaging	$484,800,496.32	$68,387,692.01	$401,359,213.13	$15,053,591.18
Sugar and Confectionery Product Manufacturing	$483,529,983.01	$58,102,878.93	$389,716,007.53	$35,711,096.54
Petroleum and Coal Products Manufacturing	$473,774,366.03	$111,097,168.28	$127,741,565.91	$234,935,631.83
Electric Power Generation, Transmission and Distribution	$463,735,437.69	$138,273,044.44	$94,226,291.05	$231,236,102.21
Soft Drink and Ice Manufacturing	$457,427,111.97	$59,794,682.43	$362,889,083.14	$34,743,346.39

4.6 Discussion

This analysis, while admittedly only considering a portion of the overall agriculture and agri-food complex, shows that these activities are having a very substantial economic impact across the regions and industrial sectors of Canada. More than 212,000 jobs are stimulated or maintained in Canada annually by the demands of primary production and processing activities in the study region alone. Clearly, the agriculture and agri-food cluster represents one of the major economic powerhouses of this regional economy, and indeed the nation.

Previous work has highlighted the economic importance of primary production in the many regional economies that comprise the bulk of the Golden Horseshoe. Until now, a clear picture of the economic importance of the value chain that is fed by this local primary agriculture production has been tenuous at best. The results reported herein, while admittedly conservative (i.e. wholesale, retail and food service was not considered), lend substantial weight to the pleas made by groups like The Ontario Farmland Trust and others that farmland is something that should be protected, and our capacity to produce foodstuffs should be maintained if not expanded.

Figure 4.8—Total Output Multipliers by Industry in the Study Region : Top 50 Industries Canada—Wide

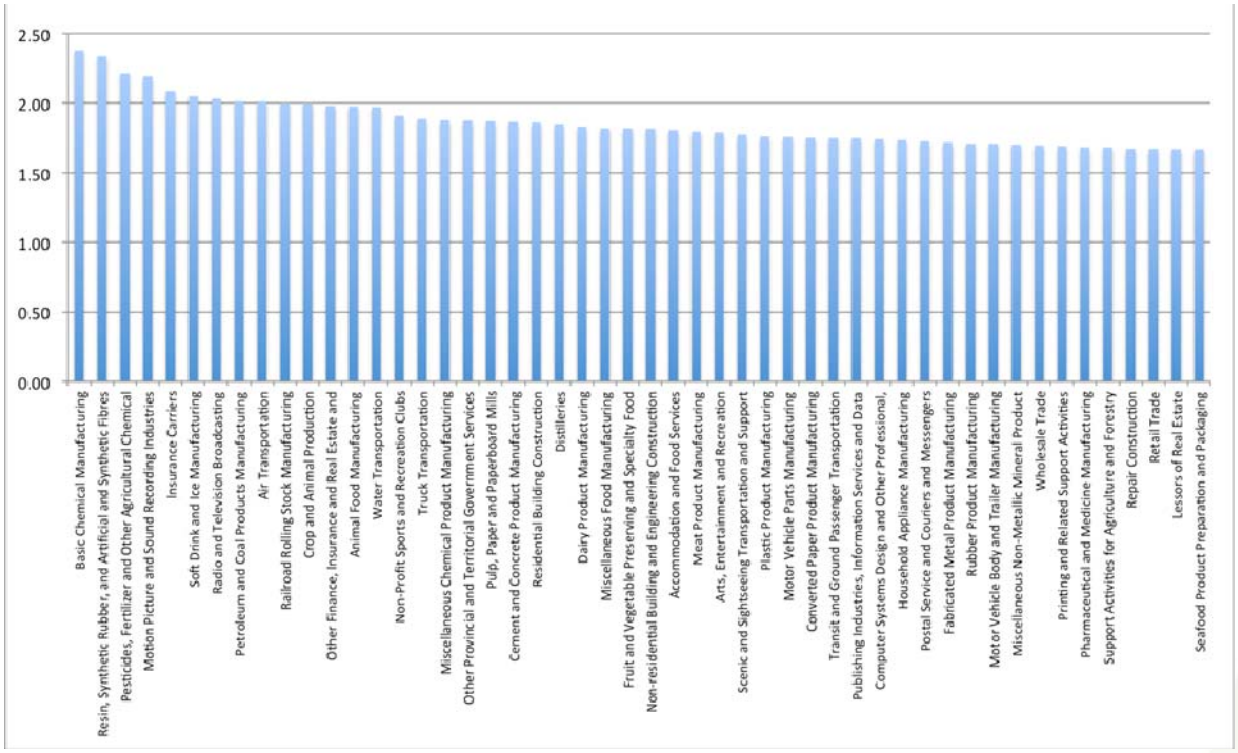


Figure 4.8 presents total output multipliers for the top 50 industries in the study region. Total Output Multipliers (TOMs) represent the total impact (including direct, indirect and induced effects) of a one dollar change in the final demand for the output of that industry. For example, the TOM for "Basic Chemical Manufacturing" was found to be 2.38. This means that each dollar of demand for the output of "Basic Chemical Manufacturing" industry in the study region will stimulate nearly $2.40 in output in all other industries in the broader regional, provincial and national economies. Hence, the larger the TOM, the greater the industry's degree of interconnectedness with the broader regional, provincial and national economies.

Figure 4.8 shows that many of the industries targeted in this analysis as being key components of the agricultural production and processing complex in the study region have TOMS (i.e., degrees of interconnectedness) that rival those associated with stalwart manufacturing sectors like "Motor Vehicle Manufacturing" and "Motor Vehicle Parts Manufacturing". **Figure 4.7** underscores this finding by showing the industries earmarked for inclusion in our analysis (i.e., primary producers and related processors) add up to a total output level that is comparable to (albeit slightly less than) a long time iconic cluster in the region, the province and the nation – automobile and auto parts manufacturing.

Figure 4.9— A Comparison of Gross Output Values in 2005 for Auto-Related Manufacturing and Agricultural Production and Processing Industries

Rank	Sample Stalwart Traditional Manufacturing: Automotive	000s		Rank	Primary Agricultural Production and Food and Related Processing	000s
8	Motor Vehicle Manufacturing	$70,403,125.00		24	Crop and Animal Production	$39,067,306.00
15	Primary Metal Manufacturing	$49,791,883.00		36	Meat Product Manufacturing	$21,049,742.00
29	Motor Vehicle Parts Manufacturing	$33,954,238.00		38	Miscellaneous Food Manufacturing	$18,389,424.00
80	Motor Vehicle Body and Trailer Manufacturing	$4,700,073.00		56	Dairy Product Manufacturing	$11,867,021.00
				69	Fruit and Vegetable Preserving and Specialty Food Manufacturing	$6,311,904.00
				75	Animal Food Manufacturing	$5,107,265.00
				76	Breweries	$5,098,226.00
				83	Seafood Product Preparation and Packaging	$4,193,158.00
				84	Sugar and Confectionery Product Manufacturing	$4,117,715.00
				86	Soft Drink and Ice Manufacturing	$3,816,975.00
				90	Tobacco Manufacturing	$3,346,239.00
				97	Support Activities for Agriculture and Forestry	$2,596,297.00
				103	Wineries	$827,335.00
				104	Distilleries	$812,637.00
				105	Leather and Allied Product Manufacturing	$540,336.00
	Total Output in 2005 Dollars	**$158,849,319.00**				**$127,141,580.00**

These results are important in that studies focusing on production alone often reveal that agriculture is small relative to manufacturing in terms of spin-off effects. This analysis shows that a great deal of the manufacturing complex that is presently in place exists to exploit our comparative advantage in the production of myriad agricultural commodities. The results do add credence to the notion that farmers feed the world – they do so by actually producing food (the obvious connection) as well as by providing the raw materials that drive a significant piece of our manufacturing industrial complex – a complex that employs (directly and indirectly) the majority of Canadians.

4.7 Summary and Conclusions

Based on this analysis it can be concluded that the total impact of the $12.3 billion of economic activity associated with the agri-food cluster in the Golden Horseshoe in 2008 had a substantial annual impact on the provincial and the national economies. This impact included approximately:

- $35 billion in total output impact
- $16 billion in GDP; and
- $7 billion in labour impact.

[1] http://www.ofvga.org/readnews.php?ID=2010-04-04%2021:16:48#_jmp0_

[2] It is very important to keep in mind our very conservative definition of the cluster. Only primary production and processing is included.

[3] "An Overview of the Canadian Agriculture and Agri-Food System 2009" Research and Analysis Directorate, Strategic Policy Branch, Agriculture and Agri-Food Canada.

[4] This figure represents gross industry output and is derived from the GDP estimate presented in Figure 21.

[5] All monetary figures expressed in 2005 dollars.

[6] These impacts accrue Canada-wide and are the result of the activities of the agriculture and agri-food cluster located in the study region.

[7] For example, beef farmers buying hay from other farmers; chicken farmers buying chicks from another, etc.

[8] When an industry is called upon to provide inputs to the cluster, it too must draw inputs from its suppliers (see Figure 19). All industries buy labour to conduct their business, and a portion of the income earned by labour is spent in the economy (e.g., to buy manufactured items, services, consumables etc.), and this additional consumption demand must be met with additional industrial output. It is this additional industrial output, *induced* by the consumption behaviour of workers, which constitutes the induced effect of an initial shock.

[9] The values shown in Figure 25 represent the economic impacts associated with the operation of the primary production and processing activities located in the study region. Row 7 of the table, for example, shows that in producing more than $10 billion in output in 2008, the primary production and processing industries in the region triggered more than $1.1 billion in retail sales across the region, the province and the nation. This total impact is the sum of the associated direct, indirect and induced effects. Likewise, this activity in the study region also stimulated more than $738 Million in output Canada-wide.

Chapter 5 - Demographic Characteristics

To develop a foood and farming straetgy for the Golden Horseshoe, an understanding of population, age, ethnicity, immigration, language, income, education, and employment trends is essential. Understanding demograhics assists in identifying and responding to existing and emerging consumer and labour market trends and capturing opportunities for growth

In 2005, the GTA Agricultural Action Plan identified cultural diversity in the GTA as an opportunity for the agricultural industry that should be considered in conjunction with decisions about the commodity profile, marketing and education practices. This situation has not changed. To grow and evolve, the agri-food cluster must anticipate and captialize on trends.

5.1 Population Growth

As shown on **Figure 5.1**, the population of the Golden Horseshoe increased by 28% between 1991 and 2006. Under the provincial growth plan initiative "Places to Grow", an additional 3.7 million people are expected to live in the Golden Horseshoe by 2031.

Currently all but one of the Golden Horseshoe Regions is experiencing a higher rate of growth than the City of Toronto. While this growth represents an increasing market for agricultural products, accommodating this growth will have implications for Golden Horseshoe producers. Not only will they face additional pressures associated with farming in areas that have been designated for, or are experiencing growth, additional land will be taken out of production.

At the time this report was prepared, the regions of the Golden Horseshoe had completed updates to their Official Plans to accommodate the growth assigned to them to 2031 under the Growth Plan. This process required the completion of detailed growth strategies to determine how much land would be required to accommodate the allocated growth; where growth would be directed; and the phasing under which the growth would occur. With this process complete, there is now an understanding of what lands will be coming out of production and more certainty, about what areas will be available for production to 2031 and beyond.

Figure 5.1—Population Growth in Golden Horseshoe Municipalities, 1991—2006

Regional Municipality	1991	1996	2001	2006	1991 to 2006
Durham	409,070	458,616	506,901	561,258	37.20%
Halton	313,136	339,875	375,229	439,256	40.28%
Peel	732,798	852,526	988,958	1,159,405	58.22%
Toronto	2,275,771	2,385,421	2,481,494	2,503,281	10.00%
York	504,981	592,445	729,254	892,712	76.78%
Hamilton	451,665	467,799	490,268	504,559	11.71%
Niagara	393,936	403,504	410,574	427,421	8.50%
Total Golden Horseshoe	5,081,357	5,500,186	5,982,678	6,487,892	27.68%

Source: Statistics Canada, 1991, 1996, 2001 and 2006 Census of Population

Challenges arising from this process will include: encouraging production to continue on lands designated for future growth; curbing speculation and pressure on the agricultural lands abutting areas designated for growth; avoiding potential conflicts and managing circumstances to encourage ongoing production; and ensuring there are services and appropriate infrastructure to support agricultural operations.

While the rapid pace of growth in the Golden Horseshoe creates challenges, it also creates opportunities for the agri-food industry. In planning for the future, businesses can rely on a rapidly expanding market for their goods. As shown on **Figure 5.2**, this market is concentrated in municipalities surrounding the City of Toronto and in the urban areas along the Lake Ontario shoreline.

With respect to density, **Figure 5.3** confirms that in 2006 in the Golden Horseshoe, the City of Toronto had the highest population density followed by the Region of Peel.

Figure 5.3— Population Density in the Golden Horseshoe, 1991—2006

	Toronto	Peel	York	Durham	Halton	Niagara	Hamilton	Golden Horseshoe
Area in Square Kilometres	630.18	1,242.40	1,761.84	2,523.15	967.17	1,854.17	1,117.21	10,096.11
1991 People per Square Kilometre	3,611.30	589.82	286.62	162.13	323.77	212.84	405.81	503.30
1996 People per Square Kilometre	3,785.30	679.84	336.26	181.76	351.41	218.01	420.31	544.78
2001 People per Square Kilometre	3,937.75	788.63	413.92	200.90	387.97	220.40	438.90	592.57
2006 People per Square Kilometre	3,972.33	924.56	506.69	222.44	454.17	230.50	451.60	642.61

Source: Statistics Canada, 1991, 1996, 2001 and 2006 Census of Population

Figure 5.2 illustrates the density that characterizes the urban areas of Toronto, Hamilton, Mississauga and the urban areas along the shoreline of Lake Ontario. Indeed the urban / rural split in the Golden Horseshoe is quite clearly illustrated on this map. Density is concentrated along the lakeshore and the transportation corridors; the outlining portions of the region are largely low density.

Population distribution contributes to a number of issues. Densely populated areas provide good markets for product and sources of labour but also create challenges for expansion. The cost of land rises as densities rise and supply becomes increasingly limited. Therefore a business that is succeeding may not have any room to expand in its current location. Moving is not an option because it will create a disconnect between the business and its market and source of labour.

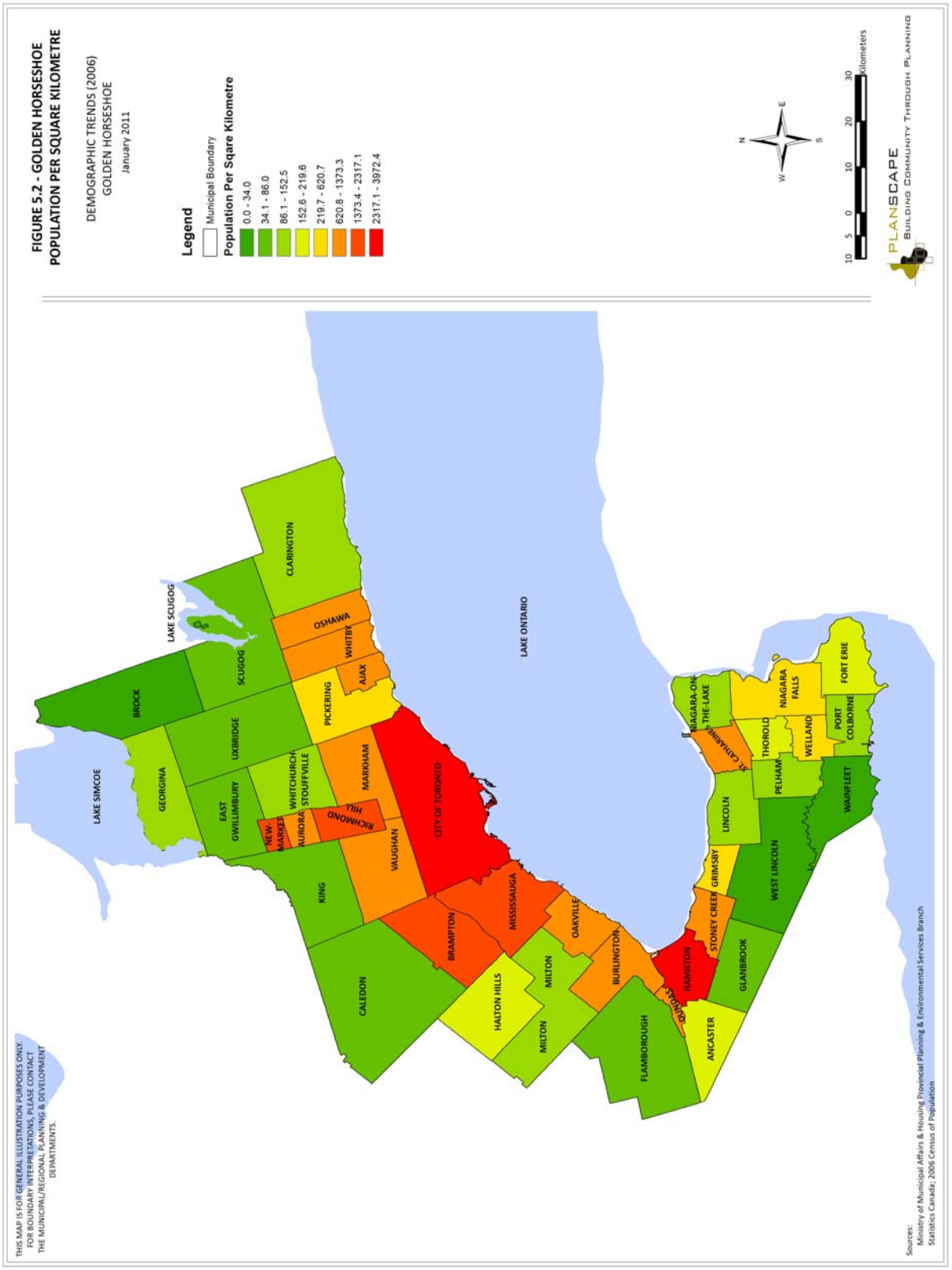


FIGURE 5.2 - GOLDEN HORSESHOE
POPULATION PER SQUARE KILOMETRE
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Population Per Sqare Kilometre
0.0 - 34.0
34.1 - 86.0
86.1 - 152.5
152.6 - 219.6
219.7 - 620.7
620.8 - 1373.3
1373.4 - 2317.1
2317.1 - 3972.4
Kilometers
PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SCUGOG
LAKE SIMCOE
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
SCUGOG
BROCK
UXBRIDGE
GEORGINA
EAST GWILLIMBURY
WHITCHURCH-STOUFFVILLE
MARKHAM
RICHMOND HILL
AURORA
NEWMARKET
KING
VAUGHAN
CITY OF TORONTO
CALEDON
BRAMPTON
MISSISSAUGA
OAKVILLE
HALTON HILLS
MILTON
BURLINGTON
HAMILTON
FLAMBOROUGH
ANCASTER
STONEY CREEK
GRIMSBY
GLANBROOK
LINCOLN
WEST LINCOLN
PELHAM
WAINFLEET
THOROLD
WELLAND
PORT COLBORNE
NIAGARA FALLS
FORT ERIE
NIAGARA-ON-THE-LAKE
ST. CATHARINES
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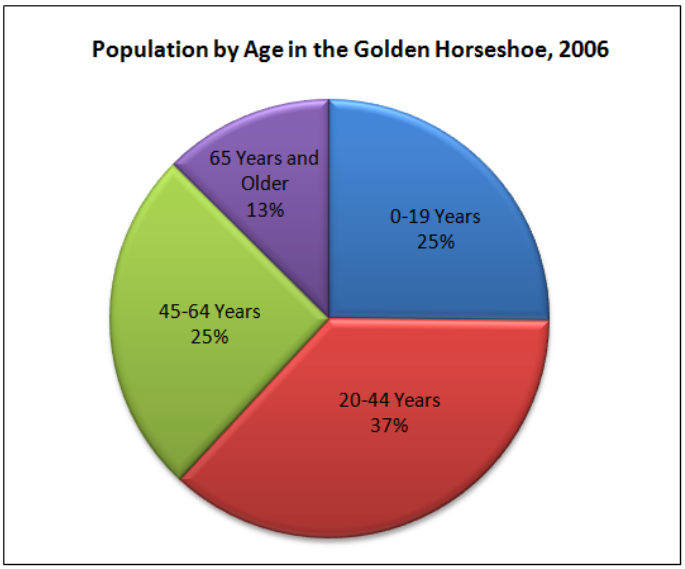
DEPARTMENTS.
Sources:
Ministry of Municipal Affairs & Housing Provincial Planning & Environmental Services Branch
Statistics Canada; 2006 Census of Population

5.2 Age Profile

Figure 5.4 shows the breakdown of the age profile for the Golden Horseshoe in 2006. Geographically, as shown on Figure 5.5, the 45 to 64 year age group is clustered in the less urbanized areas north of Toronto and in specific parts of Niagara Region. Figure 5.6 illustrates that in 2006, the 65 years and over category were highly concentrated in the eastern portion of Niagara Region. The urban areas are characterized by a younger population profile. As a whole, the population profile of the Golden Horseshoe is younger than the profile of the province generally.

Figure 5.4—Age of Population in the Golden Horseshoe, 2006



The relatively young overall age profile of the Golden Horseshoe bodes well for market development for agricultural products. Research indicates that the 20 to 44 year old age group is the one most interested in organic products. The market for organic and local products tends to be driven by age and income. Given that this group is clustered in the more urbanized area of the Golden Horseshoe, and as shown on Figure 32, the highest density of population is located in that area; producers need to create linkages, market products and establish retail outlets that connect with and take advantage of this market.

On the negative side, the clustering of the younger age group in the urban centres may contribute to a lack of appreciation about employment opportunities associated with food and farming or about agriculture and food production generally. Efforts should be made to address this knowledge gap with the younger generation. Programs to link urban residents with farms and farmers, curriculum that educates the urban population about agriculture and food production and an increased profile illustrating the diversity and opportunities associated with the agri-food cluster are possible actions that should be considered. In a study released in 2006, entitled "Workforce Ahead"[1]. The Alliance of Ontario Food

Processers acknowledged this problem

The imbalances that will soon develop between projected labour demand and expected labour supply are striking and should be of great concern to everyone. With the exception of the '905' belt around Toronto, food processing firms in all other regions of Ontario face serious, long-term worker shortages. Sub-sectors, such as Grain and Oilseed Milling on the one hand, and Sugar and Confectionery on the other, have much older labour forces on average. As a result, these sub-sectors are expected to experience the impact of labour shortages earlier than others. Current worker shortages in the Meat and Baking sub-sectors, two of the most labour intensive sub-sectors of food processing, may be expected to worsen and spread to other sub-sectors.

Working with the food processing sector, programs to promote agricultural employment opportunities should be included in the secondary school curriculum and offered at post secondary institutions. The recent opening of the Food Technology Institute at Conestoga College and the agricultural programs at the University of Guelph and certain community colleges are good examples of steps that can be taken to support the cluster.

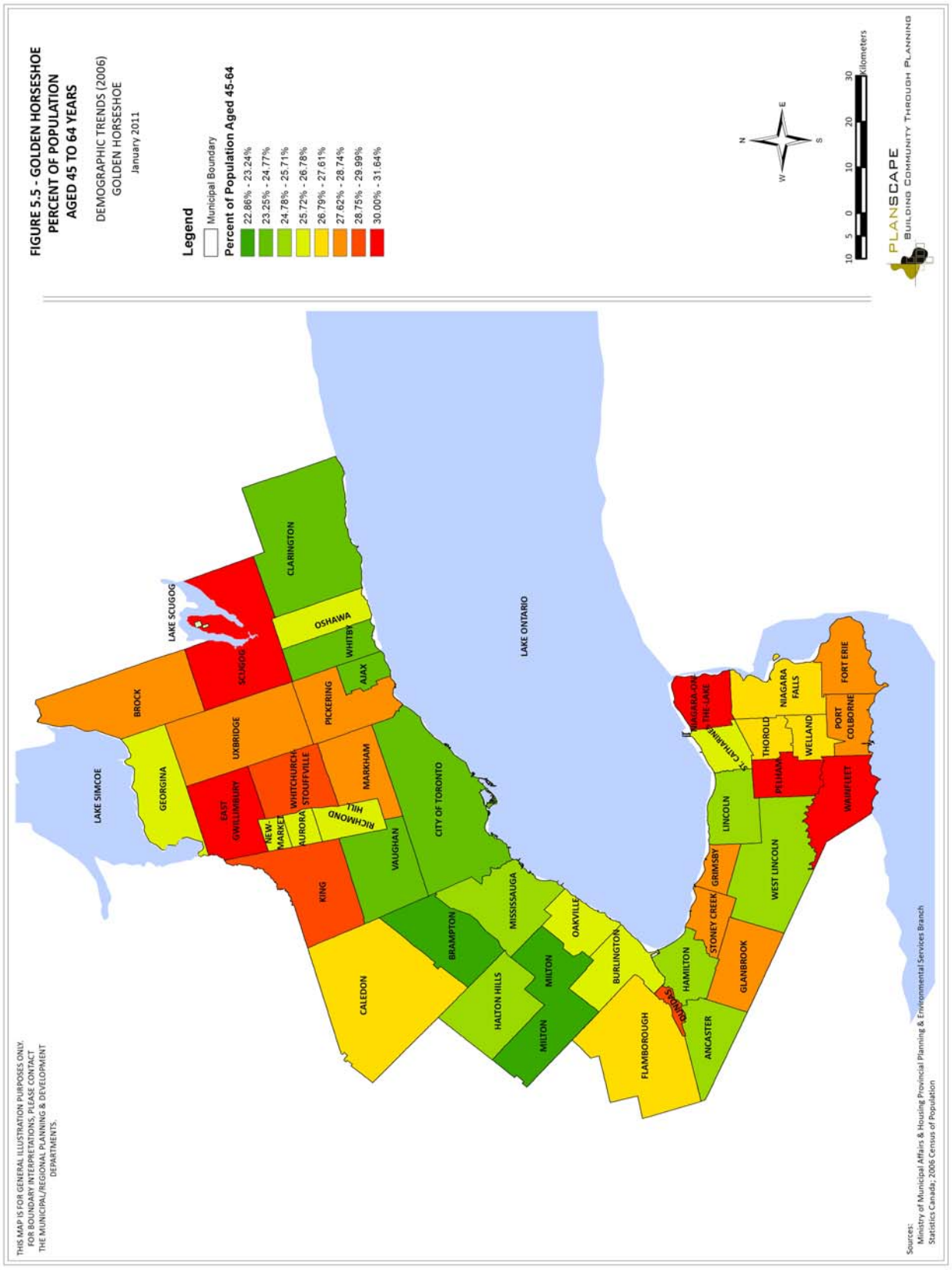


FIGURE 5.5 - GOLDEN HORSESHOE
PERCENT OF POPULATION
AGED 45 TO 64 YEARS
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Percent of Population Aged 45-64
22.86% - 23.24%
23.25% - 24.77%
24.78% - 25.71%
25.72% - 26.78%
26.79% - 27.61%
27.62% - 28.74%
28.75% - 29.99%
30.00% - 31.64%
N
E
W
S
10 5 0 10 20 30 Kilometers
PLANSCAPE
Building Community Through Planning
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
BROCK
GEORGINA
EAST GWILLIMBURY
NEWMARKET
WHITCHURCH-STOUFFVILLE
AURORA
KING
UXBRIDGE
SCUGOG
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
RICHMOND HILL
MARKHAM
VAUGHAN
CITY OF TORONTO
CALEDON
BRAMPTON
MISSISSAUGA
OAKVILLE
BURLINGTON
HALTON HILLS
MILTON
MILTON
FLAMBOROUGH
DUNDAS
HAMILTON
STONEY CREEK
GRIMSBY
LINCOLN
WEST LINCOLN
GLANBROOK
ANCASTER
ST. CATHARINES
NIAGARA-ON-THE-LAKE
THOROLD
PELHAM
WELLAND
NIAGARA FALLS
PORT COLBORNE
FORT ERIE
WAINFLEET
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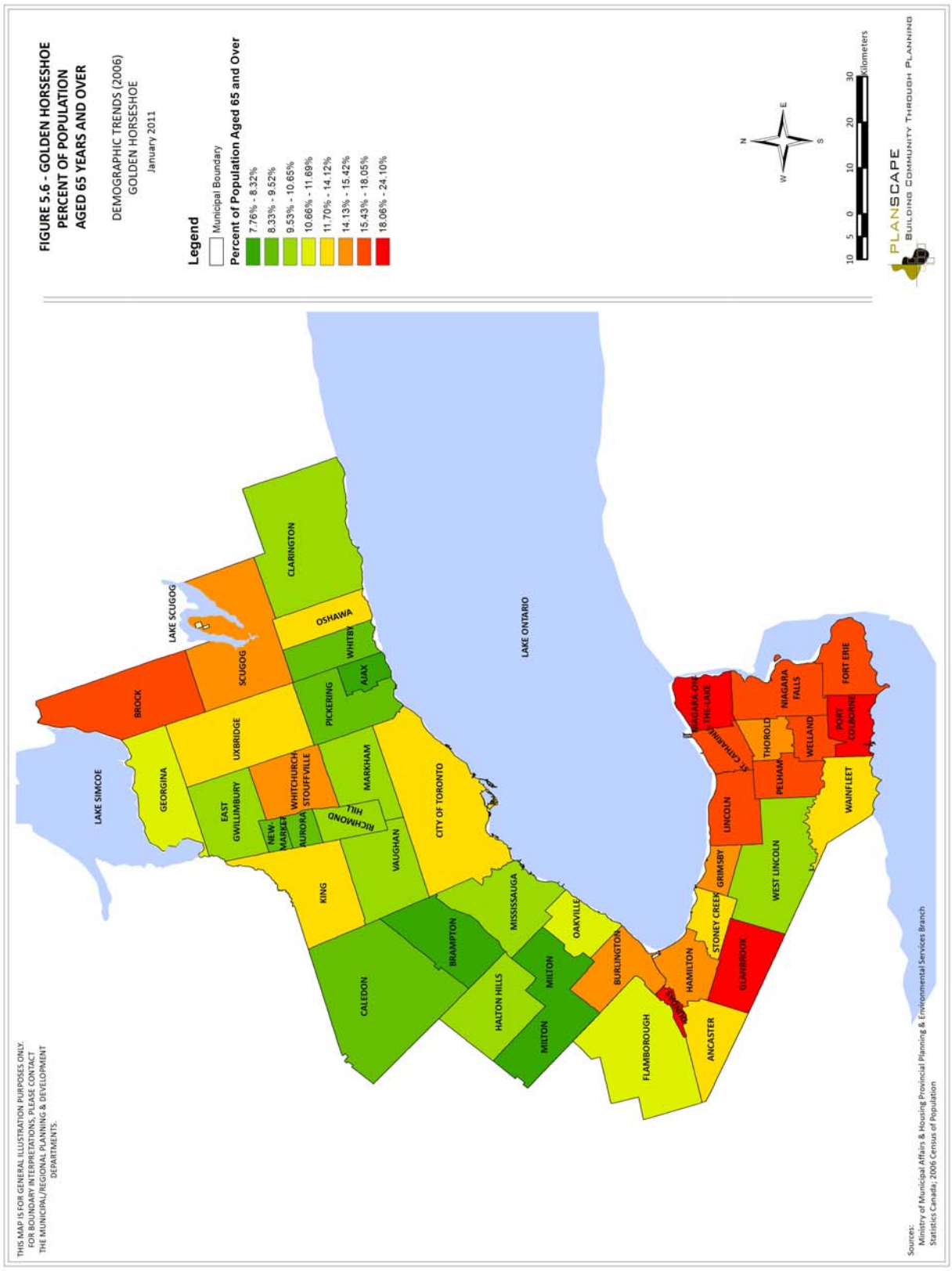
FIGURE 5.6 - GOLDEN HORSESHOE
PERCENT OF POPULATION
AGED 65 YEARS AND OVER
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Percent of Population Aged 65 and Over
7.76% - 8.32%
8.33% - 9.52%
9.53% - 10.65%
10.66% - 11.69%
11.70% - 14.12%
14.13% - 15.42%
15.43% - 18.05%
18.06% - 24.10%
N
W
E
S
10 5 0 10 20 30 Kilometers
PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
BROCK
SCUGOG
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
UXBRIDGE
GEORGINA
EAST GWILLIMBURY
WHITCHURCH-STOUFFVILLE
NEWMARKET
AURORA
RICHMOND HILL
MARKHAM
VAUGHAN
CITY OF TORONTO
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BRAMPTON
MISSISSAUGA
OAKVILLE
HALTON HILLS
MILTON
BURLINGTON
FLAMBOROUGH
HAMILTON
ANCASTER
DUNDAS
STONEY CREEK
GRIMSBY
LINCOLN
WEST LINCOLN
GLANBROOK
NIAGARA-ON-THE-LAKE
ST. CATHARINES
THOROLD
PELHAM
NIAGARA FALLS
WELLAND
PORT COLBORNE
WAINFLEET
FORT ERIE
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Sources:
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Statistics Canada; 2006 Census of Population

5.3 Ethnic Origins and Visible Minorities

The changing ethnic profile of the Golden Horseshoe drives changing demands for products, opens new markets and provides opportunities to attract new participants to the food and farming sector. Over the past 10 years, as shown in **Figure 5.7**, the proportion of immigrants in the Golden Horseshoe has grown steadily. In 2006, 40% (2,603,115) of Golden Horseshoe residents were immigrants.

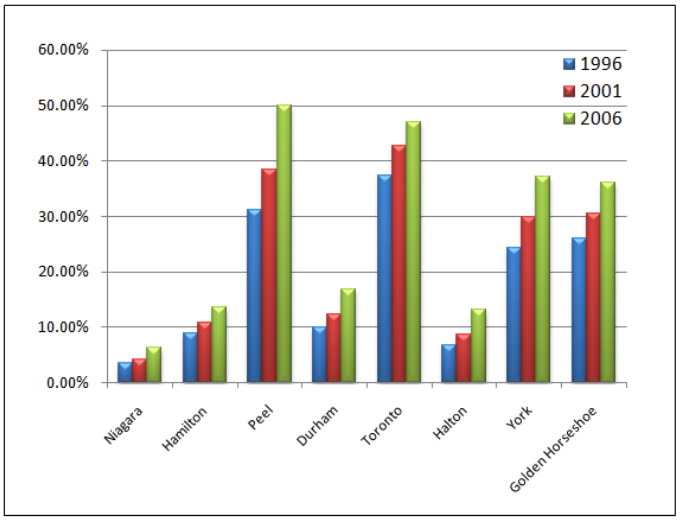
Figure 5.7— Proportion of Immigrants in the Golden Horseshoe, 1996—2006

	1996	2001	2006
Niagara	17.89%	17.60%	17.98%
Hamilton	24.36%	24.73%	25.43%
Peel	39.81%	43.10%	48.63%
Durham	18.70%	18.87%	20.35%
Toronto	47.14%	49.44%	49.98%
Halton	22.45%	22.35%	24.79%
York	35.65%	39.11%	42.88%
Golden Horseshoe	36.78%	38.64%	40.48%

Source: Statistics Canada, 1991, 1996, 2001 and 2006 Census of Population

In 2006, the Golden Horseshoe was home to immigrants of over 200 different ethnic origins.. Visible Minorities accounted for 36% (2,314,280) of the total population. Regions within the Golden Horseshoe with the highest percentage of visible minorities were Peel (50%), Toronto (47%) and York (37%). Figure 5.8 illustrates the steady growth in visible minorities and the regional breakdown of where they have settled inside the Golden Horseshoe.

Figure 5.8—Visible Minorities in the Golden Horseshoe, 1996—2006



Source: Statistics Canada, 1991, 1996, 2001 and 2006 Census of Population

Figure 5.9 confirms that the overall settlement pattern of new immigrants tends to be centralized. In 2006, over 30% of their population of the populations of Brampton, Mississauga, Vaughan, Richmond Hill, Markham and the City of Toronto were immigrants. Minor clusters of immigrants are also present in Hamilton/Stoney Creek and Niagara-on-the-Lake.

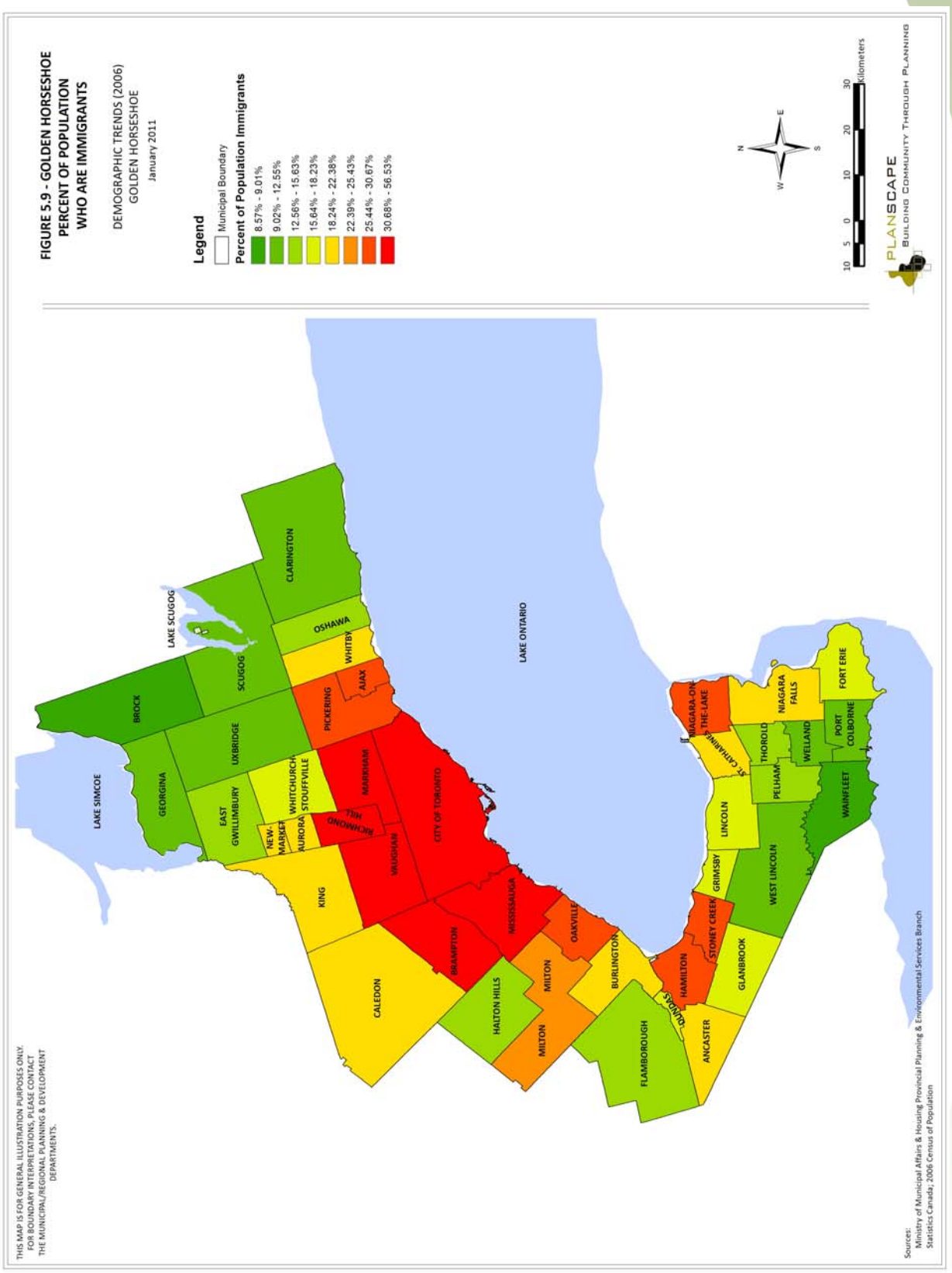


FIGURE 5.9 - GOLDEN HORSESHOE
PERCENT OF POPULATION
WHO ARE IMMIGRANTS
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Percent of Population Immigrants
8.57% - 9.01%
9.02% - 12.55%
12.56% - 15.63%
15.64% - 18.23%
18.24% - 22.38%
22.39% - 25.43%
25.44% - 30.67%
30.68% - 56.53%
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PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
BROCK
GEORGINA
SCUGOG
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
UXBRIDGE
EAST GWILLIMBURY
WHITCHURCH-STOUFFVILLE
NEWMARKET
AURORA
RICHMOND HILL
MARKHAM
CITY OF TORONTO
VAUGHAN
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CALEDON
BRAMPTON
MISSISSAUGA
OAKVILLE
HALTON HILLS
MILTON
MILTON
BURLINGTON
FLAMBOROUGH
DUNDAS
HAMILTON
ANCASTER
STONEY CREEK
GLANBROOK
GRIMSBY
LINCOLN
WEST LINCOLN
NIAGARA-ON-THE-LAKE
ST. CATHARINES
THOROLD
PELHAM
NIAGARA FALLS
WELLAND
WAINFLEET
PORT COLBORNE
FORT ERIE
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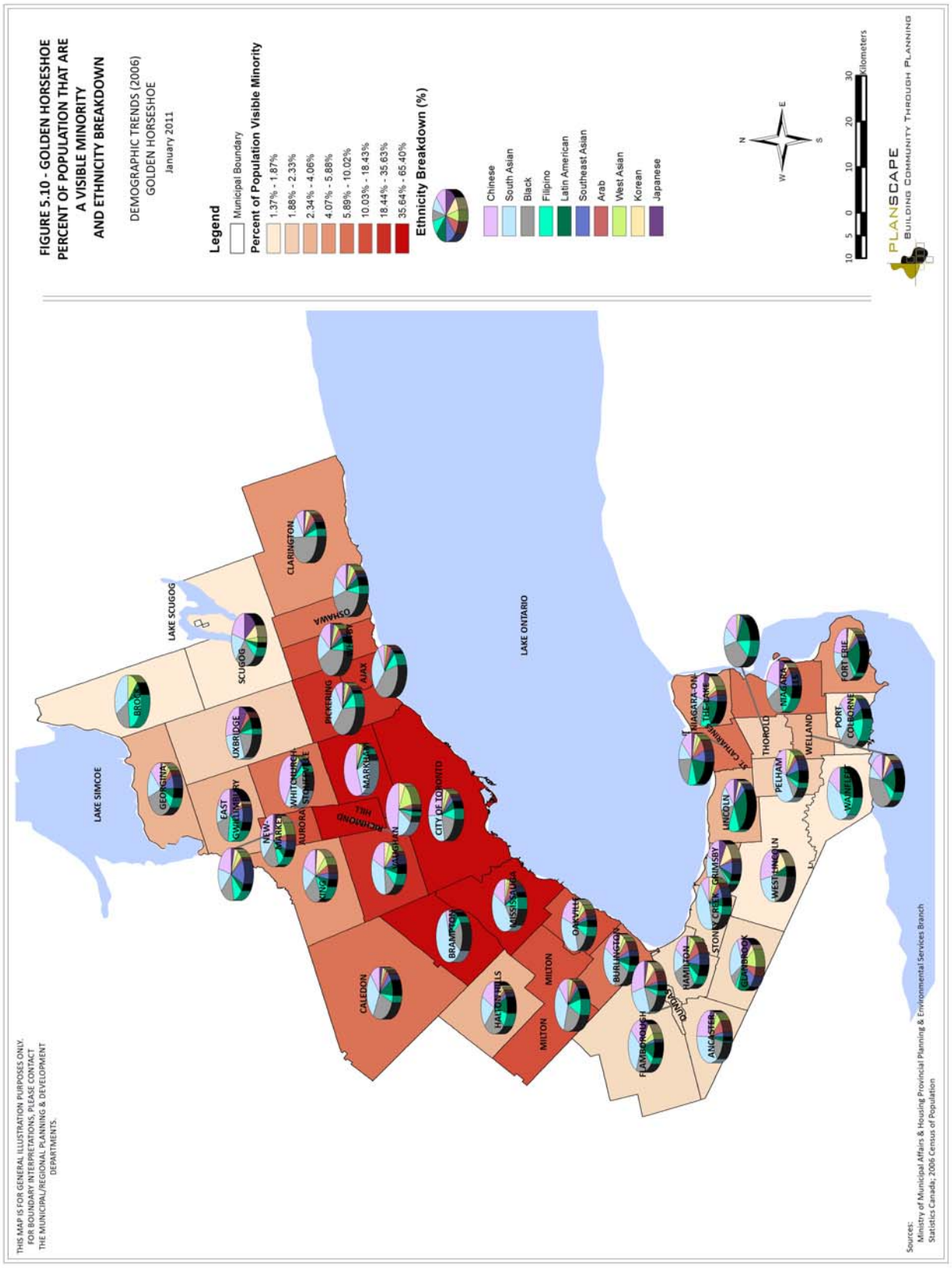
FIGURE 5.10 - GOLDEN HORSESHOE
PERCENT OF POPULATION THAT ARE
A VISIBLE MINORITY
AND ETHNICITY BREAKDOWN
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Percent of Population Visible Minority
1.37% - 1.87%
1.88% - 2.33%
2.34% - 4.06%
4.07% - 5.88%
5.89% - 10.02%
10.03% - 18.43%
18.44% - 35.63%
35.64% - 65.40%
Ethnicity Breakdown (%)
Chinese
South Asian
Black
Filipino
Latin American
Southeast Asian
Arab
West Asian
Korean
Japanese
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PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
BROCK
GEORGINA
SCUGOG
UXBRIDGE
CLARINGTON
OSHAWA
WHITBY
AJAX
PICKERING
EAST GWILLIMBURY
NEW MARKET
AURORA
WHITCHURCH STOUFFVILLE
MARKHAM
RICHMOND HILL
VAUGHAN
CITY OF TORONTO
KING
CALEDON
BRAMPTON
MISSISSAUGA
HALTON HILLS
MILTON
OAKVILLE
BURLINGTON
FLAMBOROUGH
HAMILTON
ANCASTER
DUNDAS
STONEY CREEK
GRIMSBY
LINCOLN
WEST LINCOLN
PELHAM
THOROLD
WELLAND
NIAGARA-ON-THE-LAKE
ST. CATHARINES
NIAGARA FALLS
PORT COLBORNE
PORT ERIE
WAINFLEET
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Statistics Canada; 2006 Census of Population

As shown on Figure 5.10 new immigrants tend to cluster in specific areas. Each of these clusters exhibit unique characteristics and customs and have specific demands. Understanding these clusters and the demands associated with them would assist in gearing production and focusing on niche markets.

Over time, agricultural production has responded to the demands associated with the changing ethnic profile. As demand for different food products has grown, the production profile has shifted to meet it. This is particularly apparent in vegetable production and in the increasing diversity of livestock operations. However the response to new demands is just beginning. There are many additional opportunities to expand and adjust both production and processing to take advantage of emerging markets for alternative food products.

Having specific markets concentrated in certain areas can provide an opportunity for producers to link directly with a market; thereby avoiding some of the issues associated with distribution and marketing of goods. Golden Horseshoe agri businesses can target specific groups with both product and locations. Seventy percent of food, beverage and tobacco (FBT) establishments in Canada are comprised of operations with less than 50 employees[2]. Research for this report based on 2006 statistics, indicates that the average number of employees for a food processing business in the Golden Horseshoe is 26. Smaller companies are generally well suited to responding to specific niche markets, can work closely with producers and provide opportunities to foster linkages between primary producers and consumers.

The food processing sector is rising to the challenge of meeting demands of the changing ethnic profile. Many of the newer businesses in the sector are focused on these new markets and are demonstrating strong entrepreneurial skills in linking with international markets.

To access the potential markets created by these new groups, the food and farming sector needs to be equally flexible in understanding and responding to the interests of new residents. Efforts should be made to determine where they live, define their specific food preferences, provide the products they are seeking and developing linkages to get the product to them.

In addition to understanding the ethnic profile of the Golden Horseshoe for marketing purposes, there may be opportunities to address some of the employment needs of the agriculture and agri-food sector through immigration programs. In the past, a significant percentage of new immigrants to Ontario were attracted by programs designed to bring agricultural workers to the province. This rural focus has changed and today most immigrants settle in urban areas and have urban based skills. Given the aging profile of the farm population and the ongoing need for new farmers and farm labour, the lack of immigrants with rural skills is unfortunate.

Consideration should be given to requesting governments to expand immigration programs to attract immigrants with the skills needed in the food and farming sector. Such programs should be developed in conjunction with the agricultural and agri-food sector to ensure they are properly directed and provide participants with appropriate employment and social support.

New immigrants comprise a significant component of the work force for food processing operations. With projected labour shortages for the sector[3], emphasis should be placed on protecting and expanding this source of labour.

5.4 Income Levels

As shown in **Figure 5.11**, approximately 14.2% of households in the Golden Horseshoe are low income (averaged from all regions). Comparatively, 14.7% of households in Ontario are in low income. Toronto has the highest proportion of low income households in the Golden Horseshoe with 24.5%. Connecting these low income groups to healthy affordable food sources is a major challenge that groups such as the Toronto Food Policy Council, a subcommittee of the Toronto Board of Health, have been working on in cooperation with agricultural groups, since the early 1990's. The Toronto Food Policy Council has been a leader in this area and has done excellent work in developing policies to deal with food issues. Other health units in the Golden Horseshoe are now working to encourage healthy eating and acknowledging the importance of developing food related policies to provide access to fresh and affordable local food.

The role of public health units is key to promoting healthier life styles through better eating. A closer link to the food and farming sector in addressing common issues such as understandable labeling, education on choosing and preparing healthy food, links between consumers and producers should be addressed co-operatively to foster understand and promote healthy eating habits.

Figure 5.11—Percentage of Households Living in Low Income (Before Taxes) in the Golden Horseshoe, 2006

Region	Percent Low Income
Niagara	12.0
Hamilton	18.1
Halton	8.5
York	12.7
Peel	14.5
Durham	9.4
Toronto	24.5
Golden Horseshoe Average	**14.2**

Source: Statistics Canada, 2006 Census of Population

As illustrated in **Figure 5.12**, there are some interesting patterns associated with low income distribution in the Golden Horseshoe. Low income clusters are clearly located in the urban areas of the City of Toronto and the City of Hamilton. According to **Figure 5.13** which maps median income, lower income areas also exist in rural areas such as Georgina, Brock, and a number of rural areas in Niagara Region. Certain other rural areas northwest of Toronto exhibit high levels of median income. Specifically, the municipalities of Caledon and King reported median incomes in the highest category in 2006. Hamilton is difficult to evaluate because with the amalgamation into a single tier municipality, the census data is averaged across the entire city and therefore does not reveal patterns.

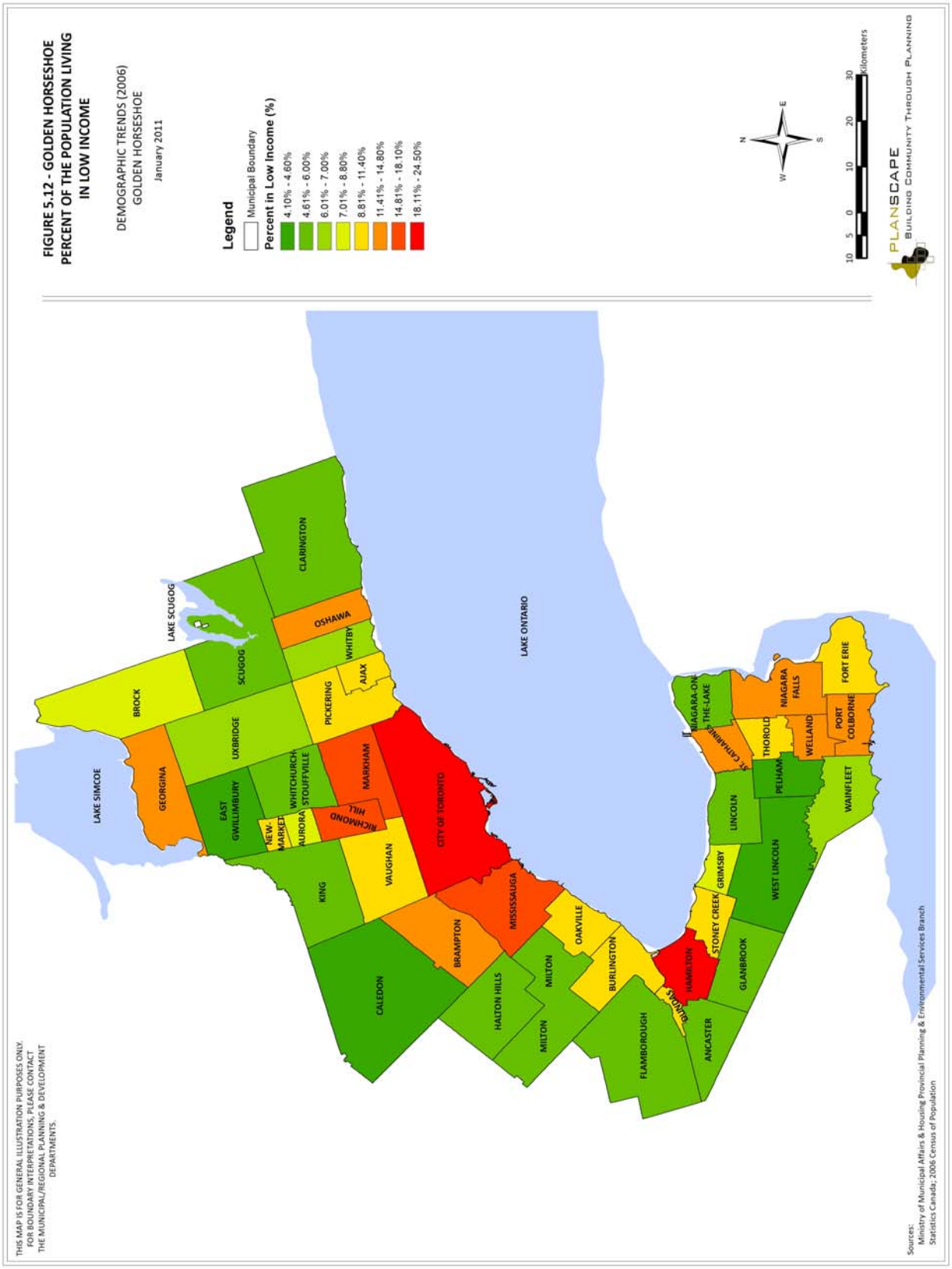
FIGURE 5.12 - GOLDEN HORSESHOE
PERCENT OF THE POPULATION LIVING IN LOW INCOME
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Percent in Low Income (%)
4.10% - 4.60%
4.61% - 6.00%
6.01% - 7.00%
7.01% - 8.80%
8.81% - 11.40%
11.41% - 14.80%
14.81% - 18.10%
18.11% - 24.50%
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PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
BROCK
GEORGINA
SCUGOG
CLARINGTON
OSHAWA
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UXBRIDGE
EAST GWILLIMBURY
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WHITCHURCH-STOUFFVILLE
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MISSISSAUGA
OAKVILLE
BURLINGTON
HALTON HILLS
MILTON
FLAMBOROUGH
HAMILTON
STONEY CREEK
GRIMSBY
LINCOLN
WEST LINCOLN
GLANBROOK
ANCASTER
NIAGARA-ON-THE-LAKE
ST. CATHARINES
THOROLD
PELHAM
WELLAND
NIAGARA FALLS
PORT COLBORNE
FORT ERIE
WAINFLEET
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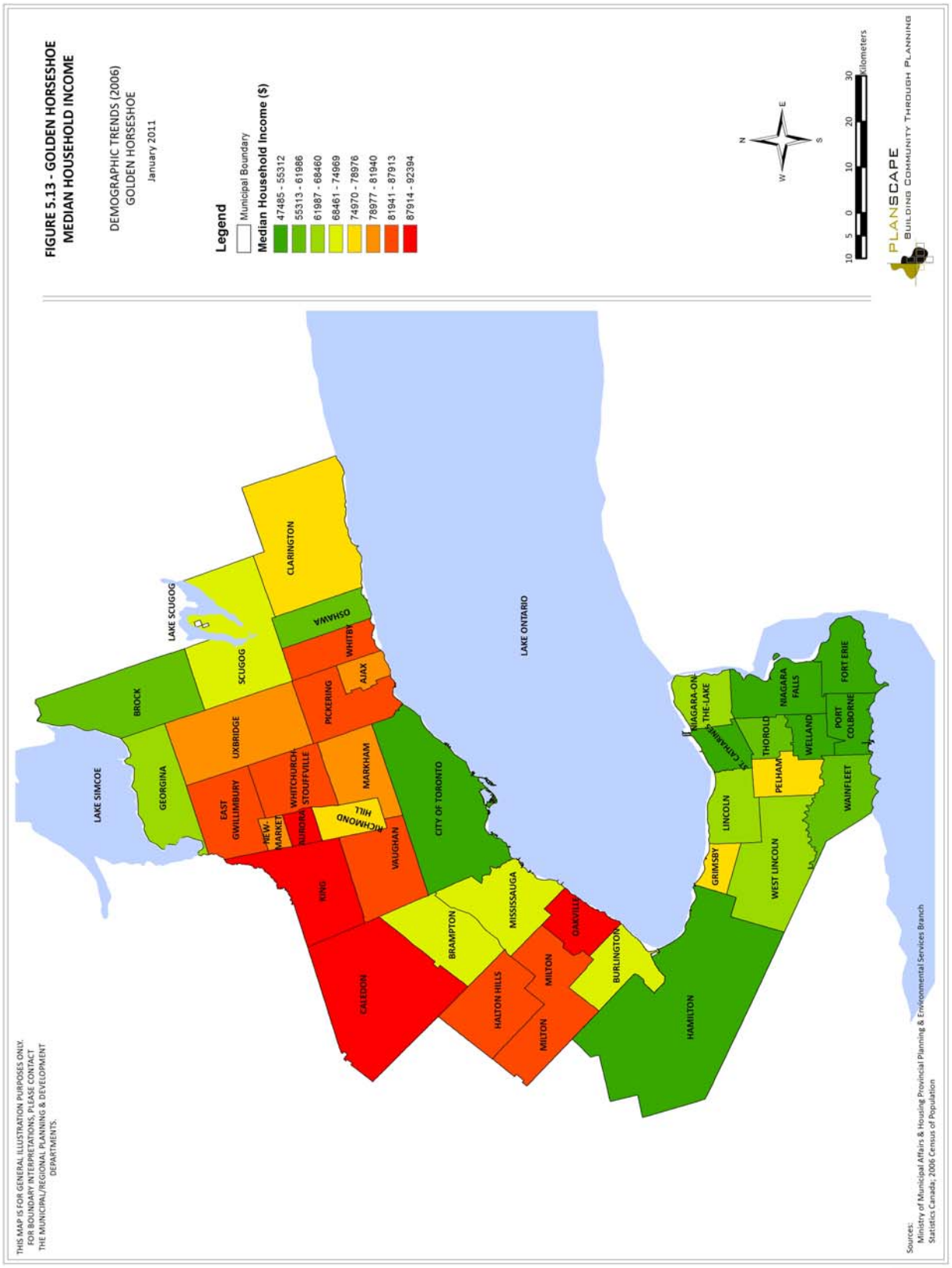
FIGURE 5.13 - GOLDEN HORSESHOE
MEDIAN HOUSEHOLD INCOME
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Median Household Income ($)
47485 - 55312
55313 - 61986
61987 - 68460
68461 - 74969
74970 - 78976
78977 - 81940
81941 - 87913
87914 - 92394
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PLANSCAPE
Building Community Through Planning
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
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CLARINGTON
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HAMILTON
NIAGARA-ON-THE-LAKE
ST. CATHARINES
GRIMSBY
LINCOLN
WEST LINCOLN
PELHAM
THOROLD
WELLAND
NIAGARA FALLS
PORT COLBORNE
FORT ERIE
WAINFLEET
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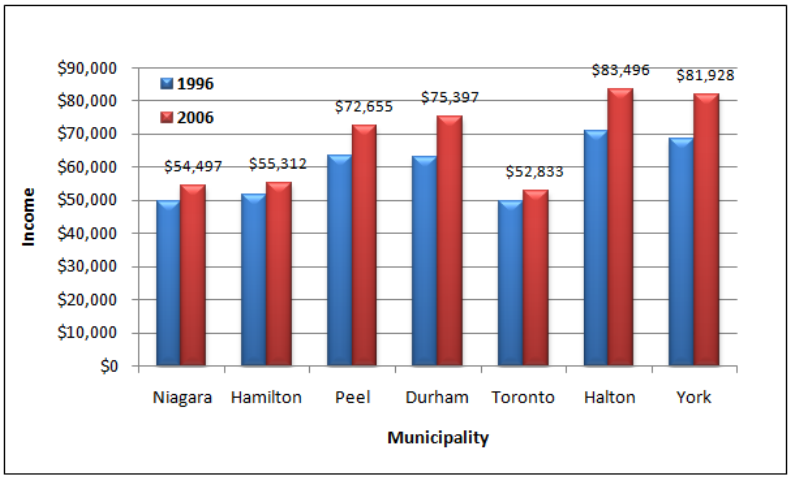
As shown in **Figure 5.14**, between 1996 and 2006, Halton recorded the largest increase in median household income in the Golden Horseshoe. It increased by $12,541 over the ten year period.

Figure 5.14—Median Household Income in Golden Horseshoe Municipalities



Source: Statistics Canada, 1996 and 2006 Census of Population

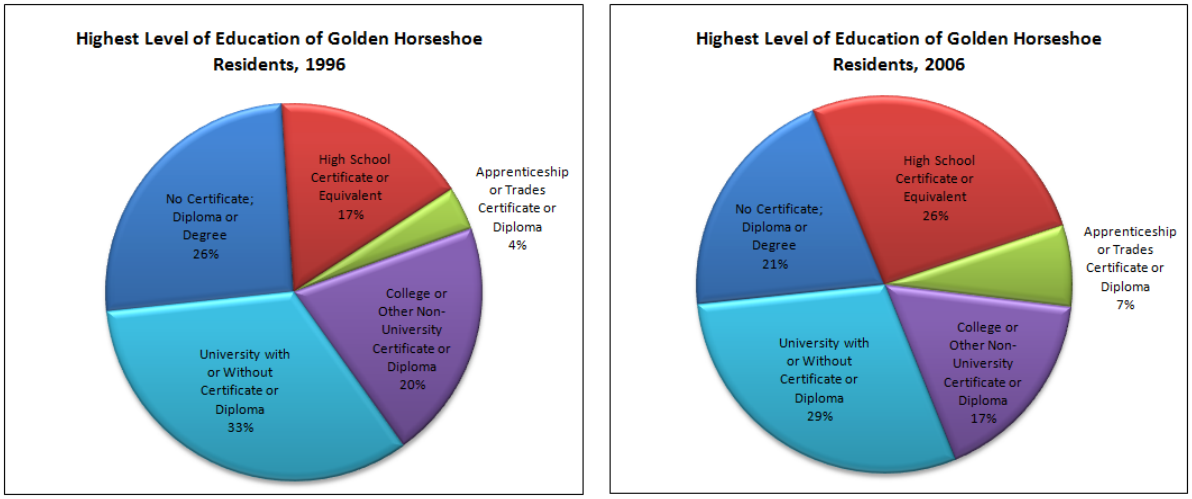
Higher levels of income are an advantage to food and farming businesses. Findings from the Economic Research Service[4] show that higher incomes drive up total food expenditures through increases in spending per unit versus increases in units purchased. Therefore, more of the extra consumer dollar will go to "quality" rather than to quantity. More prosperous consumers prefer select cuts of meat, value-added products like lamb chops trimmed and dressed, pre-marinated fish, single-serving lunchbox snacks, and prewashed and bagged salad greens. Previous studies have found that as income rises, consumers spend more on expensive fresh foods, prepared foods, and dining out.[5] Producers and processors need to be able to connect with and capitalize on the high income consumers. Where higher income levels are found in rural municipalities there may be opportunities for smaller processors to set up operations or for producers to connect directly with consumers. In urban areas the expansion of farmer's market will help but connections between agri-food businesses and farmers are also important.

5.5 Education Levels

Figures 5.15a & b illustrate the breakdown of education levels that characterize the Golden Horseshoe in 1996 and 2006. Overall, the level of education of residents in the Golden Horseshoe is rising. Between 1996 and 2006, the percentage of the population without a certificate, dipolma or degree has declined from 26% to 21% and the proportion of those with a high school certificate or equivalent has increased from 17% to 26%.

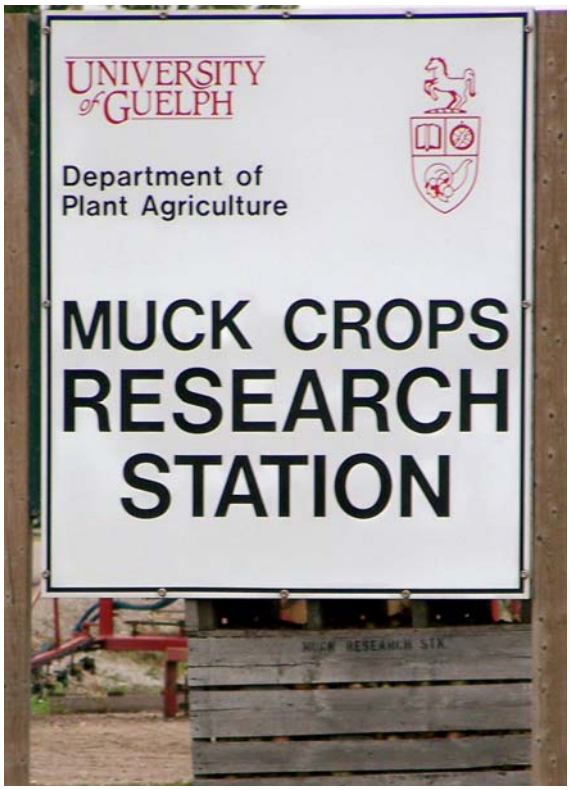
In 2006, the number of residents with both College (or other Non-University certificate or diploma) and University (with or without a certificate or diploma) increased by approximately 144,000 and 335,000 respectively compared to 1996 levels. However, as a percentage of the entire population, both of those categories declined 4% and 3% between 1996 and 2006. Interestingly, those reporting apprenticeships or trades certificates or diplomas increased from 4% to 7% over the period 1996 to 2006.

Figure 5.15 a & b—Highest Level of Education in the Golden Horseshoe



Source: Statistics Canada, 1996 and 2006 Census of Population

The distribution of individuals in the Golden Horseshoe with College or University education (including some College or University) is shown in **Figure 5.16**. In 2006, municipalities with the highest proportion of College or University educated residents were Oakville (56%), Ancaster (55%), Richmond Hill (55%), Aurora (53%), and Dundas (53%). Areas with the least proportion of College or University educated residents were Georgina (31%), Brock (30%), West Lincoln (27%) and Port Colborne (31%). Also of note is an overall lower level of College or University educated individuals in the eastern portion of Durham Region and most areas with Niagara Region.



Research links higher levels of education with a shift in demand for food products. The demand for a variety of high quality, fresh local food rises with level of education resulting in an increased market for high end and value-added products. Unless local producers

and processors can respond to this demand, the increase in the share of food dollars is likely to go to imports rather than to local product. Solutions to this include diversifying into high-quality or specialty crops that may carry price premiums, such as tofu-grade soybeans and vine-ripened tomatoes, and developing branded products that are more readily linked by the consumer with a particular food company, production region, or even individual farm.[6] Opportunities should be created to link consumers with local producers. Opportunities exist for smaller processers to link with local producers to offer specialized product for a diverse and discerning market. With higher levels of education there is often more concern about the food we eat, how far it travels to market, who is growing it and the process by which it is produced. A local food system responds to these concerns and, in doing so, provides access to a desirable product.

Aside from the benefits of having access to a large, well educated market for products, the other benefit of the higher education levels exhibited by residents of the Golden Horseshoe is the access to skilled labour. As the agricultural and the agri-food sectors become more sophisticated, access to research and development resources and a skilled labour force will be key to success.

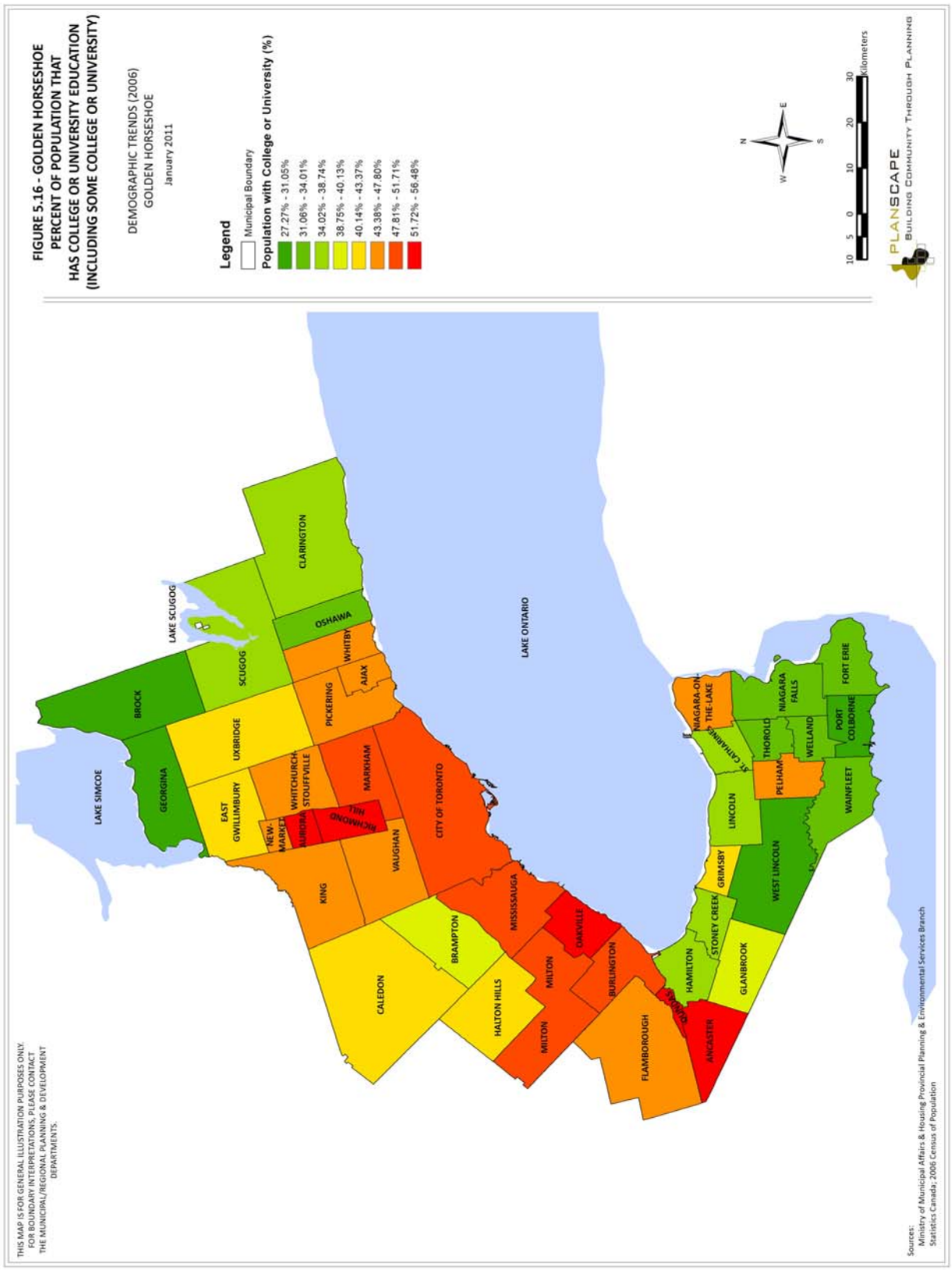


FIGURE 5.16 - GOLDEN HORSESHOE
PERCENT OF POPULATION THAT
HAS COLLEGE OR UNIVERSITY EDUCATION
(INCLUDING SOME COLLEGE OR UNIVERSITY)
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Population with College or University (%)
27.27% - 31.05%
31.06% - 34.01%
34.02% - 38.74%
38.75% - 40.13%
40.14% - 43.37%
43.38% - 47.80%
47.81% - 51.71%
51.72% - 56.48%
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PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
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GEORGINA
SCUGOG
CLARINGTON
OSHAWA
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EAST GWILLIMBURY
WHITCHURCH-STOUFFVILLE
MARKHAM
RICHMOND HILL
AURORA
NEWMARKET
KING
VAUGHAN
CITY OF TORONTO
CALEDON
BRAMPTON
MISSISSAUGA
OAKVILLE
HALTON HILLS
MILTON
BURLINGTON
FLAMBOROUGH
DUNDAS
HAMILTON
ANCASTER
STONEY CREEK
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GLANBROOK
WEST LINCOLN
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PELHAM
ST. CATHARINES
NIAGARA-ON-THE-LAKE
THOROLD
NIAGARA FALLS
WELLAND
PORT COLBORNE
FORT ERIE
WAINFLEET
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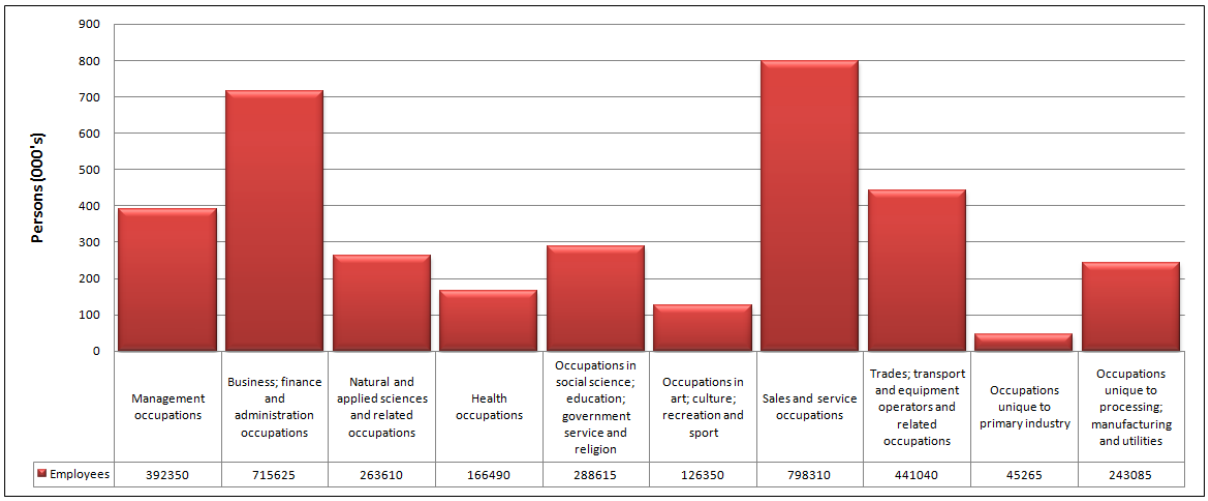
5.6 Employment

As shown in **Figure 5.17**, the four leading employment categories in the Golden Horseshoe in 2006, were sales and service occupations; business, finance and administration occupations; trades, transport, equipment operators and related occupations; and management occupations. Occupations unique to the primary industry such as agriculture only accounted for 1.3% of employment in the Golden Horseshoe in 2006. However, when the food processing and retailing aspects of the agri-food sector are considered, it becomes apparent that there are significant employment opportunities in the sector.

Figure 5.17—Employment Categories in the Golden Horseshoe



Source: Statistics Canada, 2006 Census of Population

In 2006, Ontario accounted for 33.5% of Canadian employment in agriculture and food processing, and 34.2% of food processing GDP.[7] It was home to the second largest food processing cluster in North America[8], the majority of which is located in the Golden Horseshoe.

The demographic profile compiled for this study confirmed that in 2006, employment levels in the rural area of the Golden Horseshoe were very good. **Figure 5.18** confirms that the areas with the highest rates of unemployment were in the urban areas of the City of Toronto and Oshawa, but high unemployment was also present in the rural areas of Welland and Port Colborne.

The nature of employment issues in the agriculture and agri-food sectors are diverse. In primary agriculture, major issues that face the sector range from the aging farm population and the lack of young farmers entering the business, to difficulties in finding farm labourers. The issue of replacing the aging farm population is complicated by the cost of setting up in farming. Even if there are interested candidates, unless they are part of an existing farm operation, the cost of entry can be prohibitive. Mentoring programs and farm labour programs that link prospective farmers with established farmers may be a solution to help overcome this challenge.

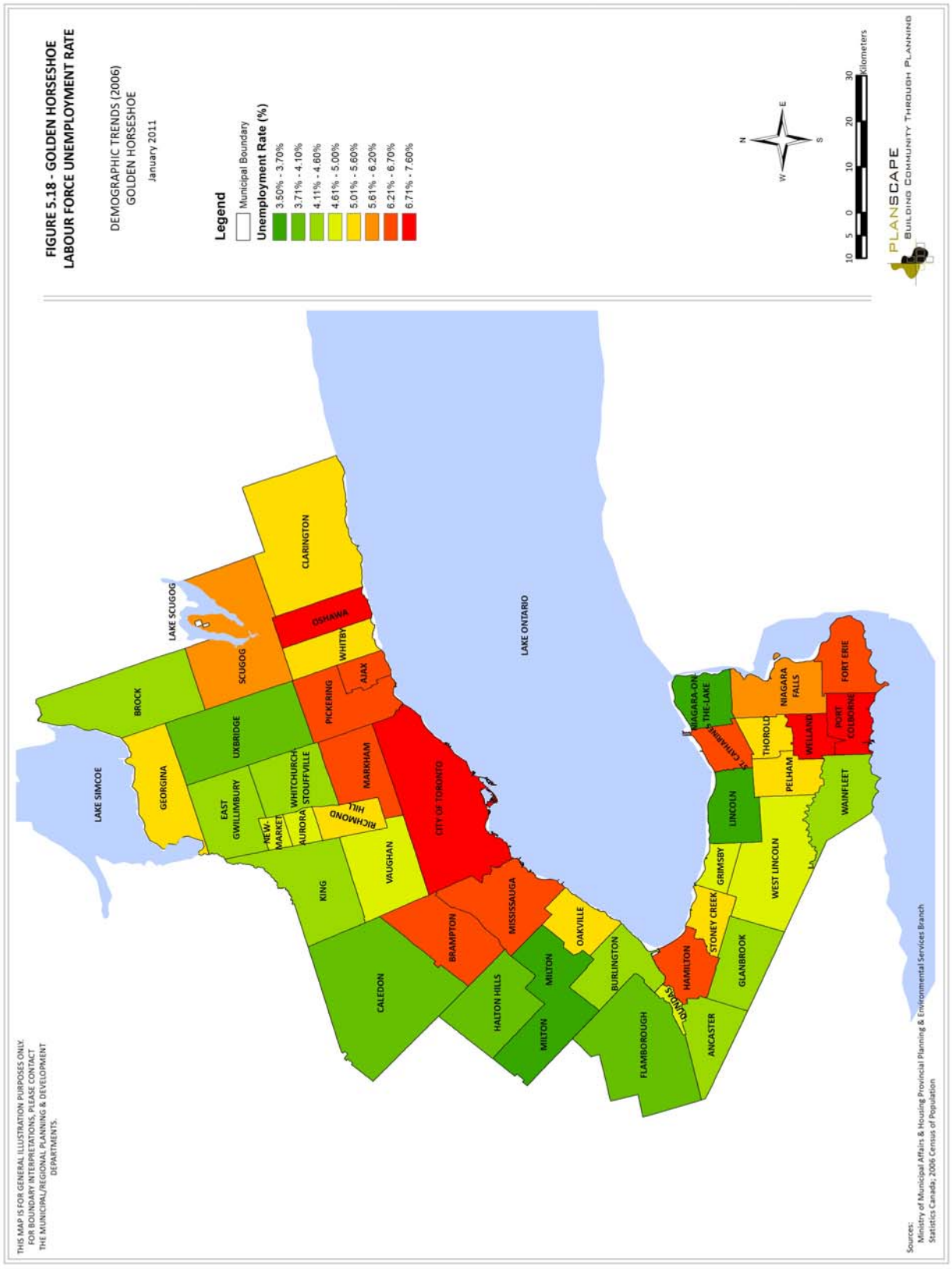


FIGURE 5.18 - GOLDEN HORSESHOE
LABOUR FORCE UNEMPLOYMENT RATE
DEMOGRAPHIC TRENDS (2006)
GOLDEN HORSESHOE
January 2011
Legend
Municipal Boundary
Unemployment Rate (%)
3.50% - 3.70%
3.71% - 4.10%
4.11% - 4.60%
4.61% - 5.00%
5.01% - 5.60%
5.61% - 6.20%
6.21% - 6.70%
6.71% - 7.60%
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10 5 0 10 20 30 Kilometers
PLANSCAPE
BUILDING COMMUNITY THROUGH PLANNING
LAKE ONTARIO
LAKE SIMCOE
LAKE SCUGOG
CLARINGTON
OSHAWA
WHITBY
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PICKERING
SCUGOG
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WHITCHURCH-STOUFFVILLE
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CITY OF TORONTO
CALEDON
BRAMPTON
MISSISSAUGA
OAKVILLE
HALTON HILLS
MILTON
BURLINGTON
FLAMBOROUGH
HAMILTON
DUNDAS
ANCASTER
STONEY CREEK
GLANBROOK
GRIMSBY
WEST LINCOLN
LINCOLN
PELHAM
THOROLD
WELLAND
PORT COLBORNE
NIAGARA FALLS
FORT ERIE
ST. CATHARINES
NIAGARA-ON-THE-LAKE
WAINFLEET
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DEPARTMENTS.
Sources:
Ministry of Municipal Affairs & Housing Provincial Planning & Environmental Services Branch
Statistics Canada; 2006 Census of Population

Attracting farm labourers is also an issue. Attracting workers from urban areas is complicated by the lack of relevant skills and challenges with transporting the labour from the urban centres to the farm. Other challenges lay in the fact that the work is often physically demanding, there are times when considerable overtime is required and the employment locations are physically remote. Access by transit is impossible and workers at this level tend not to have access to an automobile. **Figure 5.18** which illustrates areas of high unemployment in the Golden Horseshoe, underscores the disconnect that exists between unemployment and agriculture. The areas where the labour is needed are physically remote from areas where workers may be available. This issue has been addressed in labour intensive sectors such as horticulture, through programs to bring foreign workers to Ontario to work on farms.

For primary production, the seasonal agricultural worker program is designed to address the difficulty Ontario producers, particularly in labour intensive sectors such as fruit, vegetable, greenhouse and nursery production, have in getting farm labour. However, these are not immigration programs to attract permanent residents; they are seasonal programs with the workers brought into Ontario on a temporary basis to supplement the resident workforce.

The agri-food sector has equally challenging employment issues. A report conducted of the Alliance of Ontario Food Processors concluded:

> *Ontario's food processing industry is a vital part of the Province's economy. This industrial sector accounts for nearly 100,000 manufacturing jobs and has an annual payroll in excess of $3 billion. The food processing industry is diverse, both in kinds of firms and the nature of their production. (…) Many are experiencing serious difficulty recruiting and retaining workers. In the next ten years, all firms regardless of their sub sector, regional location, ownership or size are expected to share the challenge of finding sufficient workers."10*

The food processing sector is not geographically constrained. Balancing location factors such as proximity to supply versus proximity to labour could help in attracting a work force. However to make the move from an urban area to a more rural area food processing operations need to have a certain scale of operation to address issues related to market and access to labour. As noted in a study of trends in the industry by the City of Toronto:

> *The Toronto market is the imperative to remain within the City, which is emphasized when the product is "fresh". As in any cosmopolitan city, specialty food firms are and will continue to flourish due to a demand for diverse new products many of which are fresh. These firms need to be in e core of the City to be able to service clients quickly and directly. Those in the gourmet products food service businesses have to be able to react within minutes.*

Existing employees are important to the growth in the smaller firms. The more handcrafted or customized the product, the greater the reliance upon experience and skilled employees and the more likely the company will remain in Toronto to capitalize on that "investment" in experience. There is also a large pool of potential employees in Toronto.

For large firms with markets beyond the City of Toronto or the Golden Horseshoe location is considered differently. These firms are looking for locations with access to national and international transportation links but also need access to large pools of labour. The reality is, as stated earlier, the food and farming sector is incredibly diverse so no one solution fits all. Any strategy must acknowledge this diversity and be flexible and wide ranging in responding to the requirements of all members of the cluster.

Other steps the industry has identified to manage employment issues include profiling the sector as a viable employment and career opportunity, development of post secondary programs to train workers and providing employers with tools to attract, retain and train workers. The recent opening of the Institute for Food Processing Technology at Conestoga College is an important step in providing workers for this growing sector. In commenting on the establishment of the Institute, that was a result of a study funded by the Agricultural Adaptation Council of Canada, the Alliance acknowledged the linkages the sector has and its importance to the provincial economy.

The multi-phase project continues. The end results provide benefits well beyond the food and beverage processing sector. A competitive and successful food and beverage processing sector is important for Ontario farmers that rely on this sector to process more than 70% of what is grown and produced, and to rural communities that depend upon this sector for employment and taxation. As a mainstay of the manufacturing sector in this province, a competitive and sustainable food and beverage processing industry is critical to the province's well-being. The impact of doing nothing to address the skills shortage in the food and beverage processing sector will undermine the sector's ability to be competitive and hence, have a negative impact upon farmers, rural communities and the province.

The Golden Horseshoe, with its extensive pool of available labour, has an advantage in addressing potential employment issues. Employment programs need to be geared to Canadian residents as well as to new immigrants. As the profile of existing farmers and food processing workers ages, younger replacements are required. In addition to attracting immigrants interested in primary production there should also be programs to attract Canadian workers to agriculturally-related vocations and jobs in other components of the food and farming cluster. .

5.7 Consumer Trends

Although consumer food choices are complex, there are a number of recent trends that have emerged in Canada and many developed countries throughout the world. Today's consumer seeks greater food variety, and foods that are healthy, convenient and environmentally friendly. These trends have mirrored current news and health reports of the day but also reflect changes in lifestyle, demographics, and work habits.

As a result of growing health awareness, attitudes are shifting towards healthier diet choices. Label reading has become more common and consumers are more concerned with specific food components such as saturated fats, cholesterol, sodium, sugar, fibre, and protein. Consumers have become much more knowledgeable regarding nutrition and are more aware of food related health issues such as obesity, heart disease, diabetes and cancer. As this consumer consciousness translates to changing behaviors and consumption patterns, concern with reducing certain foods and or food ingredients is likely to diminish. Over time, avoiding trans-fats, salts, or refined carbohydrates, or eating more fruit, vegetables, fibre and yogurt will simply become a part of the consumers' more permanent shopping list.

In terms of consumer spending, healthy eating has been and will continue to be focused on a few key areas. The most evident of these is the increased consumption of fruits and vegetables. In Canada, overall fruit and vegetable consumption is expected to increase by 5% and 4% respectively to the year 2020.[12] Increased fruits and vegetables consumption is thought to serve an array of important functions for the body and according to the Canadian Cancer Society, eating fruits and vegetables can reduce the incidence of cancer by more than 20%.[13] The growth in fruits and vegetables is fuelled by the focus on healthier eating as well as the recognition of many fruits and vegetables as high fibre natural vitamin source, or functional food with a role in disease prevention. Improved year round availability and acceptance of fruits and vegetables as convenient snacks also will support sales growth. Other key trends related to fruits and vegetables are: continued convenience options and snack products, (including fresh-cut, value-added dips and bagged produce); expanded distribution of snack products for vending machines, schools, concessions, airlines and fast-food outlets; frozen produce options with particular attention to maintaining quality and crispness; imported exotics to meet ethnic demand; organics; fresh / local branding and private labels; and lower sodium vegetable juices or lower sugar fruit juices.[14]

Another consumer trend in healthy eating is towards products that combine nutrition with pharmaceuticals. These products called nutraceuticals, extract, isolate or purify food components that have demonstrated health benefits or disease prevention. Nutraceuticals offer the primary sector excellent opportunities for developing new plant varieties with desired nutritional qualities. In addition, many opportunities exist in research and development, processing and even packaging to develop nutraceutical products.

Environmental sustainability is becoming a consideration in consumer food products as well. Organic products are raised, grown, stored, and/or processed without the use of synthetically- produced chemicals, pesticides, growth hormones or growth regulators. Farmers who produce food according to a set of standards, undergo evaluation by other certified growers, and pass a yearly inspection by a trained independent inspector that labels the products as certified organic. Organic products promote soil health, biodiversity, low stress treatment of animals and sound environmental practices. Although the purchasing of organic products is becoming main stream, the profile of heavier purchasers has been described as: female, better educated, higher income, and somewhat younger than the average consumer. Opportunities in organics include expansion from the traditional fresh fruits, vegetables and grain products to meat, dairy, prepared convenience foods, and snack items. Private label "organic" branding will also evolve as traditional grocers fight to retain market share of their higher margin products.

Today's consumer demands a great deal more food variety than in the past. Canadians are increasingly exposed to different cultures through work, school, friendships, mixed marriage, and travel, and attitudes towards trying new foods are becoming more open. Both diversification and fusion of ethnic foods have led to increased consumer variety. Diversification has led to the rise of distinct foods, specialty stores, and cuisine-related products. Fusion has blended foods and dishes to create new tastes for evolving consumer tastes. Products that are able to successfully tap into new or emerging tastes will have great potential for growth in the future.

Convenience is and will continue to be a major motivator with regard to consumer demand for food. Shopping and eating habits have progressively become sporadic; meal planning cycles have become shorter, and snacking has increasingly replaced meals. The cause of increasing food convenience stems from the fact that traditional family dining has diminished and work habits have steadily decreased the amount of time for eating. The consumer of tomorrow will require food to be even more convenient allowing less food prep and cooking time. However, recent studies are showing that consumer attitudes towards convenience are secondary to nutrition and taste. The reality is that with the maturing of the prepared foods category, consumers are simply expecting that great tasting, nutritional foods will be available in convenient forms. Therefore the frozen and packaged food sector will be faced with challenges while fresh and convenient options see growth. This could include healthy choices at food outlets such as kiosks, street vendors, drive-throughs, casual dining, home-delivery, and deli's.

Lastly, food safety is a growing issue. Consumers want to be sure that the food they eat is healthy and safe. Canada with its reputation for consistent regulation and rigorous standards has an advantage in capitalizing on this trend. While Canada may not be able to compete with the world on price, it can become a leader in the provision of safe food.

5.8 Summary and Conclusions

The demographic profile prepared for the Golden Horseshoe agricultural sector underscores a number of challenges that should be addressed as part of the agriculture and agri-food strategy.

The Golden Horseshoe is a rapidly growing area undergoing a comprehensive planning process to stipulate where the growth will occur and in what form it will be accommodated. When this process is completed, additional existing agricultural areas will be removed from production but there will be more certainty about what areas will be available for production to 2031 and beyond. If circumstances exist to allow the remaining operators to efficiently and profitably carry on in business, this could stabilize primary production in the Golden Horseshoe. The strategy should include tasks that focus on enabling the remaining agricultural areas to prosper and to assist new operators to enter the sector. However it will be essential for businesses to locate strategically so they have access to both labour and market, a task that can be challenging given the cost of establishing or expanding in densely populated areas.

While the rapid pace of growth in the Golden Horseshoe creates challenges, it also creates opportunities for both primary production and the agri-food industry. In planning for the future, businesses can rely on a sophisticated, diverse and expanding market for their goods and a large population base for labour.

The market for organic and local products tends to be driven by age and income. Given that the 20 to 44 year old age group is clustered in the more urbanized area of the Golden Horseshoe and that the highest density of population is located in that area, producers need to create linkages, provide targeted products and establish retail outlets that connect with and take advantage of this market.

Toronto has the highest proportion of people living in low income within the study area. Connecting these low income groups to healthy affordable food sources is an interesting challenge that is being faced by public health agencies in the Golden Horseshoe. Farmers and food processors can play a role in supporting programs that will ensure healthy and accessible food programs for low income families.

Settlement patterns of new immigrants tend to be clusters, based on country of origin. Each of these clusters will exhibit unique characteristics and customs and have specific demands. Understanding these clusters and the demands associated with them could assist in gearing food production to new markets and focusing on niche markets.

The higher income levels and cultural diversity of the Golden Horseshoe are factors that create a strong market for a diversity of food and other agricultural products.

A very high proportion of food, beverage and tobacco (FBT) establishments in the Golden Horseshoe are comprised of operations with less than 50 employees. These smaller companies are well suited to responding to specific niche markets and offer an opportunity for direct links with primary producers.

Given the aging profile of the farm population and the ongoing need for new farmers and farm labour, consideration should be given to programs to attract immigrants with agricultural skills. Such programs should provide support to access agriculturally related employment accompanied by social programs to allow new arrivals to adjust to rural communities.

The educational system should deliver programs that educate consumers to make informed choices and enjoy healthy diets; to understand and appreciate modern agriculture; and to introduce them to the interesting opportunities associated with agriculture and the agri-food business.

Although there are areas of relatively high unemployment in the Golden Horseshoe, they tend to be located in urban areas. Accessing available labour, ensuring the skills to work in the agricultural and agri-food businesses are being taught, and making candidates aware of available employment opportunities can be complicated by the urban/rural divide.

The Golden Horseshoe is a dynamic, fast growing region of contrasts. The settlement patterns reflect a mosaic of age, ethnic background, education and income. However one thing all residents of the area have in common is a need for the products of the food and farming system. Understanding the patterns of the Golden Horseshoe and using them to the benefit of the industry is essential to its ongoing prosperity.

Although consumer food choices are complex, there are a number of recent trends that have emerged in Canada and many developed countries throughout the world. Today's consumer seeks greater food variety, and foods that are healthy, convenient and environmentally friendly. These trends have mirrored current news and health reports of the day but also reflect changes in lifestyle, demographics, and work habits.

1 E-comics Consulting & Jayeff Partners, "Workforce Ahead" A Labour Study of Ontario's Food Processing Industry". Alliance of Ontario Food Processors, 2005.

2 Agriculture and Agri-Food Canada "An Overview of the Canadian Agriculture and Agri-Food System 2008" Research and Analysis Directorate, Strategic Policy Branch, Agriculture and Agri-Food Canada, Ottawa, June 2008.

3 E-Economics Consulting and Jayeff Partners, "**Workforce Ahead" A Labour Study of Ontario's Food Processing Industry.** prepared for The Alliance of Ontario Food Processors. 2005.

4 The Economic Research Service is a primary source of economic information and research in the U.S. Department of Agriculture.

5 http://www.nationalatlas.gov/articles/agriculture/a_consumerAG.html

6 http://www.nationalatlas.gov/articles/agriculture/a_consumerAG.html

7 Agriculture and Agri-Food Canada "An Overview of the Canadian Agriculture and Agri-Food System 2008" Research and Analysis Directorate, Strategic Policy Branch, Agriculture and Agri-Food Canada, Ottawa, June 2008. Pg. 17

8 Alliance of Food Processors www.aofp.ca

9 WCM Consulting, Food Industry Outlook, A Study of Food Industry Growth Trends in Toronto" August 2002. Pg 37.

10 http://www.aofp.ca/Projects/ontario-institute.aspx January 2010

11

12

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Chapter 6 - Physical Attributes

There is a combination of factors that contribute to the Golden Horseshoe's ongoing success as a food and farming cluster. In this chapter some of those attributes and opportunities for building on them are discussed.

6.1 The Land Base

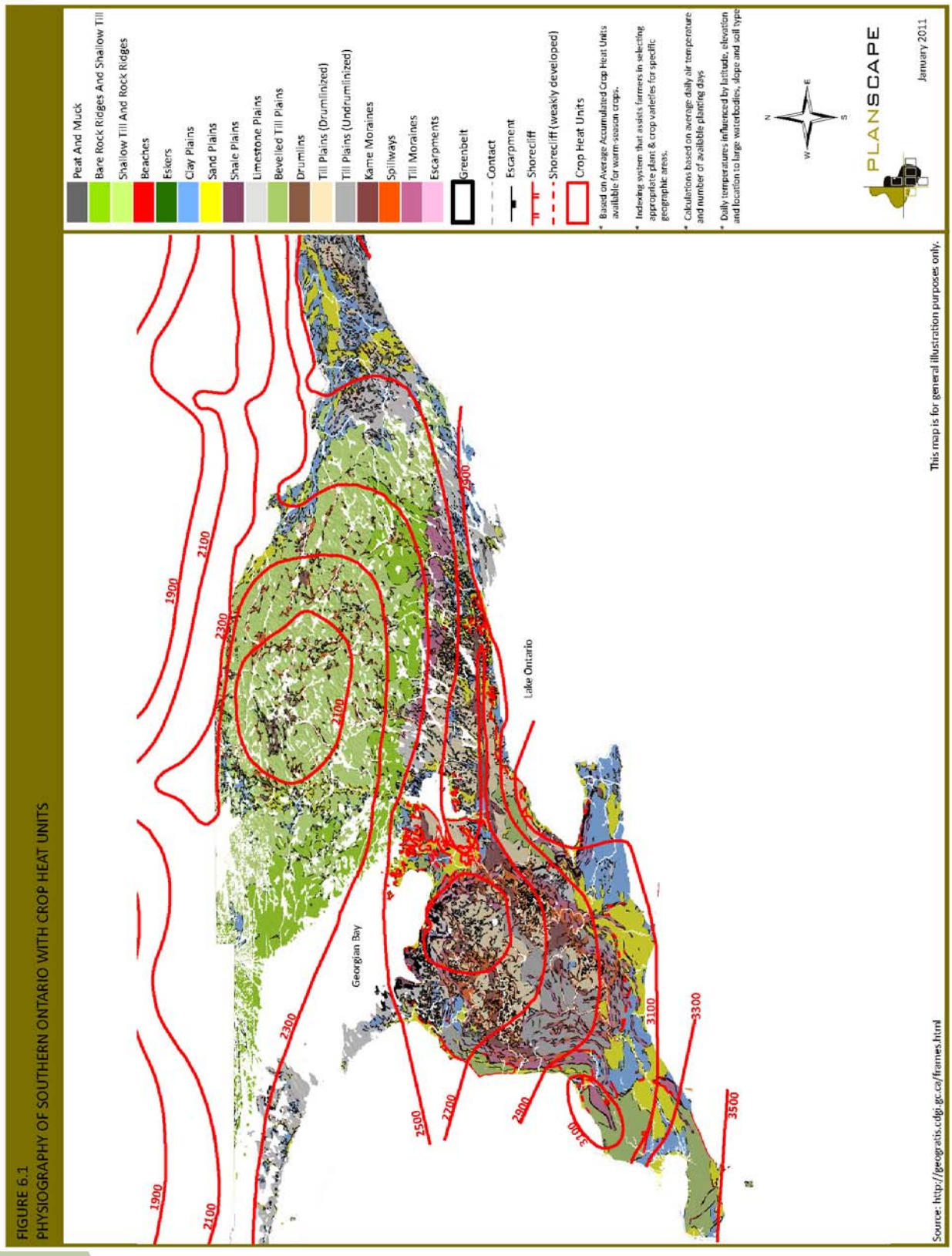
A combination of physiography, soil capability and climate make the Golden Horseshoe a highly productive agriculture area. It was this productivity that attracted and retained settlers starting with the native Canadians; followed by European settlers. Proximity to the Great Lakes provided transportation, access to water and a moderate climate. The physiography of the area (as a former lake bed) provided rich and abundant soils.

Climate is key to productivity and to establishing the crop profile. Much can be done to improve soils but climate is fixed. **Figure 6.1** depicts crop heat units, based on average daily air temperatures across the province and confirms that the Golden Horseshoe is home to some of the highest values in Canada. Higher heat units support higher productivity and a longer growing season. The region's benevolent climate supports production of crops such as tender fruit that cannot be grown elsewhere in the province.

Figure 6.2 maps soil classifications for the Golden Horseshoe. In Canada, agricultural lands are ranked using the Canada Land Inventory (CLI) system, from Class 1 to Class 7. Class 1, 2 and 3 are considered prime for agriculture. A review of **Figure 6.2** confirms that the majority of the land base in the Golden Horseshoe with the exception of the Oak Ridges Moraine and portions of the Niagara Escarpment, which are constrained by topography, qualify as prime agricultural land.

The Golden Horseshoe is home to the only two specialty crop areas in the province, the Niagara tender fruit and grape lands and the Holland Marsh. The areas subject to the designation are mapped on **Figures 6.3 and 6.4**.

FIGURE 6.1
PHYSIOGRAPHY OF SOUTHERN ONTARIO WITH CROP HEAT UNITS



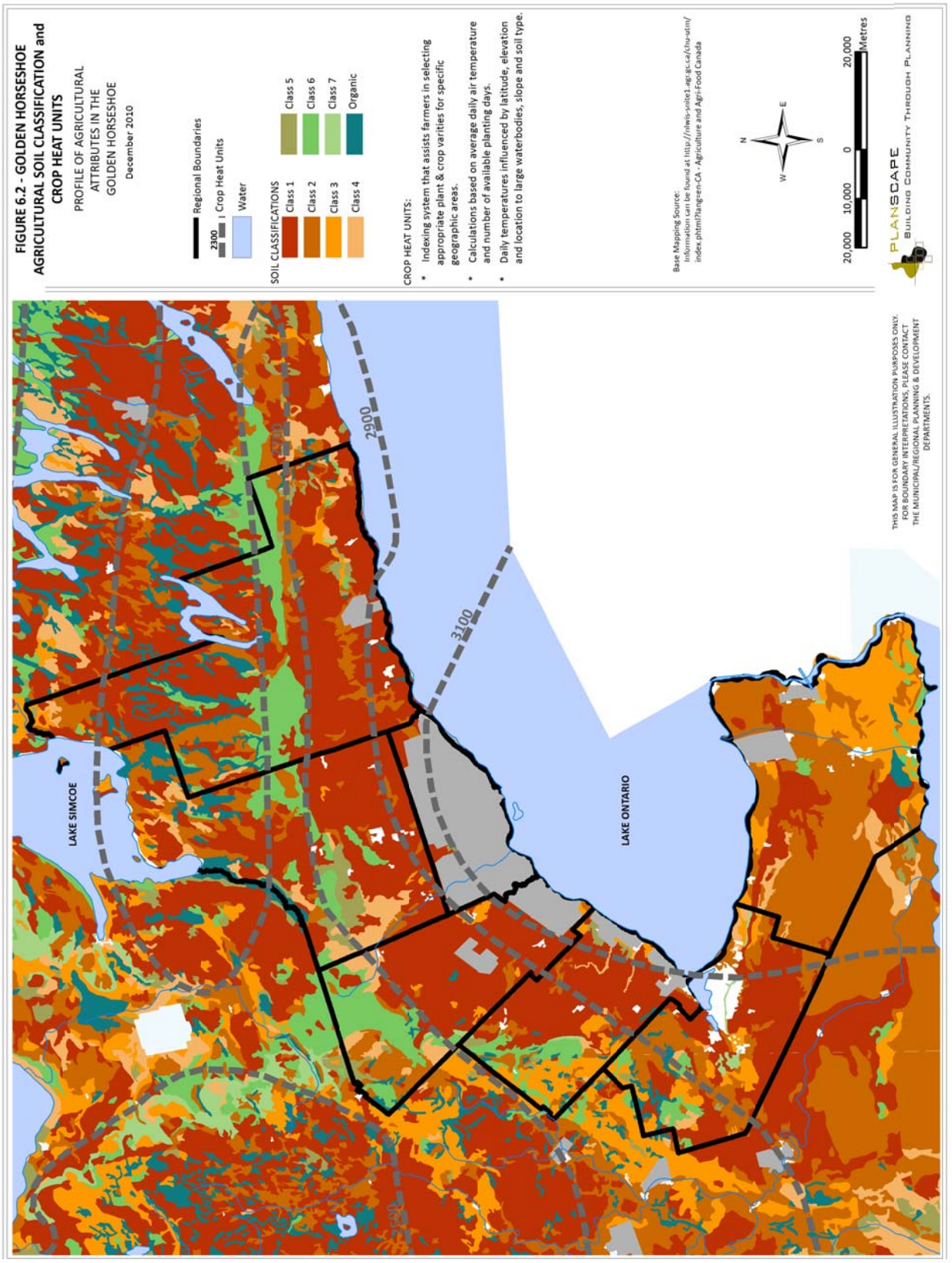


FIGURE 6.2 - GOLDEN HORSESHOE
AGRICULTURAL SOIL CLASSIFICATION and
CROP HEAT UNITS
PROFILE OF AGRICULTURAL
ATTRIBUTES IN THE
GOLDEN HORSESHOE
December 2010
Regional Boundaries
2300 Crop Heat Units
Water
SOIL CLASSIFICATIONS
Class 1
Class 2
Class 3
Class 4
Class 5
Class 6
Class 7
Organic
CROP HEAT UNITS:
Indexing system that assists farmers in selecting appropriate plant & crop varities for specific geographic areas.
Calculations based on average daily air temperature and number of available planting days.
Daily temperatures influenced by latitude, elevation and location to large waterbodies, slope and soil type.
Base Mapping Source:
Information can be found at http://ntwis-snite1.agr.gc.ca/ktw-atnr/index.phtml?lang=en-CA - Agriculture and Agri-Food Canada
N
E
S
W
20,000 10,000 0 20,000
Metres
PLANSCAPE
Building Community Through Planning
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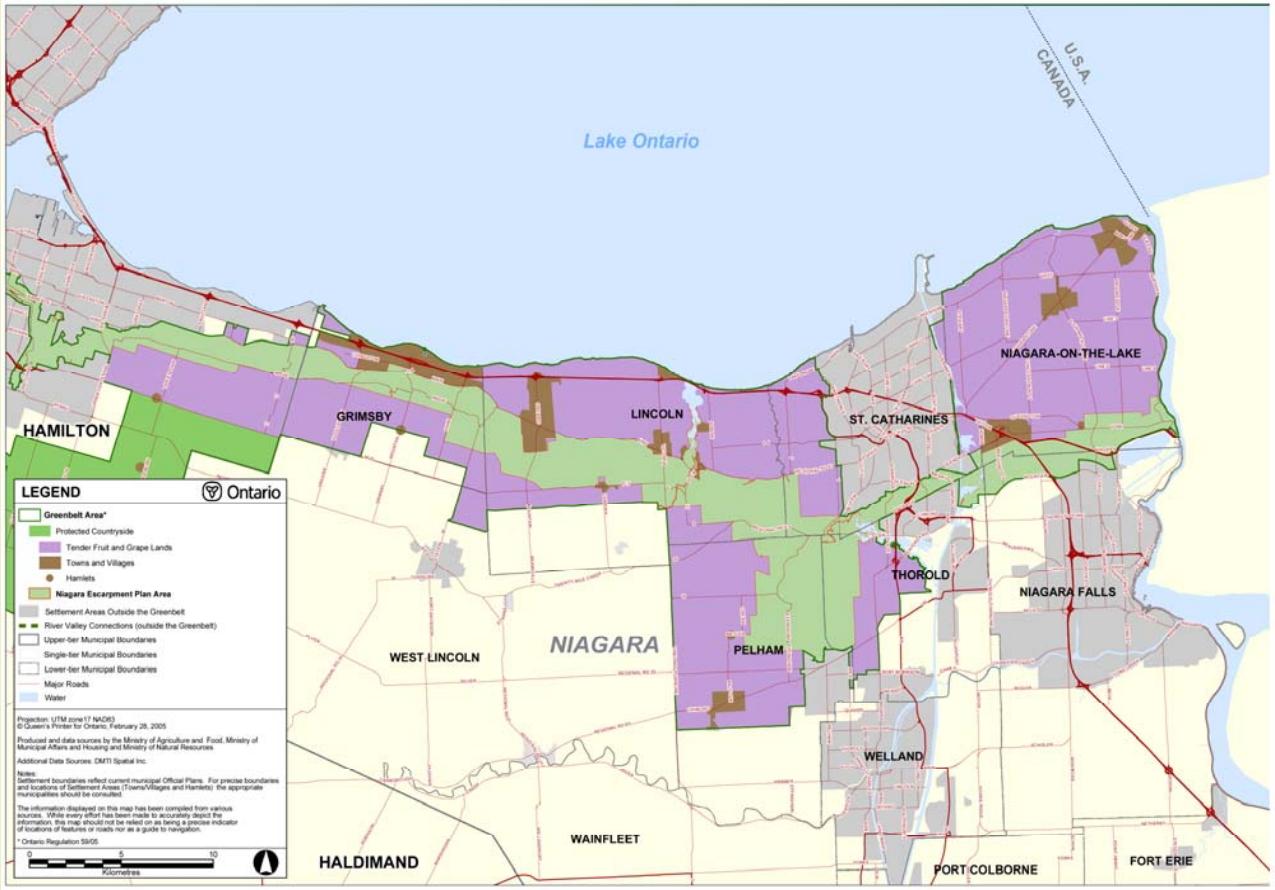
DEPARTMENTS.
LAKE SIMCOE
LAKE ONTARIO
2900
3100

FIGURE 6.3
NIAGARA PENINSULA TENDER FRUIT AND GRAPE AREA - (SCHEDULE 2)



PLANSCAPE

Source: Greenbelt Plan 2005

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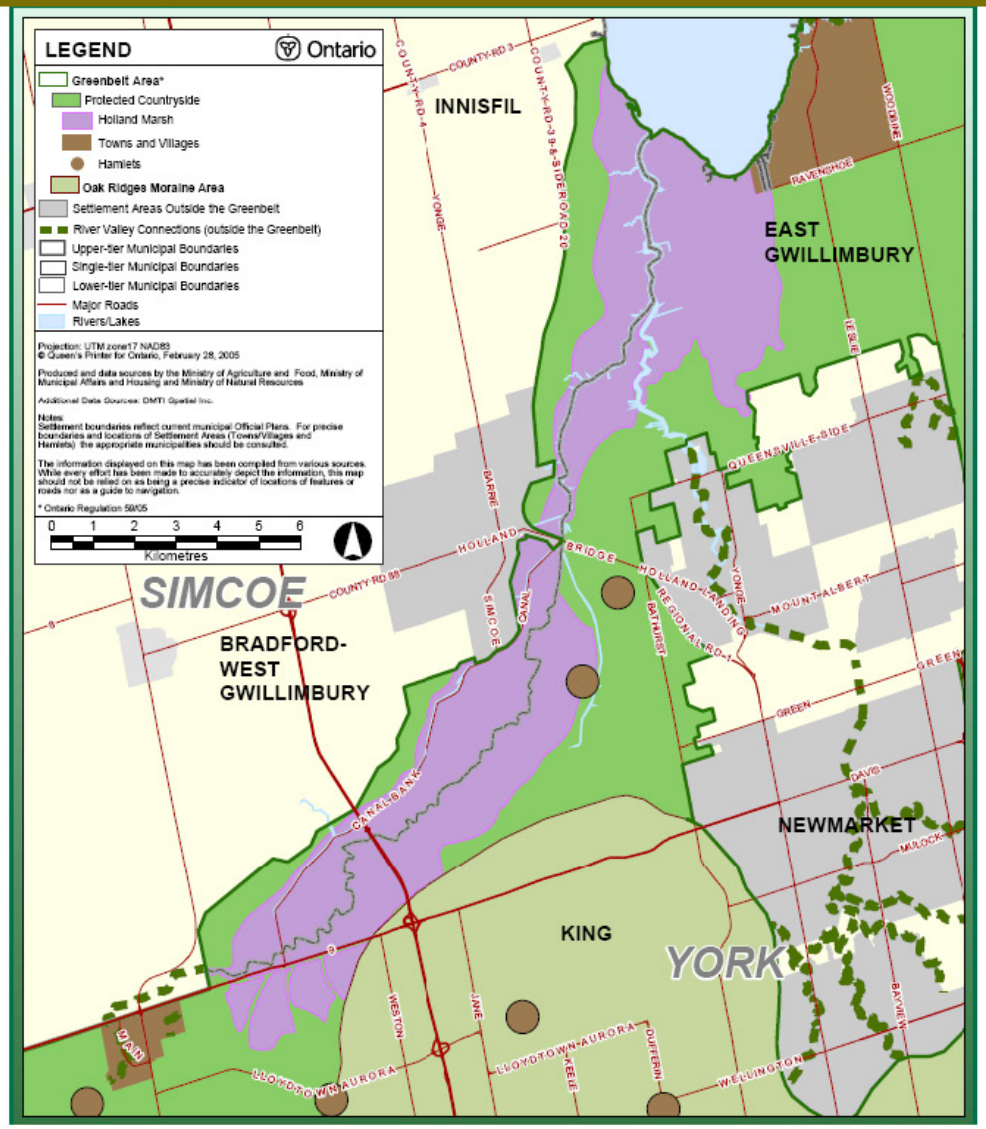
January 2011

FIGURE 6.4
HOLLAND MARSH (SCHEDULE 3)



Source: Greenbelt Plan, 2005

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June 2010

Specialty crop areas are defined in the Provincial Policy Statement as:

Specialty crop area:

means areas designated using evaluation procedures established by the province, as amended from time to time, where specialty crops such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil lands are predominantly grown, usually resulting from:

a. soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both; and/or

b. a combination of farmers skilled in the production of specialty crops, and of capital investment in related facilities and services to produce, store, or process specialty crops.[1]

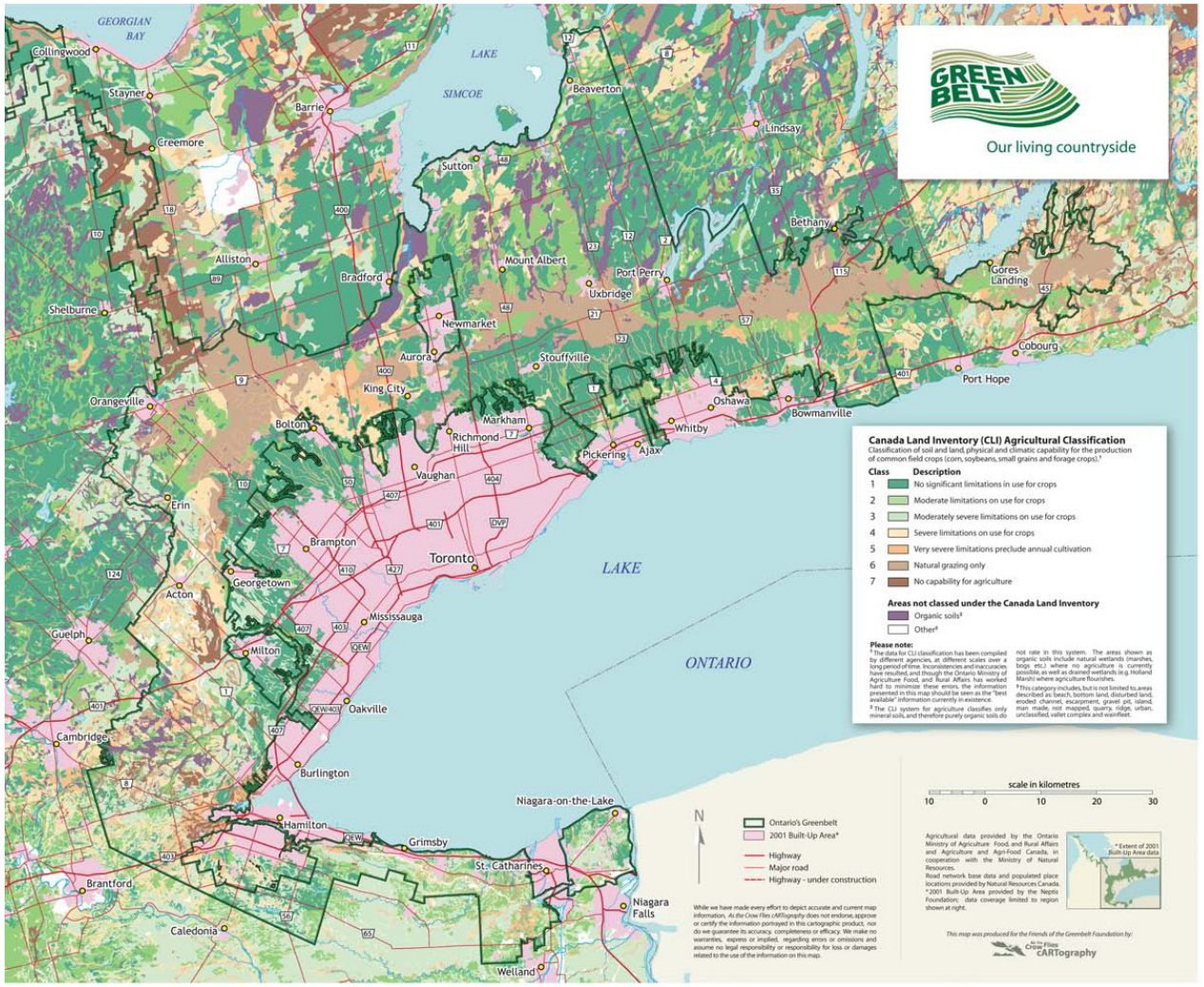
Specialty crop areas are recognized as a major resource for the province and must be designated through a specific process. Once designated, they are subject to the highest degree of protection under land use policy. The requirement for this protection is specified in the PPS:

> *2.3 Agriculture*
>
> ***2.3.1*** Prime agricultural areas *shall be protected for long-term use for agriculture.*
>
> Prime agricultural areas *are areas where* prime agricultural lands *predominate.* Specialty crop areas *shall be given the highest priority for protection, followed by Classes 1, 2 and 3 soils, in this order of priority.*[2]

Creation of the Greenbelt has protected the two specialty crop areas and portions of the prime agricultural lands in the Golden Horseshoe. **Figure 6.5** shows the outline of the Greenbelt in relation to the prime agricultural areas. As this figure confirms, although significant amounts of the prime land in the Golden Horseshoe are contained within its boundaries; there are significant areas of prime land that have been excluded. This area is generally south and east of the Oak Ridges Moraine and the Niagara Escarpment. A portion of this land is the area to be redeveloped for urban expansion to 2031. Between that and the Greenbelt, there are areas that will remain rural until the planning policies are re-evaluated for the period after 2031. When that process is occurring, the fact that this is some of the best agricultural land in Canada should be considered before decision are made to convert it for urban uses.

The quality of the land base in the Golden Horseshoe and the climatic conditions which support production of crops that cannot be grown elsewhere, justify retention of a vibrant agricultural sector in the region. Development of a comprehensive strategy to achieve this is appropriate.

FIGURE 6.5
CANADA LAND INVENTORY (CLI) AGRICULTURAL CLASSIFICATION- GREENBELT



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Source: http://www.greenbelt.ca/tags/greenbelt/maps/greenbelt-general-maps

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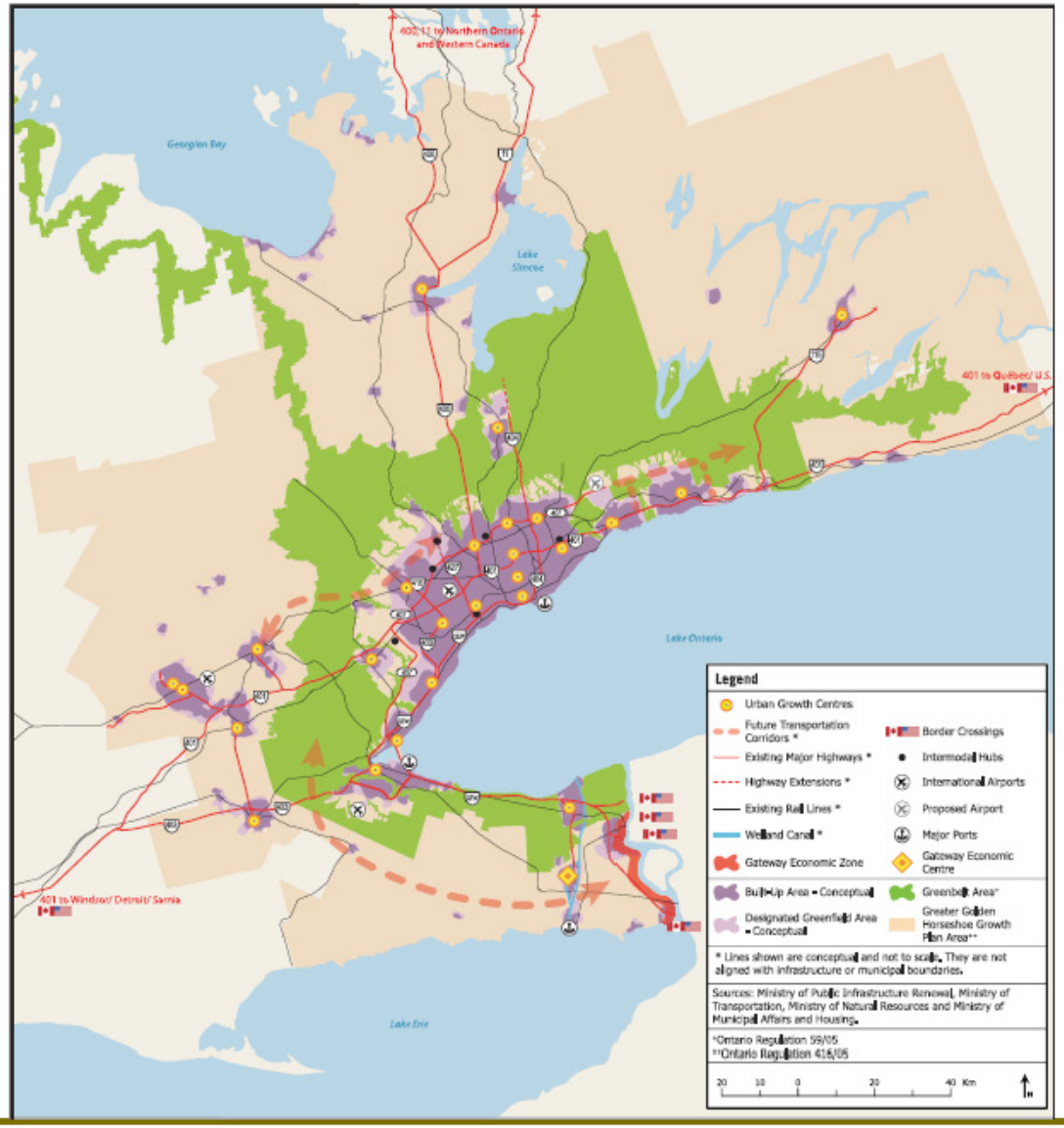
6.2 Infrastructure

With respect to the agri business sector it is not the quality of the land base that attracts activity but the other factors including access to market, availability of labour and a supportive service infrastructure. These prerequisites for successful business development are met in the Golden Horseshoe. As discussed in Chapter 5, the population of the Golden Horseshoe provides a large labour pool to draw on and a large and diverse market for products.

Figure 6.6 confirms that the transportation infrastructure of rail, air, water and road is in place to support movement of goods.

FIGURE 6.6
MOVING GOODS (SCHEDULE 6 - PLACES TO GROW)



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January 2011

However, although the infrastructure is in place, there are problems. The roads in the Golden Horseshoe are amongst the most congested in North America. This slows the pace of business and increases the cost.

> *The GTA is the fourth-most congested area on the continent, trailing only Los Angeles, the San Francisco Bay Area and Chicago.*
> *Traffic congestion doesn't just stay on our roads — it affects jobs and the economy. People are late for work. Trucks delivering the goods that keep Ontario's economy strong don't arrive at their destinations on time.*
> *As businesses increase their speed and efficiency and develop faster production cycles, delivering goods "just in time" has become more critical than ever — but battling traffic results in lost time and productivity. Congestion costs the GTA $2.2 billion each year.*[3]

To remain competitive, the ability to move goods quickly and efficiently is critical.

In addition to transportation, food and farming businesses also require service infrastructure including sewer, water and power. The urban areas of the Golden Horseshoe have a sophisticated infrastructure and designated employment lands to accommodate businesses. The rural area is not so well served. Roads designed to accommodate the movement of farm machinery; three phase power and municipal water are not services that governments consider as vital in the rural area. However to support a vibrant and progressive rural food and farming sector these are precisely the services that are needed.

6.3 Farming and the Environment

Not only does agricultural land comprise a significant percentage of the land area of the Golden Horseshoe, as an intrinsic part of the rural landscape, it provides many positive environmental benefits. Agricultural lands preserve open spaces and provide natural corridors for the movement of wildlife, contributing to biodiversity of areas. Retention of woodlots and windbreaks reduces soil loss through wind erosion, and provides habitat for birds and animal species that are under stress due to habitat loss in urban areas. Farm fields provide habitat linkages and a food source for birds and animals. As stewards of this land base, farmers have a critical role to play in its ongoing health. Not only do they secure their livelihood from the land; they live on it and therefore develop a strong understanding of and relationship with it. To be successful they must respond to the forces of nature in a way that will not negatively impact the resource.

When all of the benefits of a rural landscape exist within the boundaries of a growing urban region, the contribution of farmers is even more significant. As noted earlier, settlement in the Golden Horseshoe occurred and prospered largely because of the rich agricultural resource that predominates in the region. The fact that the agricultural land use has survived continuous waves of development attests to its value, but also adds to the quality of life of area residents both human and animal, by maintaining extensive areas of rural land which can sustain natural ecosystems.

There is ongoing debate about the environmental impact of agricultural activities on the natural environment which often focusing on the possible negative impacts of agricultural practices on land and water resources. Much of this debate fails to consider the vested interest farmers have in ensuring the long term health and productivity of the land base. Farmers rely on a healthy natural environment to sustain productivity; they have a vested interest in protecting it. As part of the natural environment farmers understand nature and work with its rhythms. They are trained and certified to manage and protect the resource.

There are model programs being tested that compensate farmers for their roles as stewards of the rural environment. The Alternative Land Use System (ALUS) that is being piloted in parts of Manitoba, Prince Edward Island and in Norfolk County is one such program that could be implemented in the Golden horseshoe to acknowledge the importance of agricultural properties in preserving the rural heritage and to alleviate the higher financial costs of farming in this area.

Agriculture activities and maintaining the agricultural land base can have positive environmental impacts. Agriculture can have a significant effect on maintaining air quality through the retention of open spaces and woodlots. Agricultural land supports storm water management and flood control. Less disturbed landscapes are better able to absorb or spread out the effects of flooding, with consequent reduction in property damage.

Research is ongoing for developing programs to reduce the impact of agriculture on the natural environment, focusing on farm practices that can contribute to improvements in surface and ground water quality.[4] Farmers in Ontario commit to implementing these practices through environmental farm plans.

The Environmental Farm Plan program was established as a voluntary education and awareness program designed to help Ontario farmers prepare confidential and self- administered rick assessments for their farms. Statistics from the Soils and Crop Improvement association, indicate that approximately 70% of Ontario farmers have completed a plan.

Increasingly, farmers are frustrated by the myriad of environmental regulations and controls imposed upon them and by the perception that farm practices are damaging to the natural environment. A mechanism is required to simplify regulations, protect the rural environment and reward good farming practices.

There are several mechanisms that could serve this purpose. The Environmental Farm Plan could be a tool to use to develop a single process to confirm environmental compliance with farm practices. The Local Food Plus (LFP) certification program established in 2006 as a non profit organization aimed at promoting local, sustainable agriculture is another.

Agriculture's ongoing sustainability has always depended on working in harmony with nature and maintaining a balance. Farmers have a vested interest in protecting the resource they rely on for a living and are strong proponents of environmentally sustainable practices. Having a vibrant agricultural community in the Golden Horseshoe ensures that there is an ongoing presence to manage and preserve the rural countryside.

6.4 Amenity, Recreation and Tourism

The rural and agricultural countryside represents an important element of the Golden Horseshoe. It provides opportunities for the public to enjoy rural landscapes and view and experience farming activities. Farm bed and breakfasts, working holidays, "pick your owns", and farm vacations provide opportunities for the urban public to experience the farm.

In the City of Toronto, Riverdale Farm, a small working form located in the middle of the City allows Toronto residents to:

> *Tour the Farm's scenic 7.5 acres along pathways through wooded areas, around ponds, and into butterfly-herb-flower-vegetable gardens. Cows, horses, donkey, sheep, goats, pigs, chickens, turkeys, ducks, geese, rabbits, and farm cats may be seen along the way in the barns and outdoor paddocks.*
>
> *Chat with the farmer during daily chores that include animal hay feedings, egg collection, cow milking (daily at 10:30am), goat milking, horse grooming, mucking out the stalls-pens-paddocks, and laying straw beds.*

All of these activities, while often contributing to the economic well-being of the farmer, also enhance the life experiences and quality of life of urban residents. The ability to "get out to the farm" for a day, can be a rewarding family activity. All of the Regions in the GTA promote this form of recreational tourism through various "farm fresh" programs. Web site, maps and brochures are used to advertise farm related recreational activities and direct the public to the assets available across the GTA.

Agriculturally themed tourism opportunities can be viewed as a valuable development in appropriate locations, providing financial benefits to the farm community, and valuable learning experiences for the travelling public. Local food is becoming an essential part of any gastronomic experience. Having access to local producers is becoming increasingly important for restaurateurs as they compete for tourism dollars.

Energy conservation at the farm level is also increasing in popularity, and provides opportunities to have farms operate "off the grid" or not be as reliant on the energy grid as they have historically. Pro-

grams to generate energy though the use of bio-digesters, wind generators and solar panels are being encouraged by the province and accessed by the agricultural sector. Bio-digesters have the advantage of dealing with agricultural waste while generating energy. Alternative biofuels are receiving increased attention as a cleaner alternative to fossil fuels.

6.5 The Role of Public Land

The issue of the cost of land has been identified as a barrier to establishing or expanding farms in the Golden Horseshoe. Access to rental lands at affordable rates on a long term basis is one option to overcome this barrier.

Use of rental land is common in the Golden Horseshoe. As indicated in Chapter 2, rental rates hover just below 50% of the area farmed in the Peel, Halton and York, are slightly over 40% in Hamilton and slightly under 40% in Niagara and Durham.

As noted earlier in this report, large amounts of rental land can be indicative of a vulnerable agricultural community. However in areas such as the Golden Horseshoe, where the cost of land is high, access to rental land can allow operators to expand or get into farming without a large capital investment. In these circumstances, if access to rental land is long term and secure, an abundance of rental land can be very supportive of ongoing agricultural production.

There is a significant inventory of publically owned land in the Golden Horseshoe that could support agricultural production. While much of the public land is in small pieces and somewhat fragmented, there are some significant holdings. Land around the airport in Hamilton is under production. Straddling the boundary between York and Durham there is a large area of public land, a portion of which is designated as an agricultural preserve. Large areas of this holding are leased for farming.

Included this area, the Rouge Park, straddling the boundary of the Regions of York and Durham, contains some of the best agricultural land in Canada, land that has been in production for hundreds of years. Large expanses of it are still in agricultural production. The Rouge Park Alliance and the Toronto Region Conservation Authority (TRCA) that manage these lands, are currently working with resident farmers to determine how to sustain this activity as an integral and important part of the park system.

The TRCA is also piloting several farm start programs that provide small plots to urban residents interested in agriculture. As outlined below this project integrates agriculture into the urban environment.

> *The McVean New Farmers project is a partnership between Toronto and Region Conservation (TRCA) and FarmStart. The New Farmers project is based on the historic McVean property located within the Claireville Conservation Area, in the City of Brampton which is owned by TRCA. The project is the first of its kind in Canada, leading the way towards sustainable, local agriculture that serves the needs of growing urban and peri-urban communities and protects the local greenspace and ecosystems. By encouraging new farmers and products and promoting local*

food production and community engagement, this farm project will allow community members to access and connect to the source of their food: to know and value the land on which is it grown and those who have grown it.[5]

Providing farmers affordable, long term access to public land holdings is a tool that should be part of a strategy to support the agri-food cluster in the Golden Horseshoe.

6.6 Summary and Conclusions

It is the unique characteristics of the Golden Horseshoe that have allowed it to evolve as a leading food and farming cluster. The area has the land, water and climate to support a diverse agricultural sector. It has the infrastructure to support food related businesses. However the area is not without challenges. The land base is under pressure for redevelopment for other uses. In the urban areas the infrastructure is under stress from overuse. In the rural areas the development of infrastructure is not meeting the evolving needs of the population. Steps need to be taken to correct these issues and allow the area to realize its potential as a food and farming powerhouse.

1 Ontario, Provincial Policy Statement, 2005, Definitions Section 6.

2 Ibid., Section 2.3.

3 Premier Dalton McGuinty ,Speech, June 2007

4 International Institute for Sustainable Development (IISD): In 2003, the IISD embarked on a five-year research project with Agriculture and Agri-Food Canada to study the issue of full-cost accounting and its application to policy development in agriculture, and produced three reports:

1. Barg, Stephan and Swanson, Darren, Full cost Accounting for Agriculture, International Institute for Sustainable Development, July, 2004;
2. Barg, Stephan, Swanson, Darren, and Venema, Henry David, Full Cost Accounting for Agriculture – Year 2 Report – Valuing Changes in Agri-Environmental Indicators, IISD, June, 2005; and
3. McCandless, Matthew, Venema, Henry David, Barg, Stephen and Oborne, Bryan, Full Cost Accounting for Agriculture – Final Report, Valuing public benefits accruing from agricultural beneficial management practices: An impact pathway analysis for Tobacco Creek, Manitoba, IISD, December, 2008).

5 http://www.trca.on.ca/the-living-city/programs-of-the-living-city/near-urban-agriculture/farmstart-mcvean-new-farmers-project.dot

Chapter 7—Policy and Strategies

The agri-food cluster in the Golden Horseshoe is influenced by a myriad of governments, agencies and organizations. One of the issues identified at the meeting of the various interest groups at Vineland Research Station in August of 2009 was a need to rationalize and coordinate all of the actions taken by all of the different groups to ensure that they were coordinated and working to support and promote the agri-food cluster. In this chapter, an attempt is made to identify the various government bodies, agencies and organizations that impact the agri-food cluster with a description of their mandate and policy initiatives. The purpose of this inventory is to identify trends and to create a listing of all of the various groups in order to make an effort to coordinate their action to maximize effectiveness in and promoting the sector.

7.1 Government Jurisdictions

The government structure in place in the Golden Horseshoe (GH) is graphically depicted on **Figure 7.1**. One of the frustrations expressed by operators in the agri-food cluster is with the plethora of government agencies and related regulations. There is a lack of coordination between government departments and levels of government and so the business of addressing all of the regulations is time consuming, costly, frustrating and sometimes contradictory.

This issue of over regulation, disjointed actions and an abundance of organizations involved in food and farming is not new. In a paper entitled *"Sustainable Local Food in Southern Ontario"* the Metcalf Foundation commented that:

> *Provincial politics have become increasingly stuck in a frustrating gridlock. We have separate ministries for agriculture, health, economic development, community development and the environment as well as a multiplicity of non-governmental organizations, each focused on a single piece of the problem. We are at risk of missing many potential connections and the benefits they could generate"*

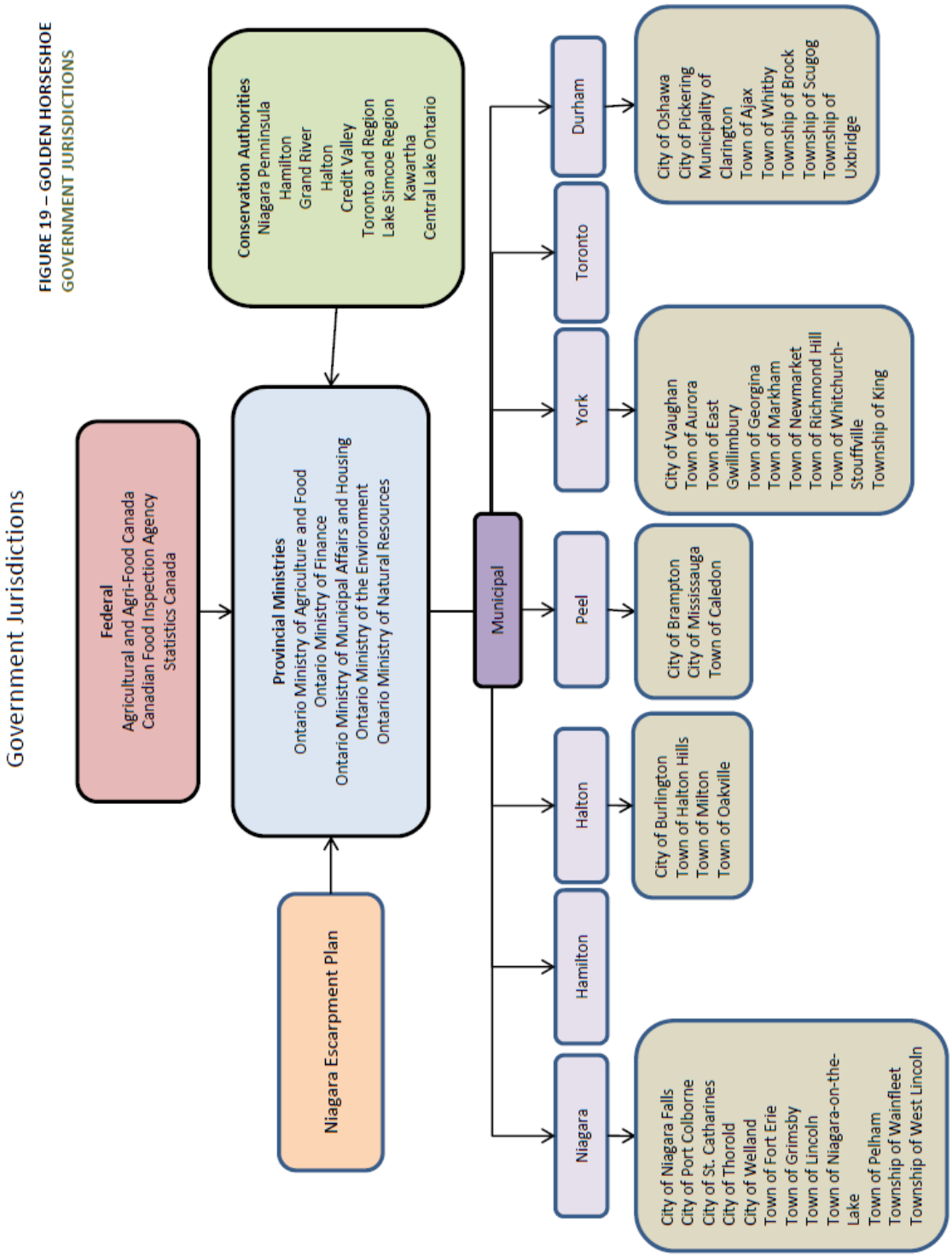


Figure 7.1 – Government Jurisdictions

7.2 Planning policy

The agri business cluster in the Golden Horseshoe is subject to federal, provincial and municipal polices. The policies at the federal level are largely related to economic and regulatory issues. The management of the land base is the responsibility of the provincial and municipal governments.

At the municipal level the Golden Horseshoe is comprised of the Regions of Halton, Durham, Niagara, Peel, and York and the Cities of Hamilton and Toronto.

Specific land use planning policies for Agricultural and Rural lands in the Golden Horseshoe provide direction for this valuable economic sector. A review of numerous planning documents at the provincial, regional and local level revealed that specific policies related to agricultural land uses are fairly consistent across the region.

Traditionally, the main focus of planning in rural areas has been the preservation of agricultural lands. Increasingly however governments are recognizing that to successfully protect the land base, is important to ensure that farming operations are financially sustainable.

At the provincial level, the Planning Act, and through it, the Provincial Policy Statement (PPS), Niagara Escarpment Act, Growth Plan for the Greater Golden Horseshoe, Greenbelt Plan and Oak Ridges Moraine Management Plan, provide the framework for managing land uses in the Golden Horseshoe. The Ministry of Municipal Affairs is responsible for the implementation of planning policy with the assistance of the Ministry of Agriculture, Food and Rural Affairs on matters related to rural and agricultural land uses.

7.2.1 Provincial Policy Framework

The Planning Act

The Planning Act identifies "*the protection of the agricultural resources of the Province"* as a matter of provincial interest and authorizes the Minister to issue policy statements on matters regarding it. Municipalities, in implementing planning controls, must be consistent with these policies, and therefore, must address the protection of agricultural resources.

The Provincial Policy Statement 2005

The Provincial Policy Statement, issued under Section 3 of the Planning Act, provides direction on the management of the Province's agricultural resources.

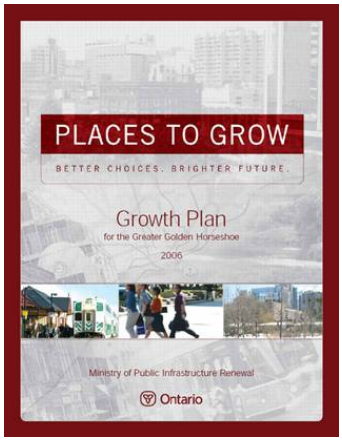
The PPS defines prime agricultural land and areas in Sections 1.1.3.9, 1.1.4.1 and 2.3[1] and directs that they shall be protected for agricultural uses unless the land is required for expansion of a settlement area.

The other two land uses that must be protected under the PPS are natural heritage features and areas (Section 2.1) and lands containing aggregate resources (Section 2.5). However both are expected to co-exist with agriculture. In the case of natural heritage features and areas, existing agricultural uses are to be accommodated. Aggregate uses are deemed to be interim uses with a requirement that agriculture will continue until extraction occurs and will be resumed on rehabilitated land once extraction is complete. To ensure that the interests of agriculture are protected, it will be important to strike the right balance for managing the relationship between agriculture, aggregate and the natural heritage system in the revised Official Plan policies.

The PPS is currently under review with a revised statement due to be completed in 2012. Many agricultural groups are participating in this review to ensure that the revised policies are supportive of profitable agriculture.

The Growth Plan for the Greater Golden Horseshoe 2006

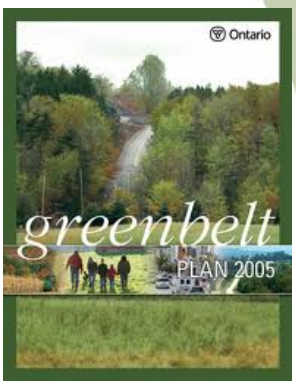
The Growth Plan implements additional policies for areas within the Greater Golden Horseshoe. The policies pertaining to agriculture are similar to those in the PPS and impose similar requirements for the protection of agricultural land. (Section 2.2.8)



Section 4.22 (1) requires provincial participation in the identification of prime agricultural areas and specialty crop land. The Growth Plan goes beyond the PPS in supporting agriculture by encouraging municipalities to develop farm infrastructure and solicit input on agriculturally related decisions, from the farm community.

Under the Growth Plan each municipality is required to establish firm urban boundaries within which growth will occur. As part of this exercise, employment lands are to be identified. Areas outside the urban boundary are protected for natural heritage, agricultural and aggregate resource management.

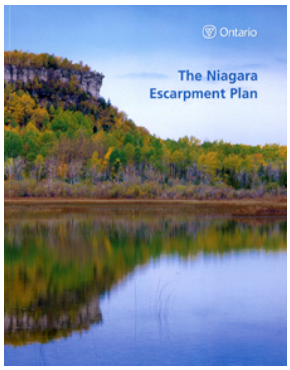
The Greenbelt Plan



The Greenbelt Plan contains specific policies (Section 3.1) addressing management of prime agricultural areas, specialty crop areas and rural areas within the Protected Countryside. It encourages external connections to prime agricultural resources and the agri-food system beyond the boundaries of the Greenbelt.

The policies which must be addressed in the updated Official Plan require protection of agricultural land. In doing so, they recognize the relationship between agriculture, aggregates and natural heritage and provide direction on managing it. The policies on external connections recognize the need to integrate agriculture in the Greenbelt with agriculture in adjacent areas. The Plan also acknowledges that in addition to protecting land, a support system is required for agriculture to thrive. In creating policies for agricultural land, the Region must conform to the policies of the Greenbelt Plan.

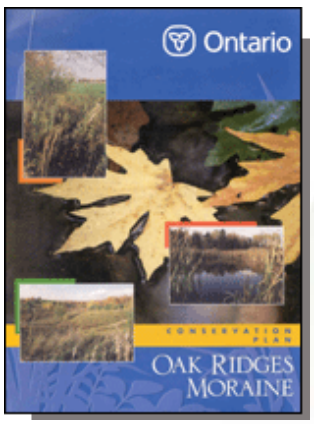
The Niagara Escarpment Plan



The Niagara Escarpment Plan (NEP) has been in place since 1985 and its policies have been incorporated in Regional Official Plans on an ongoing basis. The NEP is quite progressive in its management of value added uses on farms. Policies such as these to allow certain types of rural businesses which protecting agricultural lands are critical to economic prosperity in the rural area.

Oak Ridges Moraine Conservation Act and Plan

The Oak Ridges Moraine Conservation Act and Plan requires protection of the Moraine and its "ecological and hydrological features". Policies addressing the requirements of the Oak Ridges Moraine Conservation Plan must be incorporated in the municipal official plans. Agriculture is a permitted use in the Countryside designation.



It is interesting to note that since the implementation of the Oak Ridges Moraine Act there has been a notable decline in the amount of agricultural land in the area under its jurisdiction. In a report recently completed for the OFVGA, it was noted that the decline in area of farmland in the Greenbelt between 2001 and 2006 was less than 1% in the Niagara Escarpment, 2.5% in the Protected Countryside and 12% in the Oak Ridges Moraine.[2]

Overall, the provincial policy framework requires that prime agricultural areas and land be identified and protected unless required to accommodate projected growth; and further that specialty crop land be identified and protected. In doing so, the provincial policies also address the need for balance with natural heritage and aggregate policies and acknowledge that additional support beyond just the protection of land is required to sustain agriculture.

7.2.2 Regional Policy Framework

Without exception, the various planning documents in effect in the Golden Horseshoe are consistent in identifying similar policies and regulations specific to agriculture:

- To preserve the agricultural land base and rural character;
- To protect and preserve prime agricultural land for food;
- To support locally grown and produced agriculture products;
- To promote adequate, stable incomes for farmers;
- To prevent urban development on prime agricultural lands;
- To encourage farmers to follow conservation and sustainable farming practices;
- To promote rehabilitation of extractive areas for agricultural uses;
- To support farmers and their right to farm;
- To prohibit non-farm uses in agricultural areas; and
- To regulate lot creation in the rural area.

Region of Durham

The recently updated Durham Regional Plan supports a full range of agricultural, agricultural-related and accessory uses in prime agricultural areas, including grain drying and storage for farm produce, farm gate sales and retail stands, small scale home occupations and home industries. In addition, the Plan promotes value-added agricultural products (agri-tourism, bed and breakfast, farm vacation homes, farm tours, cottage wineries) provided they relate directly to the farm operation.

The Region has partnered with the horticultural sector to promote economic development in the greenhouse industry.

The Region is assisted by the Durham Agriculture Advisory Committee which actively promotes public awareness and education about agricultural land use and addresses the challenges facing the agricultural sector.

There are additional policies in the Durham Region Strategic Plan 2009-2014 to protect and strengthen support of agricultural and agri-food businesses. Durham has a strong rural economic development focus and understands the importance agri business is to its economy.

Region of Halton

Through the recently completed Sustainable Halton process to bring the Halton Official Plan in to conformity with the Growth Plan for the Greater Golden Horseshoe, the Region has continued its history of implementing supportive agricultural policies. The Region has an active Agricultural Advisory Committee that provides advice on agricultural issues to council. Currently the Region is in the process of implementing a series of guidelines to support the agricultural policies approved in the updated Regional Official Plan.

City of Hamilton

In addition to specific agricultural land use policies in its Official Plan, the Region's Economic Impact – Agri Business & Food Processing document provides strategic direction for agricultural operations. Agriculture is a significant component of the local economy and there is strong, local production in greenhouses, poultry & eggs, mushroom, vegetables, dairy, horse & pony, and food processing companies.

The Hamilton Agriculture Advisory Committee provides input to Council of agricultural issues and in 2007 prepared an Agricultural Action Plan, subsequently adopted by Council to support and promote agriculture in the City. Details regarding this action plan are provided further on in this chapter.

Hamilton also has a specific rural economic development function that focuses on economic activity in the rural area. This function has been successful in supporting the rural community in a challenging transition to single tier government. The loss of the rural municipalities was disappointing but made somewhat easier by the support given by city staff in promoting the interests of the rural and agricultural area. Hamilton is home to a significant number of agri businesses and the number continues to grow.

Region of Niagara

The Region of Niagara is home to one of the two specialty crop areas in the province, the tender fruit and grape lands. This land base, along with the Holland Marsh, currently has the highest priority for preservation.

Niagara has always been a leader in protecting and promoting its agricultural sector. In 2003, an Agricultural Task Force, created by the Regional Chair to promote and protect agriculture, released a strategic plan[3] identifying initiatives designed to support agriculture in the Region. The Task Force, working with the support of the Regional government, has been successful in implementing a number of the tasks and is a model for the type of support required to promote the sector in the Golden Horseshoe. This group and the Regional Council are aware of the need to take a holistic approach to supporting the agri-food cluster. They understand that to be successful there must be a coordinated economic development approach which deals with all elements of the cluster. Successes arising out of the Niagara Strategic Plan include the revitalization of the Vineland Research Centre as a focus for research and innovation in agriculture and agri business, development of a comprehensive local food policy, support for an agri-tourism policy and implementation of planning policies to support value-added uses on farms.

As a result of the work of the Task Force, Niagara Region is a leader in the Golden Horseshoe with respect to agriculturally related value-added policies. The Niagara policies contain the following fundamental principles:

- Right to farm is paramount;
- Protection of agricultural land base is fundamental;
- Purpose of allowing farm diversification and value-added uses is to improve financial returns for farmers;
- Policies should enhance ability to farm successfully without conflicts;
- Value retention is a intrinsic part of production and addresses requirement for market ready products and is part of prime agricultural uses;
- Value-added activities should add value without detracting from primary agricultural function;
- Value-added uses include accessory farm related uses and secondary uses;
- Controls on scale and impact.

In a 2009 amendment to its Official Plan, the Region added the following policies in support of agricultural uses:

1. Recognize the changing nature of agriculture and support farm diversification activities;
2. Establish positive framework for facilitating sustainable development that supports traditional land based activity and sustainable farming activities;
3. Become more competitive;
4. Adapt to new and changing markets;
5. Diversify into new agricultural opportunities;
6. Improve understanding of agriculture by the public;
7. Broaden operations to diversify economic activities and add value to primary products;
8. Recognition of opportunities for on-farm alternative and/or renewable energy sys tems.[4]

Region of Peel

Agriculture is an industry that is under stress in the Region of Peel. There is no designated agricultural land left in Mississauga and little in Brampton. Despite having some of the best agricultural land in the country within its borders and being home to a significant agri business cluster, with the exception of Caledon, agriculture seems to have little influence at the political level.

Efforts are being made to change this situation. There is an active Peel Federation of Agriculture and a Regional Agricultural Advisory Committee. In updating the Regional Official Plan to implement the Growth Plan, Peel has implemented progressive policies in support of Agriculture. The Region continues to support the GTA Agricultural Action Committee and implementation of their strategic plan.

Region of York

As part of the update of the Regional Official Plan the Region of York conducted a comprehensive review of the agricultural resource within its boundaries and enacted policies to protect it. With 60% of the Region's land area included in the Greenbelt, the Region is becoming aware of the importance of the rural area and its potential. As home to one of the two specialty crop areas in the province, the Holland Marsh, the Region has a vested interest in supporting and promoting agriculture.

Effective and coordinated planning policies are essential to the long term sustainability of the agricultural sector in the Golden Horseshoe. Business linked with, providing services to and processing the products of agriculture will support both primary production and the quality of life of regional

residents. Farming as a right should be recognized, encouraged and supported by all levels of the public and private sectors. It is in the best interests of all residents in Ontario to protect this valuable resource for present and future generations.

As part of the strategy, consistency, comprehensiveness and effective implementation of polices that support the agri-food cluster are key.

One of the issues with planning policy in the Golden Horseshoe, aside from the sheer volume that has a major impact on food and farming, is the restrictions on food related economic activities in the rural areas. These restrictions focus all employment activities in the urban area which increase the divide between production, processing and distribution of food products.

7.3 Agencies and Organizations

7.3.1 Ontario's Golden Horseshoe - Inventory Of Agri-Food Industry Value Chain Organizations

There are hundreds of organizations that affect and/or have membership and input from individuals, businesses and groups in the agri-food value chain in Ontario's Golden Horseshoe and Holland Marsh. Mandate and contact information for the main ones is contained in **Appendix 3**.

Organizations bringing together business people with similar interests, to foster education, information-sharing, research, government relations and public communications have a long history in Canada. With a long history of agri-food commercial activity in Ontario, many of the farmer-funded associations and commodity groups affecting the province's and thus the Golden Horseshoe area's agri-food and rural communities are well-established. For instance, the agricultural societies that organize local fall fairs in the study area have been in existence since the mid-1800's and are large, well run organizations with significant assets.

The organization of many of these mature groups includes a provincial head office with local affiliates aligned with municipal boundaries. This typical structure was driven by the need and expectation for grass roots membership input, involvement, service delivery, and interaction with local, provincial and national political and organizational contact points.

More recently-formed groups in the inventory represent both emerging agri-food industry business opportunities and urban citizen-driven community action around awareness of local food issues. The drive behind many of the local food and environmentally conscious groups reflects an interesting "push-pull" dynamic whereby farmers are turning to value-added and direct-to-consumer sales activity, and urban citizens are motivated to establish connections with local farmers and better understand where their food comes from. Economic, health, demographic, environmental and cultural factors seem to be influencing this trend.

One of the important factors to understand about the plethora of organizations in the agri-food sector concerns their primary source of funds. Some organizations are strictly voluntary and rely on private contributions; others rely either on direct government grant funding or on authorities conferred by government to collect license fees from growers on a mandatory basis. Those in the later category are primarily "marketing boards" or "representative associations" under the Farm Products Marketing Act (Ontario). Several provincial marketing boards are based in the study region: Grape Growers of Ontario, Ontario Tender Fruit Producers, Ontario Fresh Grape Growers' Marketing Board, Ontario Apple Growers, Chicken Farmers of Ontario and Dairy Farmers of Ontario among them. Organizations with such funded authorities tend to be more stable.

The key issue that arises as a result of attempting to identify these groups and agencies is to note the sheer number of them. Many share common goals. It is questionable if the resources required to support this large number of groups on an ongoing basis is the best way to support the agri-food cluster in the Golden Horseshoe. Co-ordination, rationalization and cooperation may result in a better understanding of what is required for the good of the whole, result in more efficient use of resources and generate commonality of purpose.

7.3.2 Action plans

Throughout the Golden Horseshoe various regional and local governments have implemented strategic plans to support agriculture. Many of these share common goals and promote similar actions. What follows is a brief summary of some of these plans to demonstrate commonalities and provide insight into how the various plans could provide input to creation of one strategy for the Golden Horseshoe as a whole.

Region of Niagara

Niagara has always been vigilant in protecting the agricultural land base. With the release of the Regional Agricultural Economic Impact Study in 2003, the Region enhanced this protection by creating an Agricultural Task Force. The Task Force, comprised of representatives of the broader agricultural community, was given a mandate to support the economic viability of regional agriculture. The Task Force prepared a vision for agriculture in Niagara and a strategic plan to support the economic viability of farmers; both were endorsed by the Region.

The vision endorsed by Niagara Region Council states that:

Vision for Agriculture:

Agriculture in Niagara is a diverse, multi-faceted industry based on a very special, limited, non-renewable resource created by a unique combination of physiography, soil, location and climate. The strength, stability and diversity of this industry is recognized, and will be promoted and protected so it can continue to grow and evolve for the benefit of present and future generations.

The strategy established to support agriculture established a series of goals against which government actions could be tested to ensure they supported agriculture.

Goals

- *Maintaining the significant agricultural land base with an infrastructure that supports agriculture;*
- *Enhancing Niagara's rural environment while enabling viable agricultural enterprises to flourish;*
- *Creating circumstances where farms can operate profitably;*
- *Supporting agricultural activities and reducing uncertainty, conflict and risk for the agricultural community;*
- *Providing a mechanism for the long term profitability and succession of farm properties to encourage the next generation to enter the industry;*
- *Establishing a public policy framework at all levels that supports the long term viability of Niagara's diverse agriculture;*
- *Developing a Niagara brand for quality farms, products and environment; and*
- *Protecting the public interest by preserving the ability to have a sustainable home-grown food supply.*[5]

The essential ingredients for a successful strategy were identified as:

- *Protection of the land base;*
- *All levels of government and government agencies must provide meaningful support for agriculture;*

- *Recognition through broad definition, that agriculture in Niagara is a diverse industry made up of many different components which have different requirements at different times;*
- *Maintaining support that allows profitable agricultural operations, such as provision of infrastructure;*
- *Inclusion of all agricultural sectors in the strategy;*
- *Enhanced profile for agriculture;*
- *Promotion of agriculture's social, environmental and economic significance;*
- *Provision for complementary value-added activities that are based on, compatible with, and integral to, primary production; and*
- *Establishment of a mid peninsula multi modal transportation corridor.*[6]

The strategy then identified actions that could be taken to support agriculture which included:

- *Establish a Comprehensive Definition of Agriculture for Niagara;*
- *Protect the land base;*
- *Develop commodity specific policies;*
- *Promote Niagara as a unique agricultural area;*
- *Create an economic development strategy to promote agriculture and agriculturally related businesses;*
- *Secure support from all levels of government and ensure that initiatives are coordinated and mutually supportive;*
- *Encourage Niagara specific research;*
- *Publicize the reality that agricultural land is a non renewable resource;*
- *Educate the public about agriculture and the contribution that agriculture makes to quality of life;*
- *Develop infrastructure that supports agriculture;*
- *Encourage the development of "farm friendly" transportation infrastructure including a mid peninsula transportation friendly transportation corridor;*[7] *and*
- *Acknowledge agriculture as an "economic engine" in Niagara.*[8]

The Task Force's strategy for supporting agriculture in Niagara was subsequently supported by the provincial government which provided a grant to "*implement an agricultural viability plan for the area".*

In response, the Task Force established a specific goal *"To develop specific programs that will grow agriculture in Niagara to a $3.6 billion industry annually from its current level of $1.8 billion."*[9]

The specific actions that were identified to achieve this goal included:

1. Re-establishing the research capability of the Vineland Research Centre to support the agricultural industry.
2. Reducing barriers to growing the agricultural industry with recommended solutions.
3. Specific tax policies for value-added facilities as part of the farm operation.
4. Providing raw water for agriculture.
5. Developing small and medium processors.
6. Re-visiting the use of the Agricultural Easement program of the earlier 1990's program entitled the "Niagara Tender Fruit Lands Program".
7. Developing a Niagara brand for agricultural products – quality products, quality farms, quality environment for community health.

Over time, the Task Force has worked hard on behalf of the Region to implement the seven identified actions and has successfully supported a number of them. Actions that were key amongst the successes include:

- re-establishment of the Vineland Research Centre with a focus on research to support the type of agriculture that predominates in Niagara and commercialization of agricultural product;
- establishment of an agricultural facilitator to assist and support agriculturally related proposals and applications;
- implementation of Official Plan policies to support value-added activities in the agricultural area;
- completion of an assessment of Regionally based irrigation for agriculture; and
- development of a local food policy.

Creation of the Greenbelt addressed the goal of revisiting the agricultural easement program to enhance protection of the tender fruit lands.

The Task Force continues to work on the other tasks identified in the Action Plan. As they do so, they also monitor ongoing developments impacting the agricultural sector and respond accordingly. Some, of the challenges that have arisen include:

- Closing of the Cadbury-Schweppes juice pant in St. Catharines and the CanGro Foods plant in St. David's;
- Rising costs for energy;
- Rising costs for labour;
- Fluctuations in the value of the Canadian dollar; and
- Adjustments to the implementation of the Greenbelt Plan.

Niagara is an active part of this exercise to implement an agri-food strategy for the Golden Horseshoe. Their past experience in successfully implementing a regional strategy will be of great assistance in moving this process forward.

City of Hamilton

In 2006, the Hamilton Agricultural and Rural Affairs Advisory Committee was given responsibility for creating a strategic plan to support agriculture. Over the period of a year, the Committee consulted with the agricultural community to develop an agricultural vision, goals, objectives and criteria for success, all of which were endorsed by City Council in July of 2006.The vision endorsed by Hamilton City Council states that:

Vision for Agriculture:

Agriculture is a vital component of the physical, environmental, economic, cultural and social structure of the City of Hamilton. The strength, diversity and potential of this industry is recognized by Council and the community it represents, and will be protected and promoted so it can continue to grow and evolve.

Goals

- *Maintaining the agricultural land base and promoting financial sustainability for future generations to continue farming;*
- *Preventing infiltration of conflicting uses that put the agricultural community at risk;*
- *Promoting an economic development program for agriculture;*
- *Raising the awareness of the quality of the agriculture sector in Hamilton;*
- *Establishing a higher profile for agriculture through informed media;*
- *Ensuring that agricultural interests are understood and factored into development of infrastructure;*
- *Fostering co-operation between agriculture and government agencies to support the industry through policies and programs;*
- *Adopting a broad definition of agriculture to allow flexibility in production and adaptation to market fluctuations and other factors that may change over time;*
- *Protecting long term food security for Canadians with an emphasis on locally produced food.*

Objectives

- *Maintain an agriculturally friendly area rating tax structure;*
- *Establish an economic development program specifically to support agriculture;*
- *Ensure City staff are educated about and factor in the needs of agriculture in all actions;*

- *Develop a rural infrastructure program;*
- *Create a rural servicing standard for soft and hard services;*
- *Establish a credible liaison between City Council and the Agricultural Advisory Committee.*

Measures of Success

- *Long term survival of agriculture in the City;*
- *Enhanced profile for agriculture;*
- *Firm urban boundaries maintained;*
- *Farm friendly infrastructure in place;*
- *Strong support industries;*
- *Farm friendly City policies.*

6.3.3 Action Plan Deliverables

Using the vision as a basis, an extensive consultation process was undertaken with the agricultural community. This process led to the completion of a strategic plan containing a series of recommendations for actions to help the agricultural industry. The strategic plan categorized the action plan into short and long term deliverables. The short term deliverables, have been addressed number of which have been addressed by the City, are listed below.

Economic Development

- *Update the 2003 Economic Impact and Development Study to reflect new census information and to determine the current status of the industry in Hamilton. Develop a rural Economic Development program which encompasses a local food strategy.*

- *Develop a partnership with the "Eat Local Program" and Public Health Department to promote the consumption of local food and retention of local food productions as a positive contribution to healthy living.*

- *Develop a Resource Guide or Industry Profile for the agriculture sector that includes a sector overview, infrastructure information, new business, opportunities, industry resources, business / supplier profiles, business directory and employer incentives and opportunities.*

Promotion

- *Create an education and marketing strategy for agriculture to educate the public and to raise awareness about the contribution of agriculture to the economy, environment, local character and quality of life in Hamilton.*

- *Work with the educations institutions at all levels to include agricultural programming in the curriculum and encourage the provision of education support and programs for farmers.*

Strategic Development

- *Create an "open for business" strategy and task force for agriculture to assist the agriculture industry during the development process. This "open for business task force" would work with staff to ensure equity in fees and charges for the industry that are comparable to other agriculture communities and streamline the development process.*

- *In dealing with agriculturally related development applications, institute a system specific to the agricultural sector "one stop shopping" for all applications that includes specific staff expertise relating to the agriculture industry.*

- *Work with City officials to continue the policy of maintaining large contiguous agricultural areas prohibiting non-farm development. Address agricultural requirements in developing capital plans for Hamilton long term infrastructure improvements and enhancements.*

Creating Partnerships

- *Encourage the articulation of a strong, well publicized provincial and federal vision for agriculture by working with all levels of government and other abutting upper tier municipalities to implement support programs for agriculture (Niagara, Halton and GTA).*

Financial Tools

- *Work with the City of Hamilton to create a farm friendly property tax regime. In support of this, a benchmarking exercise will be conducted to inventory agricultural tax regimes in other municipalities.*
- *Create tools to address pressure associated with rigorous environmental programs placed on farmers.*[10]

In addition to these specific tasks, the City has undertaken an extensive land use planning review.

6.3.4 GTA AAC - The Regions of Durham, Halton, Peel and York and the City of Toronto

In 2005, the GTA's Federations of Agriculture, together with a Working Group comprised of staff from the four regions and the City of Toronto formulated an action plan to support agriculture in the GTA. Creation of the plan was a major achievement, made possible by extensive work and co-operation between the four regional governments, the City of Toronto and the agricultural federations. Each of the four Regional Councils endorsed the Action Plan in principle and the GTA Federations of Agriculture, the City of Toronto, Ontario Ministry of Agriculture Food and Rural Affairs, Ministry of Municipal Affairs and Housing, and Agriculture and Agri-Food Canada provided support and a commitment to see the plan implemented.

The Greater Toronto Area Agricultural Action Committee (GTA AAC) was created as the champion to implement the Plan. This Committee's mandate was based on a common commitment to sustaining a strong and prosperous agricultural industry within the GTA. Since its inception, the GTA AAC has worked hard to fulfill its mandate; the organization has grown and evolved and new partners have come forward. As its main task, the GTA AAC has worked to ensure that the Action Plan was being implemented both by themselves and their other partners.

The GTA AAC's members include farmers, politicians, economic development officers, planners and community leaders. The GTA Planning Commissions, asked by the Regional Chairs to assist in the implementation of the plan, established a GTA Agricultural Working Group consisting of staff from the four Regions and the City of Toronto to assist the GTA AAC. Over the past four years the Committee assisted by the Working Group, has worked to implement the plan and enjoyed many successes

The 2005 plan set out 37 individual actions. Overall, the plan was extremely ambitious and the Committee has done a commendable job in moving forward with the various actions.

The plan has been a working document. In 2006, the GTA AAC reviewed and updated the plan and prepared a scoped action plan for moving ahead. This plan focused on 7 actions which included:

1. Rebuild the middle by supporting the development of web- based business-to-business tools for GTA local food: marketing, branding, contracting and procurement;
2. Celebrate GTA agriculture at the Royal Agricultural Winter Fair;
3. Communicate the importance of local food and near-urban agriculture in the GTA;

4. Improve agricultural economic development throughout the GTA;
5. Develop a toolkit for near-urban agriculture;
6. Create opportunities for beginning farmers, especially those with ethnic and culturally diverse backgrounds;
7. Address taxation of near-urban farmland, on-farm value-added activities and on-farm businesses.

In December 2007 and again in August of 2008 forums were held to access and update the action list. Of the seven actions listed progress has been made on each one and lessons have been learned in how to proceed effectively. The main lesson learned is that progress is iterative and can best be achieved through partnerships.

At this point successes from the action list include:

- Creation of the GTA AAC;
- Establishment of a GTA Agricultural Working Group comprised of staff from the four regions and the City of Toronto;
- Creation of rural economic development functions in a number of municipalities;
- Improved profile of agriculture in the GTA through participation in events;
- Development of a partnership with the Greenbelt Foundation to create a data base of farm products available in the GTA;
- Promotion of and support for local programs which are being introduced across the GTA;
- Partnering with Ontario Farm Fresh at events such as the Royal Winter Fair to promote local product; and
- Support for producers in accessing public land for production.

Many of the other actions from the Plan have been completed in part or in whole.

In the spring of 2009, the Committee revisited its original vision and mandate. Creation of the Greenbelt and implementation of the Growth Plan for the Greater Golden Horseshoe had added a new dimension that needed to be addressed. The GTA AAC recognized potential for new partnerships and an opportunity to revise, expand and update the Action Plan. Based on this revised goal, they expanded their vision to include new priorities. These priorities are summarized below.

Build Partnerships

The GTA AAC has been effective in fostering partnerships at the regional level within the GTA, on issues of regional significance. With the creation of the Greenbelt and the implementation of the Growth Plan for the Greater Golden Horseshoe it has become apparent that the GTA shares many issues in common with the other municipalities in the Greater Golden Horseshoe, specifically Niagara and Hamilton.

Therefore it was determined that a partnership should be created to include Niagara and Hamilton and to focus on issues of specific concern which include:

- Property taxes;
- Environmental controls;
- Linkages with the agri business sector;
- Agricultural policies;
- Urban rural interface; and
- Local food policies.

Co-ordination

There are a number of initiatives being implemented in each of the Regions and in the City of Toronto that impact agriculture and local food. These include the development of food charters, green plans and economic development strategies. The GTA AAC through its broad based membership should provide input into these activities, to encourage consistency across the Greater Golden Horseshoe and allow for the sharing of resources and expertise.

Specific attention should be paid to ensuring that agriculturally related initiatives in the Greater Golden Horseshoe are co-operative. Activities of the Regional Agricultural Advisory Committees, and Regional Federations of Agriculture should be monitored to ensure the interests of producers are met in a consistent way across the regions. Issues of interest would include planning policies, economic development programs, environmental controls, rental land management and taxation issues.

Resource Function

In March 2010 the GTAAC completed an updated profile of the state of agriculture and agri business in the GTA. This, combined with previous profiles done in the GTA and in Hamilton and Niagara is a valuable source of data that can be used to understand and address trends and issues impacting agriculture in the Greater Golden Horseshoe.

Economic Development Strategy

To date, the actions of the GTA AAC have focused on primary production and local food. However the GTA AAC recognizes that, there is a much larger food related economic cluster in the GTA that is not well understood. It has decided to focus on developing a wider economic development strategy to take advantage of this cluster. Linkages between local producers and processers, locally based distribution systems and substitution of local product for imports are a focus of this program.

Marketing / Education

Large parts of the Greater Golden Horseshoe are urban focused. This is not unexpected given its population and structure. However there are real benefits to the region to having an active and healthy agricultural sector. Efforts should continue to provide locally based programs to introduce the urban community to the rural community, to promote local products and to emphasize the importance the agricultural community as an integral part of a "healthy sustainable community".

The GTA AAC has been successful in implementing these priorities. The GTA AAC with its broad based membership including all of the regions, the City of Toronto and the Holland Marsh has formed a partnership with Niagara and Hamilton to complete a strategy to support and promote the agri-food cluster in the Golden Horseshoe to 2021. Completion of this report is the first phase of completing this strategy.

Region of Halton

Achieving Sustainability – An Agricultural Strategy

As part of the update of the Regional Official Plan, Halton recognized that to promote an ongoing presence for agriculture, there must support for farming through a strategy to assist farmers. This strategy must be multi-faceted and must be focused on ensuring agriculture can provide a good economic return, that the "right to farm" is rigorously upheld, farmers are compensated for acting as environmental stewards and protected from land use conflicts that make farming difficult. To achieve this, the Region included policies in its recently updated Official Plan designed to support:

- An agriculturally focused economic development strategy;
- Protection of farmers' right to farm;
- Supportive infrastructure for farming ;
- Protection from conflicting uses;
- Flexible value-added / value retention policies;
- Innovative tax policies;
- Farm friendly environmental controls;
- Education about agriculture and its contribution to healthy communities;
- Local food programs;
- Marketing and promotion of local agricultural products;
- Access to land;
- Reasonable development controls;
- An agricultural facilitator;
- Reduced development charges;
- Venture capital for innovative agriculture;

- Support for new, young and immigrant farmers;
- Agriculturally related employment programs;
- Support for partnerships to harness new energy sources including co-generation;
- Compensation for environmental stewardship and wildlife crop damage;
- Provision to allow processing of bio solids;
- Realistic pesticide controls;
- Succession planning; and,
- Ongoing consultation with the farming community.

Although the updated Official Plan has not yet received provincial approval, the Region is taking steps to implement some of these goals.

City of Toronto

As one of the partners in the GTA AAC and in developing this strategy, the City of Toronto occupies a unique role. There is no rural area or agriculturally designated land within the city and the agricultural activity that occurs within its boundaries is largely on scraps of land scattered around the city. However Toronto is home to the largest cluster of agri-food businesses in Ontario and has long been an active supporter of the local food movement. Since its inception, representatives from the City have participated on the GTA AAC and have been effective in promoting the logical linkages that should exist between primary production, processing and access to local food for the largest concentration of population in the Country.

As stated on the Food Policy Council's website, "Toronto has long been at the forefront of public health initiatives and food security research. Toronto was one of the originators of, and among the first world cities to sign onto, the United Nations' Healthy Cities movement. In 1991, in the absence of federal and provincial leadership on food security, the City created the Toronto Food Policy Council (TFPC)"[11].

The mission of the Toronto Food Policy Council is to "partners with business and community groups to develop policies and programs promoting food security. Our aim is a food system that fosters equitable food access, nutrition, community development and environmental health".

The TFPC operates as a sub-committee of the Toronto Board of Health and has a wide ranging membership comprised of City Councilors, and volunteer representatives from consumer, business, farm,

labour, multicultural, anti-hunger advocacy, faith, and community development groups. The group has always worked to bridge the gap between consumers and producers and has created a body of excellent research regarding all aspects of food policy.

There is sometimes a bit of a disconnect between large scale agricultural producers and local food advocates. The issue of local food is complex and multi dimensional. Canada's climate and the nature of agriculture makes the expectation of relying totally on local food unreasonable. The volume of food required to feed large populations is such that a City the size of Toronto could not feed itself on products grown within its boundaries. The nature of international trade and the business models employed by large retailers creates huge challenges in putting Ontario products in Ontario stores. The Toronto Food Policy Council understands these issues. Being one of the first agencies to start addressing these problems they have assembled considerable research on this topic. Having them as part of the team developing this strategy for the Golden Horseshoe will provide access to their accumulated knowledge and ensure that urban consumer's perspective is understood.

The City of Toronto recognizes the importance of the food processing cluster within its boundaries and works actively to promote and support it. The City's Economic Development Department has a well developed food processing sector with staff dedicated to managing the cluster.

- *The Food and Beverage Cluster Specialist deals with the various issues and needs facing this industry. The cluster specialist develops partnerships with local businesses, governments and other stakeholders. Activities include:*
- *Expediting municipal issues relating to the expansion or retention of food and beverage processors. Working on your behalf in the City of Toronto will ensure that your business gets the attention it deserves.*
- *Consulting, education and intelligence services to companies and business associations in the food industry*
- *Building the capacity of business networks and associations such as the Toronto Food Industry Advisory Committee in order to support its members and develop innovative programs*
- *Developing, implementing and/or supporting significant cluster economic development projects such as Venturing into Food*
- *Providing access to international industry contact*[12]

In developing a strategy for the Golden Horseshoe to 2021, there are many lessons to be learned from Toronto. Having representation from the food processing component of the City's Economic Development Department provides a valuable resource.

7.4 Strategic initiatives

Agri-tourism and Local Food

Agri-tourism brings visitors to rural areas for recreation and purchase of products and experiences. Activities associated with agri tourism include purchases of farm-fresh foods at a roadside stand or farm market, picking your own products such as fruit or Christmas trees, attending winery tours and tastings, visiting a farmers' market, a country bed and breakfast or a fair.

The Golden Horseshoe is home to many rural businesses that are part of Ontario-wide and/or local themed tourism routes featured on websites designed to help visitors plan trips to the countryside or locate sources of locally-grown food and agriculture products. The businesses that have invested in being part of such routes are aligned with a common goal of attracting visitors.

Wineries - Ontario's wine route includes 67 grape wineries in Niagara and 3 in the Toronto/York areas.[11] There are 7 fruit wineries in the study area that are featured on the Fruit Wines of Ontario map.[12]

Niagara Culinary Trail – With many food-related businesses complimenting the wine route in Niagara, this map includes over 70 agriculture and culinary destinations divided into 5 distinct culinary areas.[13]

Farmers' Markets Ontario® – Of the 153 farmers' markets in Ontario that are featured on the Farmers' Markets Ontario website, 49 are located in the study area, with 19 of these being located within Toronto.[14]

Ontario Farm Fresh Marketing Association – OFFMA includes over 300 Ontario farms, about half of which are located in the study area. They are involved in direct farm sales, including on-farm markets, agritainment and pick-your-own operations.[15]

Hamilton Eat Local Farm Map & Directory – This locator features over 60 locations where locally-grown food can be purchased direct from the producer. It is a project of Hamilton Eat Local, run by Environment Hamilton in cooperation with other community partners.[16]

Durham Farm Fresh – Established in 1993, the Durham Farm Fresh Marketing Association features over 50 members on an interactive map and in other activities designed to help local producers and others committed to local food to market local products to the local community.[17]

Grown in Peel, Buy Fresh – This map and website helps citizens locate sources of locally-grown foods that are within a 45-minute drive of any location in Peel Region. The Peel Agricultural Advisory Working Group, Peel Federation of Agriculture, Peel Public Health, Region of Peel and Caledon Coun-

tryside Alliance, Town of Caledon and cities of Brampton and Mississauga have collaborated to produce this locator.[18]

York Region Farm Fresh – This initiative of York Region Tourism features an online Farm Fresh Map and Guide with a listing of pick-your-own farms and gardens within York.[19]

Toronto Food Policy Council – As one of the first cities to sign onto the United Nations' Healthy Cities movement, Toronto created its Food Policy Council in 1991. The TFPC is a sub-committee of the Toronto Board of Health, which partners with business and community groups to develop policies and programs promoting food security. The aim is a food system that fosters equitable food access, nutrition, community development and environmental health.[20]

Greenbelt Grown Cultural Foods Guides – The Toronto Environmental Alliance, Farmstart.ca, Access Alliance Multicultural Health and Community Services and Friends of the Greenbelt Foundation have partnered to make it easy for Torontonians looking for fresh cultural foods to identify the location of farmers, farmers' markets and food retailers selling fresh cultural foods in Ontario's Greenbelt and surrounding areas. Chinese, South Asian, Middle Eastern and African-Caribbean guides are available.[21]

In addition to the government plans and strategies, certain key players in the food and farming sector have also prepared and are implementing strategic plans.

Fifteen Year Comprehensive Strategic Plan for Ontario Apple, Tender Fruit, and Fresh Grape Industry (March, 2010)[22]

This strategy was developed by Vineland Research and Innovations Centre, Inc. to provide the direction and framework for the important decisions the Ontario Apple, Tender Fruit and Fresh Grape Industry will need to make going forward. It will also help identify the specific goals and areas for improvement that will be needed to compete in an increasingly global context. The strategy addresses the fact that, while fruit consumption in Ontario is increasing, Ontario producers' market share is declining. Ontario consumers and many retailers feel that Ontario produce is out-of-step with their expectations, and government support is not translating into a vibrant industry. Key trends that will influence consumption growth over the longer term include:

- Population growth in Ontario is forecast to grow from 13.0 million in 2009 to 15.66 million by 2025;
- Consumer demographics are driving increased focus on health and the link between fruit consumption and disease prevention; and
- Ethnographic shifts are driving demand among Ontario consumers for a wider variety of fruit and fruit-based products.

Other key trends the industry will be able to leverage include increasing consumer consciousness about environmental impacts, organics, health and wellness and "buy local" sentiments.

Ontario Agriculture Sustainability Coalition[23]

A coalition, founded in 2009, of the Christian Farmers' Federation of Ontario, Ontario Cattlemen's Association, Ontario Federation of Agriculture, Ontario Fruit & Vegetable Growers' Association, Ontario Grains & Oilseeds, Ontario Pork, Ontario Sheep Marketing Agency and Ontario Veal, to represent the united voice of Ontario's non-supply-managed commodities, to achieve bankable, predictable business risk management programs that work well for Ontario's non-supply-managed farming operations. This group's website states: in Ontario, farming sustains over 80,000 on-farm jobs and 718,000 jobs across the agri-food sector.

Alliance of Ontario Food Processors

The Alliance of Ontario Food Processors, working in conjunction with other processor organizations released a strategic plan in March 2008, which had as its major goals:

1. *To create more cooperative long-term relationships between processors and farmers aimed at maximizing the performance of the entire agri-food industry.*
2. *To help the Ontario government fully understand the contribution of the food and beverage processing industry and to achieve a better balance between those contributions and the policy attention and commitment that it receives from government.*
3. *Increase access to retain and foodservice markets in Ontario and outside by improving the industry's ability to work with customers and better meet their needs.*
4. *Create a regulatory environment that protects public safety but at the same time encourages innovation and supports Ontario's agri-food industry, a system that provides a level playing field for industry participants and minimizes the barriers to international and inter-provincial trade.*
5. *Revitalize Ontario's food and beverage processing innovation systems. Increase investment in productivity, new product R&D and support for commercializing new ideas and new products. Create a system that is focused on innovation, customer value, environmental sustainability and future opportunities.*
6. *To provide employees with the tools and to develop a workforce with the skills required to support the Ontario food and beverage processing sector.*[26]

Nation Food Strategy

In 2010, the Nation Food Strategy Committee released a strategy with mission to ensure that:

> "*Canada will be a leader in providing safe and nutritious food through a vibrant, competitive, responsive, and sustainable farming processing, distribution and sales sector".*[27]

Goals established as part of this plan include:

A. *Canadian grown, fresh and processed products are the first choice of Canadians.*
B. *Canadian grown fresh and processed products are the preferred choice of international markets.*

C. *Consumers choose foods and healthy eating patterns that promote optimal health.*

D. *Consumers always have access to safe and nutritious food.*

E. *The Canadian food chain is driven by its diverse, sustainable, innovative and profitable farm and food supply sector.*

F. *Canada's food chain capacity meets future demand in a sustainable manner.*

G. *Canada has a secure infrastructure to support the production, processing, distribution and sale of food in Canada and abroad.*

H. *Canada grows and provides green energy and other renewable products in balance with our food requirements.*

I. *Canada is a global leader in ensuring international agreements impacting food are based on science, sustainability, fairness, consistency and enforceability.*[28]

In formulating a strategy for the food and farming cluster in the Golden Horseshoe the work of others must be considered and factored in. Many of the goals and objectives are common and there is strength in numbers.

7.5 Food Charters & Buy Local Initiatives

The municipalities within Ontario's Golden Horseshoe each have taken their own approach to "buy local food" and/or food policy action initiatives. Citizen groups formed to create the various food charters/local food action plans/food policies that exist are driven by concerns in the area of human health, agriculture, food sovereignty, local economy/jobs, capacity in and local control of food processing, land use and environmental protection.

Public Health departments have also been working in the area of promoting local food consumption. The Government of Ontario's Chronic Disease Prevention Program Standards have set Mandatory Health Programs and Services Guidelines for local Public Health Units to *work with community agencies and groups to promote access to sufficient, safe, nutritious and personally acceptable food for people of all ages.* More recently, municipalities have been mandated by the Ontario Ministry of Health Promotion and Sport to create Healthy Living community partnerships with "Healthy Eating (access to healthier food/educate and develop food skills") as one of the 6 Priorities and Outcomes.[29]

The ripple effect of these local food initiatives is beginning to take hold. Toronto's Food Charter was adopted by City Council in 2000. In late 2008, Toronto City Council approved a local food procurement policy to pilot in 37 city daycare centres, with a plan to expand to nursing homes and homeless shelters; they also set 50% as the target for the amount of locally grown and produced food to be served through city programs. The plan targeted the amount of local food purchased for the city's child services department to rise to 40% within one year.

York Region Farm Fresh Association, organized through York Tourism, exists to improve the awareness and economics of agriculture in York Region by fostering more effective direct marketing via education of members, information gathering, generic promotion and lobbying for necessary changes. They issue an annual map and guide to locally-grown foods.

In Niagara, creation of a regional food action plan resulted in Regional Council choosing to demonstrate leadership in the broader institutional sector by reviewing its purchasing by-law for how it supports "Local Food". A Brock Community Observatory policy brief entitled *Niagara Food: It's Nutritious, Delicious and Available But We're Not Buying It….Why Not?* (March, 2010), points out a disconnect between the abundance of fresh, locally-grown fruits and vegetables in Niagara and the reality of rates of childhood obesity.[30]

The Durham Region Food Charter was endorsed by regional council in December 2009. A brochure about the charter promotes its benefits as being "food for all, thriving farms and a clean environment". A project of Community Development Council Durham, the Food Charter initiative is lead by the Durham Food Policy Council with funding from The Friends of the Greenbelt Foundation.

Halton's Choices 4 Health Network is a community coalition of over 250 individuals and organizations working together to create a Halton in which people achieve optimum health by choosing opportunities for healthy eating, physical activity, good mental health and smoke-free living. The network is funded by the Ontario Ministry of Health Promotion, community partners and the Halton Region Health Department.

Environment Hamilton has taken the lead in creating an Eat Local Farm Map and Directory that features 77 local farms, businesses and farmers' markets where consumers can buy local foods.

Peel Region recently created a partnership including the Region, its towns and cities, its Agricultural Advisory Committee, the local Federation of Agriculture and a citizens' countryside preservation group, all working together to raise awareness of the opportunities to buy locally-grown foods and the benefits of doing so.

7.6 Summary and Conclusion

The purpose of this chapter has been to provide an overview of the levels of government, agencies and groups involved in the discussion of agriculture and agri-food. This inventory is not intended to be all inclusive. Given the ongoing changes and the number of groups involved in this topic this would be impossible. What the overview was intended to demonstrate is that there needs to be a rationalization of organizations so those working in the sector can operate more efficiently. Stream lining, cooperating and reducing should all be addressed as part of the strategy to support agri-food in the Golden Horseshoe.

There are also a number of plans and strategies being implemented that will compliment the work proposed to support the Golden Horseshoe Food and Farming cluster. In developing the strategy those complimentary actions should be considered and factored in. Where possible the strategies should work together and build on each other; in no case should there be repetition or conflict.

1 See Appendix 1.

2 Planscape, Ontario Fruits and Vegetables; Fruit and Vegetable Production in Ontario's Greenbelt. September 2010. Pg 3.20

3 The Niagara Strategic Plan is discussed in Section 3.5.

4 Niagara Region official Plan , Amendment 6-2009, adopted in 2009. Part 2, Section 6.

5 "Securing a Legacy for Niagara's Agricultural Land, A Vision from One Voice", October 17, 2003.

6 Ibid Note - The Preservation of Agricultural Land Society (PALS) did not agree with inclusion of the mid peninsula corridor as a criteria.

7 PALS did not support this position.

8 "Securing a Legacy for Niagara's Agricultural Land, A Vision from One Voice", October 17, 2003

9 Niagara Agricultural Task Force, Request for Proposals July 13, 2005.

10 City of Hamilton, Agricultural Action Plan, Economic Viability for the Long Term, October 2009.

11 http://www.toronto.ca/health/tfpc_index.htm

12 http://www.toronto.ca/invest-in-toronto/food.htm

13 http://winesofontario.org/

14 http://www.fruitwinesofontario.ca/

15 http://niagaraculinarytrail.com/

16 http://www.farmersmarketsontario.com/

17 http://ontariofarmfresh.com/

18 http://www.environmenthamilton.org/eatlocal/

19 http://www.durhamfarmfresh.ca/home

20 http://www.peelregion.ca/scripts/gip/grown-map.pl

21 http://www.yorktourism.com/en/community/farmfresh.asp

22 http://www.toronto.ca/health/tfpc_index.htm

23 http://www.greenbelt.ca/node/1033

24 http://www.vinelandresearch.com/pub/docs/VRIC%2015-Year%20Strategy%20for%20Ontario%20Apples%20Tender%20Fruit%20Fresh%20Grape%20Industry%20-KG_May2010.pdf

25 http://www.oasc.ca/

26 Alliance of Ontario Food Processors, A Strategy for Ontario's Food and Beverage Processing Industry, March, 2008. Pgs 9 - 15.

27 National Food Strategy, A Framework for Securing the Future of Food. December 2010, pg 3.

28 Ibid., pgs 6-11.

29 http://www.mhp.gov.on.ca/en/healthy-communities/hcf/Framework-2010-2011.pdf

30 http://www.brocku.ca/nco/files/Policy_Brief_Food_Final.pdf

Chapter 8—The Health Value of Locally Grown Foods in Ontario's Golden Horseshoe

The health value of locally-grown foods in Ontario's Golden Horseshoe is an important consideration in creating an overall strategy for the region's food and farming sector.

8.1 What is Healthy Food?

Rather than referring to specific foods as being "healthy" versus ones that are "unhealthy"; nutrition professionals refer to "healthy eating", which is based on nutrition research, how much we eat of a food, how often, what our life cycle nutrient needs are, and what else we consume with that food.

Health Canada's *Eating Well with Canada's Food Guide (2007)* recommends that Canadians eat well and be active for optimal health.[1]

A balanced diet based on the size and number of daily servings recommended in the Guide's four food groups (Vegetables and Fruit, Grain Products, Milk and Alternatives and Meat and Alternatives), along with the Guide's tips for active living will help individuals meet their needs for vitamins, minerals and other nutrients; reduce their risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis; and contribute to their overall health and vitality.

Health Canada's Office of Nutrition Policy and Promotion completed two environmental scans in 2009: Defining "Healthy" and "Unhealthy" Foods: An International Review; and Defining "Healthy" Foods: Environmental Scan of the Situation in Canada. These scans focused on international positions on what foods should be able to carry health claims, what foods should be marketed to children, and what foods should be served in schools? The conclusion from the international scan was that the work being done is disjointed and has resulted in a variety of definitions of "healthy" vs "unhealthy "food. More effort will be required to arrive at an international protocol for labeling healthy food choices. With respect to the scan of the situation in Canada, the general finding was that:

> *A variety of policies and programs exist in Canada that use nutrition criteria to define "healthy" foods in a number of venues, including 15 provincial nutrition policies; at least 20 local school board nutrition policies; eight front of pack labeling programs in grocery stores, seven food services programs and six vending machine programs in schools and recreation centres. A significant number of stakeholders identified the lack of standardization of these different approaches as a key issue and indicated that they would like to see standardization at least within specific applications.*[2]

The most common applications of government-lead messaging around "healthy" and "unhealthy" foods have been for foods served in schools, in the management of food regulations for disease risk

reduction claims, and for point-of-purchase labeling.[3] However more work needs to be done to harmonize and simplify labeling and categorization of "healthy" vs. "unhealthy" food.

Unfortunately the issues related to food labeling and regulation go beyond potential improvements in the system. In a recent study conducted by the MacDonald –Laurier Institute, Health Canada's current regulatory and labeling system was identified as a major impediment to innovation in developing and promoting healthy safe food.

> *It is a fundamental requirement that Canada's food sector and the regulatory bodies that govern it deliver safe foods for Canadians and consumers abroad. It is also a fundamental requirement that the regulatory system be operated such that those who supply products can do so efficiently and are encouraged to innovate, including innovations of healthy, safe food products and production practices.*
>
> *Many studies have shown that, unfortunately, the current regulatory system administered by the Health Canada/CFIA bureaucracy is a burdensome cost and a tax on innovation in the agri-food sector. Decisions on regulatory applications in Canada can take three to five times as long as in competing countries. Because Canada is a relatively small country, this discourages companies from introducing products in Canada and makes Canadian producers and processors higher cost than their competitors. These delays produce no discernible benefit in safety, but do create a huge difference in costs for a country relatively small in terms of the size of the potential market. The result is a net flight of research from Canada, as well as an increasing gap in the ability of farmers, food companies, and consumers to produce and acquire safe, efficient, and effective products.*[4]

Labeling and regulation is not the only issue associated with efforts to improve the eating habits of Canadians. A 2005 synthesis document in the Canadian Journal of Public Health took a look at the forces that influence our eating habits, with a review of published literature on the determinants of healthy eating[5] .This document points out that several issues need to be better understood in order to address healthy eating issues in Canada. These include effects of advertising and media on nutrition knowledge and perceptions, as well as the relationship between socio-economic status and diet. The document cites Health Canada as being "committed to working with its partners to build such a comprehensive research agenda".

8.2 The Healthy Eating Opportunity for Locally-Grown Foods

Overall strategies recommended by nutrition professionals for individuals striving to eat healthy include: limiting sodium intake as well as consumption of saturated and trans fats; consuming a primarily plant-based diet containing lots of vegetables and fruits, and eating a diet rich in fibre. Limiting consumption of highly-processed foods is also important.

These recommendations, in parallel with consumers' positive quality perceptions about local foods[6], environmental concerns around the carbon footprint of imported foods, and increased awareness of the economic and social capital benefits of buying foods grown nearby are helping to drive opportunities for direct-to-consumer and branded product sales of fully-traceable farm-fresh foods.

The Dieticians of Canada (D of C) invited Canadians to celebrate local foods during their 2010 Nutrition Month campaign. According to D of C, being a locavore, which they define as someone who chooses locally grown or produced food in season, is a challenge during the winter months.[7] D of C recommends taking advantage of the local harvest in the warmer months to eat delicious, nutritious fruits and vegetables every day, and to freeze, can or preserve them for a year-round supply of locally-grown produce. They also point out that choosing locally-produced meat, dairy and grain products may be easier to do throughout the year.

The Dieticians point out a common misconception that exists around locally-grown fresh produce is that it is always the most nutritious option, saying that crop variety, growing conditions, ripeness, storage, processing, handling and transport factors all affect the nutrient levels in fruits and vegetables. In fact, sometimes frozen or canned fruits or vegetables can retain more nutrition value as they are usually harvested and packed when nutrients are at their peak.

8.3 The Link between Healthy Eating, Chronic Disease Prevention & Reduced Health-Care Costs

The Ontario Chronic Disease Prevention Alliance (OCDPA), a collective voice on effective Chronic Disease Prevention policy and programming, has identified *Unhealthy Eating* as one of 5 chronic disease factors, along with *High-Risk Alcohol Consumption, Physical Inactivity, Poor Mental Health,* and *Tobacco Use/Exposure* (OCDPA, April 2010).[8]

Currently, there are 10 core partners of the Ontario Chronic Disease Prevention Alliance:

- Association of Local Public Health Agencies (Ontario)
- Canadian Cancer Society (Ontario Division)
- Canadian Diabetes Association
- Cancer Care Ontario
- Centre for Addiction and Mental Health
- Health Nexus
- Heart and Stroke Foundation of Ontario
- Ontario Physical and Health Education Association
- Ontario Public Health Association
- Osteoporosis Canada

Referring to the cost of unhealthy eating, OCDPA states:

> *"Unhealthy eating is a key modifiable risk factor for chronic diseases that plays a major role in morbidity, disability and premature death in Canada. The economic burden of unhealthy eating has been estimated at $6.3 billion in Canada each year, including direct health care costs of $1.8 billion (Health Canada, 2000).*
>
> *The benefits of healthy eating include lower risk of chronic diseases including type 2 diabetes, heart disease and hypertension, and certain cancers; lower risk of overweight and obesity; and lower risk of micronutrient deficiencies (Health Canada, 2007d). Furthermore, individuals who eat healthy foods are more likely to lead longer, healthier lives.*
>
> *In addition, poor eating habits and physical inactivity along with many other factors contribute to the rising rate of overweight and obesity in Ontario. Annually, obesity costs Ontario $1.6 billion including $647 million in direct costs – such as hospital care, pharmaceuticals and physician services – and $905 million in indirect costs – such as lost earnings due to illnesses and premature deaths associated with obesity (Katzmarzyk & Janssen, 2001).*

OCDPA encourages the following system level changes occur to address the Healthy Eating challenge:

Ensure access to adequate, nutritious, safe, and culturally appropriate foods for all Ontarions:

- *Increase the availability of healthy foods and food choices (i.e. food for the four food groups in Canada's Food Guide) in schools, workplaces and public facilities and limit food and beverages high in calories, fat, sugar or salt.*
- *Ensure access to nutritious food for all Ontarions by using the cost of the "Nutritious Food Basket" (calculated annually by each Public Health Unit) in determining the rates for social assistance and the minimum wage and in the formulation of ODSP/Social Assistance payouts.*
- *Encourage community planning, zoning and funding which supports healthier food choices, develops and promotes the local food sector, and reduces access to unhealthy food choices, particularly in low-income communities.*
- *Provide opportunities for individuals to develop food selection, food preparation and food safety skills in school and community settings.*

8.4 Community Health and Food Access

Research around social determinants of health identifies lack of access to fresh, locally-grown foods as one reason for poor health in lower-income communities, with factors being grocery store gaps, lack of good transportation, lack of choice and cheaper foods being high in calories and fat. Some reports cite the potential for farmers' markets to become a kind of 'community commons' where consumers and farmers build relationships with residents learning about rural life and nutritious preparation ideas from the people who grow the food.[9]

Other sources highlight integrated urban planning and public policy within the context of sustainable development as being important tools to improve citizen access to fresh local food. Montreal Department of Public Health officials suggest food access improvement requires a collaborative process involving citizens and stakeholders from municipal, commercial, social and private sectors, whose common goal is to find long-term solutions to healthy food access in underserved communities.[10]

Community gardens and urban agriculture are also suggested as solutions for urban citizens to increase their access to locally-grown foods while increasing a sense of pride and belonging in the neighbourhood.[11]

8.5 Food Security

There are two components to food security which affect all aspects of the agri-food cluster:

1. Food security in the context of access to a secure source of food for a population; and
2. Food security in the context of access to food grown under controlled circumstances that ensure it is safe for human consumption.

Not only can Canada lead the world in fulfilling these requirements; both aspects of food security can be supported by food production the Golden Horseshoe.

Food security is cited as a key factor in individuals' health-shaping living conditions. Aspects of food security include having an adequate diet in terms of quality and quantity, being able to acquire food in socially acceptable ways, and being able to acquire adequate nutrition intake. It is estimated that about 9 per cent of Canadian households, representing 2.7 million Canadians, experience food insecurity. These people consume fewer servings of fruits and vegetables, milk products and vitamins than those in food secure households.[12]

Canada's National Action Plan for Food Security (1998) states *"Food security exists when people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"*. This plan was developed as a result of Canada's involvement in the 1996 World Food Summit held in Rome.[13]

This national plan addresses issues of:

- right to food;
- reduction of poverty;
- promotion of access to safe and nutritious food;
- food safety;
- traditional food acquisition methods of Aboriginal and coastal communities;
- food production (supporting sustainable resource development, investing in and building research capacity, and encouraging investment in rural areas);
- emphasis on environmentally sustainable practices;
- fair trade; and
- acknowledgement of peace as a precursor to food security.

In 2009, the Vancouver Food Policy Council issued a study of how to define and measure food security. In it they updated the definition of food security to be more practical and reflective of today's societial realities.

> *Food security is achieved when the structure and capacity of the food system is resilient and adaptive and can meet the food related human, cultural, economic, social and environmental needs of the individual and community.*[14]

They defined the three primary determinants of a secure food system:

1. ***Affordability:*** *The ability of individuals to afford food is directly related to both the level of income, and the price of food. Affordability speaks directly to the accessibility component of food security. The food may be available, acceptable, and adequate, but the individual must be able to have the financial resources to access it.*

2. ***Knowledge:*** *Understanding the relationship between nutrition and health is a critical component affecting the food security status of individuals. A major concern particularly with respect to young people has been the consumption of fast foods with low nutritional value, leading to a range of diseases such as diabetes, and leading to other later life chronic diseases. Being able to afford adequate quantities of food does not lead to a food secure system if poor choices are being made on food nutrition or if the food system is systematically providing incomplete information to make good food choices.*

> *3. **The Food System**: The other main issue that directly affects the food security status of cities and individuals is the food system that produces, manufactures, distributes and markets food. If the system is not able to make food available, accessible, acceptable and adequate, the status of food security will be compromised. Critical elements of the food system are the land and sea-based resources and food producers that are the underpinnings of the local (or any) food supply. Further, this food system will be required to adapt to dynamic forces, such as climate change, fluctuating productivity of the resource base, and the availability/affordability of agricultural inputs, that will affect its ability to continue to produce food over time.*[15]

While sometimes used interchangeably with the term "food security", *food sovereignty* refers to communities being able to self-determine local food and agriculture systems, so that they are sustained for the present as well as for the benefit of future generations.

The *2007 Declaration of the Forum for Food Sovereignty* was written as the result of a gathering in Selingue, Mali that included more than 500 people from 80 countries. The forum addressed the worldwide movement for food sovereignty, with the goal of protecting local food producing knowledge and capacity, in light of economic globalism. Individuals and group representatives at the forum included indigenous peoples, family farmers, rural workers, forest communities, environmentalists and citizens involved in urban movements. A major focus was building on local agricultural heritage and knowledge as well as capacity to produce healthy, good and abundant food.[16]

This 2007 Declaration defined food sovereignty as follows:

> *Food sovereignty is the right of peoples to health and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers and users. Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal – fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just incomes to all peoples as well as the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social and economic classes and generations.*[17]

Canadian farmers have long been concerned about the need for Canada to have greater control over what proportion of the food produced, purchased and consumed by Canadians is actually grown here in our country. Farm groups have an established track record of lobbying for domestic policies which encourage robust agriculture and agri-food production, processing and associated services, to help boost the economy, protect the environment and provide an accessible high-quality, safe, nutritious, sustainably-produced food supply for local and export markets.

It is in farmers' best interest, and that of their customers, to protect the environment in which they live, work, and from which they earn their living. A fact well-known in agronomic circles, but not widely-recognized is that Ontario farmers have a reputation for pioneering farmer-driven environmental stewardship initiatives and methods. Crop rotation, cover crops and reduced tillage or no-till methods are widely used, to increase soil organic matter and minimize soil erosion. Over 30,000 Ontario farm families have voluntarily created an Environmental Farm Plan (EFP) for their farm since this program launched in 1993. EFP's identify areas of environmental risk on each farm, and includes a practical action plan to mitigate risk.[18]

All Ontario farmers purchasing and/or applying agricultural pesticides must be trained and certified through the farmer-requested Ontario Grower Pesticide Safety program.[19]

2008 Ontario Ministry of Agriculture, Food and Rural Affairs statistics show that Ontario farmers have reduced agricultural pesticide use by 45% in the past 25 years. This has been achieved through grower education, use of integrated pest management techniques, and investment in new technologies.[20]

This history of good farm practices has allowed Canada to protect its agricultural resource; most importantly its soils. This is not the case around the world. In many parts of the world, soils are badly degraded.

> *Along with land, healthy soils are not distributed evenly around the world. Perhaps more importantly, many of the world's soils have been badly degraded. This includes much of Asia and Africa, the areas where demand for food is increasing rapidly. These soils have lost quality, productivity, and utility due to erosion, desertification, and/or significant use of chemicals instead of organic matter to try to improve their productivity.(…) Canada has suffered less from this than most other countries. Canada has some of the most stable soils in the world – another significant advantage in its ability to take advantage of global market trends. ((…) Canada's use of nitrogen fertilizers and pesticides are lower than some of its competitors and potential customers – hence ensuring that the soils remain healthy for future agricultural production.*
>
> *The trend toward soil degradation means that it will be difficult to maintain soil fertility with current practices. The converse is that future technology will need to include processes to enhance soil fertility as well as to coax ever-increasing yields from our soils. Again, Canada's favourable position further underlines the potential role that Canada can play in an increasingly hungry world.*[21]

In 2009, the Ontario Federation of Agriculture and Canadian Federation of Agriculture began a process to create a National Food Strategy for Canada. Players in Canada's food chain, from primary production, input, distributors, processors, retail and consumers are all involved in the process, which will be complete by July 2011.

According to the National Food Strategy website, the strategy is being developed because *"…Canada currently does not have a long-term vision for the agriculture and food sector. Such a long-term strategy will provide citizens with the secure understanding that, by managing our food system sustainably, we will be able to feed ourselves and contribute to the world's future food needs. It is hoped that the Strategy will help Canada to protect our own food source and all those involved in the food chain, as well as considering our international responsibilities."*[22]

The Mission of the National Food Strategy is: *Canada will be a leader in providing safe and nutritious food through a vibrant, competitive, responsive and sustainable farming, processing, distribution and sales sector.*[23]

There are nine strategic objectives for the National Food Strategy:

1. *Canadian-grown, fresh and processed product will be the first choice of Canadian consumers.*
2. *Canadian-grown fresh and processed product will be the preferred choice of export markets.*
3. *Consumers will choose foods that lead to a healthy lifestyle.*
4. *Consumers will always have access to safe and nutritious food.*
5. *The Canadian food chain will be driven by its diverse, innovative and profitable farm and food supply sectors.*
6. *Canada's food chain capacity will meet future demand in a sustainable manner.*
7. *Canada will have a secure infrastructure to support the production, processing, distribution and sale of food in Canada and abroad.*
8. *Canada will grow and provide green energy and other renewable products in balance with our food requirements.*
9. *Canada will be a global leader in ensuring international agreements impacting food are based on science, fairness, consistency and enforceability.*[24]

Evidence is mounting that the current spotlight on locally-grown foods is more than just a trend. Food safety scares associated with internationally-sourced ingredients, concerns about environmental, carbon footprint and peak oil, the global recession, our aging population and mounting public health care costs are major factors that have lead to many citizens perceiving increased value in foods that are fresh, locally-grown and traceable. Along with this, an increasing number of consumers are interested in opportunities to connect with and better understand the farmers growing their food.

In the past decade, community groups within each of the Golden Horseshoe regions have initiated food charter and/or local food action groups designed to link farmers and consumers, with food security and food sovereignty concepts in mind. These initiatives are profiled in section 2.10 of this report.

Partnerships are critical in the development and enhancement of local food initiatives. As noted by the Metcalf Foundation:

> *(…) there are hundreds of people who are actively working to promote local sustainable food in Ontario in a variety of capacities, from community garden organizations to farm inspectors to local economic development officers. Because most are working at a very local grassroots level and because there is so much work to do, many of them are unfamiliar with all of the people who are working on similar or related projects whose efforts might compliment their own. There is a need to connect the dots between key actors and to capitalize on the pool of energy available in Southern Ontario to bring about system-wide change.*[25]

There must be a realistic assessment of the ability to provide local food. The aim of future partnerships should be to provide local food first and use non local sources to fill gaps as needed to allow seamless delivery.

Food Link[26], a Waterloo Region initiative that takes a community systems approach to local food security, is seen as a Canadian pioneer in the area of food security. Food Link's effectiveness can be attributed to several factors, including: use of research to inform planning, enlistment of community-wide support and partnerships, consumer education about local food, taking a business/marketing approach, and engagement of public decision-makers in the process of evolving the initiative.

Farmers' markets are a leading source of locally-grown products. Farmers Markets Ontario states that the number of farmers' markets in the province has doubled from 60 in the 1980's to 120 today. A 2009 national survey by Farmers' Markets Canada interviewed 3,174 farmers' market shoppers, 1,308 non-users, as well as vendors and market managers. The survey reported 28 million shopper visits to Canadian farmers' markets annually, generating $1.08 billion in annual sales. For 62% of the shoppers surveyed, farmers' markets are the second most popular place to shop, after big box grocery stores. The number one reason people cited for not shopping at farmers' markets was not having one located conveniently near their home. Seventy-five percent of the shoppers surveyed are regulars at their local market, who shop there one to four times a month.[27]

The Ontario Farm Fresh Marketing Association[28], founded in 1973, is an education and promotion organization consisting of over 300 Ontario farm families involved in direct farm sales, including on-farm markets, agritainment and pick-your-own operations. OFFMA has completed studies that help

inform its members' business planning activities, including:

2005 – an analysis of the impact of on-farm marketing on Ontario's rural economy and its importance to the future of the family farm; and

2008 - insights into opportunities for Ontario farm marketers, via an update on customers' on-farm experiences, to understand relevant trends and business strategies (survey respondents included farm market customers, OFFMA members, and non-user customers who had not shopped at OFFMA member businesses in the past two years). This study also included an economic impact analysis of on-farm markets in Ontario.

Based on this data collected by Experience Renewal Solutions Inc. in 20081 the estimated level of economic activity associated with farmers' markets in Ontario on a yearly basis was estimated to be, approximately $792 million. Research showed that this level of activity translates into ***a provincial economic impact of more than $2.47 billion dollars*** *including direct, indirect and induced economic impacts of$400,855,035, $1,115,520,627, and $956,315,155 respectively. In addition, these activities are estimated to generate (on an annual basis) nearly $593 million in labour income, nearly 21,000jobs and nearly $1.27 billion in Gross Domestic Product (GDP) across Ontario.*[29]

OFFMA members' sales have increased in the past couple of years, and they report successfully attracting a broad ethnic customer base. Fruits, vegetables, baked goods and agritainment are the top four products purchased.

A 2009 Gandalf Group survey[30] of 1,627 Canadians found that "local, natural and unprocessed foods emerged as the most motivating attributes for consumers when they are assessing the healthiness of food", adding that local foods' increased prevalence in grocery stores and on restaurant menus is seen as a positive development by more Canadians than any other development in food. The researchers also noted that "consumers appear to be feeling that local foods give them similar protection as organic foods", and that "retailers that are moving toward local farming are tapping into a very powerful consumer sentiment".

Predicting that food prices will increase substantially in 2011, Sylvain Charlebois, a food distribution and policies researcher at the University of Guelph says that evidence shows Canadian consumers are changing their spending behaviour "to favour nutrition over access". He reports that retail sales for food-specialty stores increased by 10 per cent in 2010, while convenience store purchases decreased by more than four per cent. "Consumers are recalibrating their budgets and purchasing habits, apparently sacrificing convenience for the sake of nutrition and gastronomic adventure".[31]

8.6 Summary and Conclusions

From an economic, social capital and chronic disease prevention point of view, the Province of Ontario and the municipalities within Ontario's Golden Horseshoe and Holland Marsh areas have much to gain by promoting healthy eating habits based on locally-grown foods and beverages, and equitable access to these products.

As well as direct farm and farmers' markets sales, a compelling case could be made to engage mainstream food retailers in a collaborative process that leads to viable business opportunities around helping customers increase access to locally-grown foods, to enhance citizen's health, and at the same time help the province to reduce health care costs.

Making the case for a regional marketing initiative to encourage more sales of Golden Horseshoe-grown foods to benefit the health of Ontario citizens would require full economic analysis, taking into consideration market opportunities, effective methods to produce for and supply to target markets, and other factors required for economic sustainability.

Given its population concentration and diversity, Ontario's Golden Horseshoe and Holland Marsh could position itself well as a preferred source for local food products. Ontario agriculture's overall reputation for environmental stewardship, food safety, quality and family farming tradition are valuable brand attributes.

Realizing the local food opportunity and its associated social, economic, environmental and physical health benefits will require governments at all levels being committed to playing a pivotal role. Integrated planning that prioritizes healthy communities and policies that incentivize development of local food economies based on local production and processing, with a distribution link to local consumers will be the key.

Processors and major food retailers will also have to be active partners in the drive to maintain the study area's capacity for agri-food production. As research is beginning to show, a significant business opportunity exists for processors and retailers to create fully-traceable, healthy local food products, marketed through dedicated specialty retail store sections. Indeed, local food appears poised to eclipse the market for organic foods.

Juha Mikkanen and Dennis Raphael, authors of *Social Determinants of Health: The Canadian Facts* state, "Improving the health of Canadians is possible but requires Canadians think about health and its determinants in a more sophisticated manner than has been the case to date." Just as these health researchers call for us to think about the links between food insecurity, poverty and health from a

higher-level perspective, so should governments set policies to help secure the wellness-boosting qualities of the capacity within Ontario's Golden Horseshoe and Holland Marsh to produce locally-grown and processed foods. This would be is in the best interest of the area's citizens, communities, economy and environment.

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3 http://www.hc-sc.gc.ca/fn-an/nutrition/pol/index-eng.php

4 Martin Larry, and Kate Stiefelmeyer, "Canadian Agriculture and Food , A Growing Hunger for Change". The MacDonald –Laurier institute, October 2011, pg 43.

5 http://www.hc-sc.gc.ca/fn-an/res-rech/res-prog/eat-aliment/cjph-ssrc-eng.php

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14 Serecon Management Consulting Inc., and Zbeetinoff Agro-Environmental Consulting Inc., Food Secure Vancouver, Baseline Report, March 2009, pg ii.

15 Ibid., pg iii.

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19 http://www.opep.ca/growertraining/GrowerTraining.htm

20 http://www.omafra.gov.on.ca/english/crops/facts/pesticide-use.htm

21 Martin Larry, and Kate Stiefelmeyer, "Canadian Agriculture and Food , A Growing Hunger for Change". The MacDonald –Laurier institute, October 2011, pg 21.

22 http://www.nationalfoodstrategy.ca/

23 National Food Strategy, A Framework for Securing the Future of Food. December 2010, pg 3.

24 Ibid., pg 6-11

25 Metcalf Foundation, Food Connects Us All Sustainable Local Food in Southern Ontario, February 2008, pg5

26 www.foodlink.ca

27 http://www.farmersmarketscanada.ca/Upload/file/FMC%20FINAL%20Brochure%202009-ENG.pdf

28 www.ontariofarmfresh.com

29 Regional Analytics and Planscape, Economic impacts of Farmers Markets in Ontario, March 2011, pg i.

30 www.consumerology.ca

31 http://www.leaderpost.com/business/Prepare+more+food+2011/3978525/story.html#ixzz1AU5rXmWj

Chapter 9—The Nature of Clusters

9.1 Introduction

Professor Michael Porter of Harvard University popularized the notion of economic clusters, and specifically the notion that cluster formation in space conveyed advantages to those regions that housed clusters relative to those that did not. A cluster is considered to be a geographic concentration of interconnected businesses and institutions that, through a variety of synergies[1], is able to produce a given good or service (or range of goods or services) in a cost competitive fashion. Specific locations, as a result, become known for particular goods and/or services.[2] While Porters ideas are far from simplistic, the notion of efficiencies flowing from agglomeration in space (i.e., the formation of local industrial complexes) has been at the heart of the traditional economic geographic explanations of the agglomerative behavior of firms for decades.

One of the more prominent components of the cluster theory of regional economic growth and change, that clusters facilitate knowledge transfer and innovation, can be traced back to Marshall's early work on Industrial Districts in the 1920s. Even so, it was Professor Porter's work that touched off a ground-swell of work oriented around attempts to discern how clusters work, why they are successful, how they form, and what, if anything, can be done to stimulate their development. This literature has contributed considerably to our conceptualization of the processes of regional economic growth and change. Indeed, Canada's current focus on Centres of Excellence to promote technological innovation through synergies between private industry and university researchers is to some extent based on the Porterian view of spatial economic growth and change.[3]

In what follows, we will attempt to answer the following questions:

1. What are clusters?
2. What characteristics define a healthy/robust food cluster?
3. How does the study region's food cluster fair when compared to this list?
4. Suggestions for the governments re aiding the continued growth and development (and long-term health) of the food cluster.

9.2 Definitions

9.2.1 Clusters

Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region. Clusters arise because they increase the productivity with which companies can compete.[4]

9.2.2 Cluster development

Cluster development aims to improve the performance and efficiency of the sector as a whole. This involves measures promoting cooperation to achieve economies of scale, strengthening state and private institutions, mobilizing local capital or promoting joint learning and innovation processes.[5]

9.3 Significance of clusters and policy support

Delgado et al (2010)[6] have evaluated the role of regional cluster development in economic performance of the industries, clusters and regions using the data gathered in the Harvard School of Business US Cluster Mapping Project. They found that "industries participating in a strong cluster register higher employment growth as well as higher growth of wages, number of establishments, and patenting. Industry and cluster level growth also increases with the strength of related clusters in the region and with the strength of similar clusters in adjacent regions." They also found evidence that "*new* industries emerge where there is a strong cluster environment" and that "presence of strong clusters in a region enhances growth opportunities in *other* industries and clusters. … A strong cluster will enable greater agglomeration economies, including larger pools of skilled employees, specialized suppliers, related industries, sophisticated buyers, and intense local competition. Proximity of related economic activity can also reduce transaction costs, enhance knowledge transfers and the flow of information, and induce the growth of specialized local institutions such as educational programs, trade groups, and quality or certification organizations that reinforce the complementarities across related industries."

They found that strong regional clusters enhance opportunities for job creations in other activities, as well as have a positive influence on the average wage, investments in other establishments, entrepreneurship (new firms) and innovation (e.g., the rate of patenting). Thus, a strong cluster environment surrounding a particular region-industry should enhance growth in the region itself driving productivity and job creation, investment, and innovation.

Neighbouring regions can also contribute to and benefit from strong cluster development. Thus, regional policy needs to support and be supported by broader federal/provincial/state policy, i.e., the lumber industry in B.C. affects the construction industry in Toronto, and the potash industry in Saskatchewan affects agricultural production in Durham region.

Delgado et al (2010) put forth the following two main policy implications.

1. "*Effective regional policy should harness complementarities across related economic activity rather than prioritize high-wage or high-tech clusters where there is little pre-existing strength within the region. Hence policy makers should pursue policies that leverage a region's cluster strengths.*

2. Second, regional economic performance depends crucially on the composition of economic activity rather than the vagaries of political boundaries. The spillovers arising from related economic activity typically span multiple jurisdictions (and even states). Policies aimed at shifting the location of activity within narrow areas will be much less effective than those which operate to harness complementarities across jurisdictions."

In other words, policy needs to support the strengths of an industry (e.g. through supporting infrastructure and transport, economic support for the industry itself and complementary industries, communications, training, research and development), rather than trying to recreate an industry where it has limited chance of survival (e.g. cucumbers in Newfoundland).

9.4 Elements of a Successful Business Cluster

The initial clustering effect (agglomeration) of a particular group of industries, particularly if they are primary resource related, is most often driven by geography of supply and demand – where something is produced and where/how it is sold (the market). Successful clusters may result from a particular specialization in a region where there are shared knowledge and resources (e.g. the orchid production cluster in Singapore, or specialty cheese production in Quebec), or "exploiting the overall diversity of industries in an entire regional economy" (e.g. the European Union Food Innovation Network, or the agri-food business cluster in the greater Montreal area and wider Quebec region).

Economists have highlighted three main drivers of cluster development beyond the initial "economic geography":

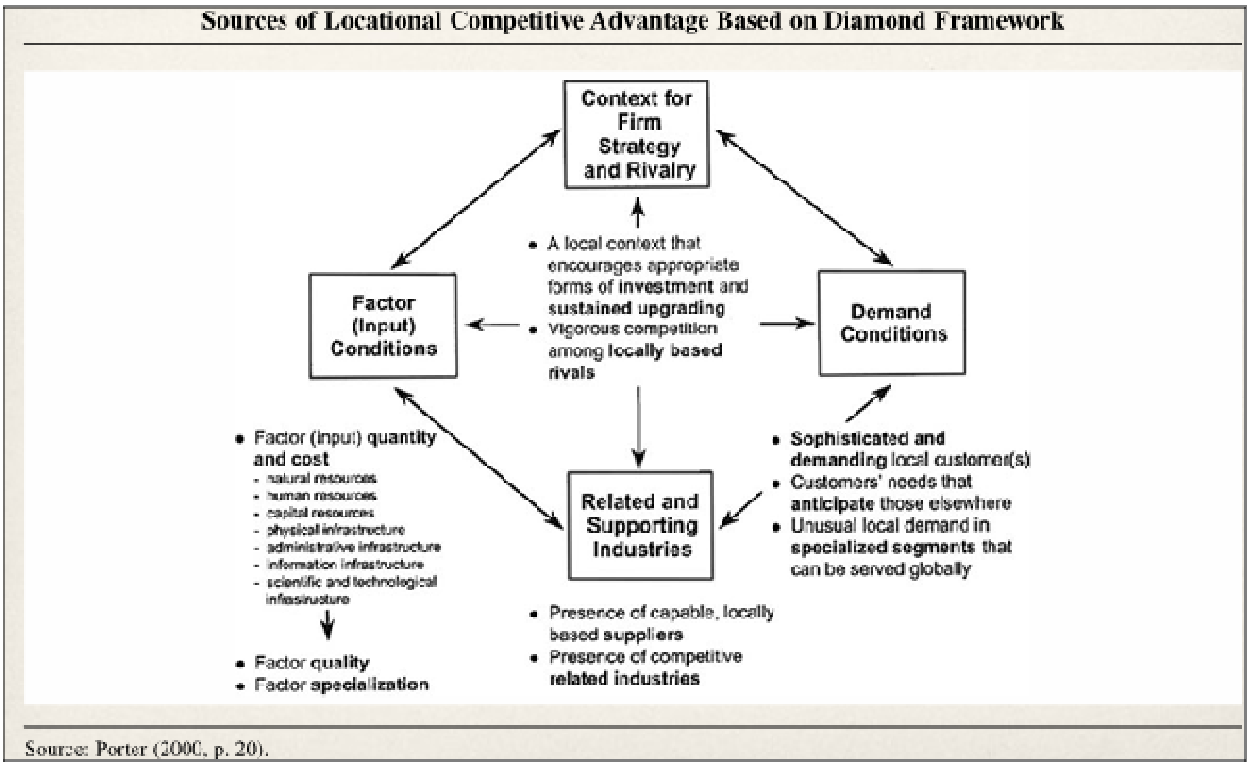
- Input-output linkages (specialized suppliers, large or advanced customer base, producers of complementary products and services)
- Labour market pooling, and
- Knowledge spillovers (Delgado et al 2010).

In other words, successful cluster development consists of a collective, cooperative effort in bringing together people (industries), ideas, and enabling infrastructure.

Steiner and Ali (2009) provide an excellent discussion of economic clusters and specifically how and why they function in the context of food production. They bring together leading edge research from top scholars internationally to discuss the concept of economic clusters and to comment specifically on existing evidence vis-à-vis the "food cluster"[7].

Figure 9.1 presents the famous 'Porter Diamond', which gave a fresh face to work that had been taking place in the fields of Regional Economics and Economic Geography for decades. This work was motivated by the desire to explain the spatial distribution of economic activity. Why do economic activities tend to cluster? Why do those places with clustered economic activity perform better than those places without clustered economic activity?[8] Indeed, it was the realization of these patterns that drove

Figure 9.1—Porter's Diamond



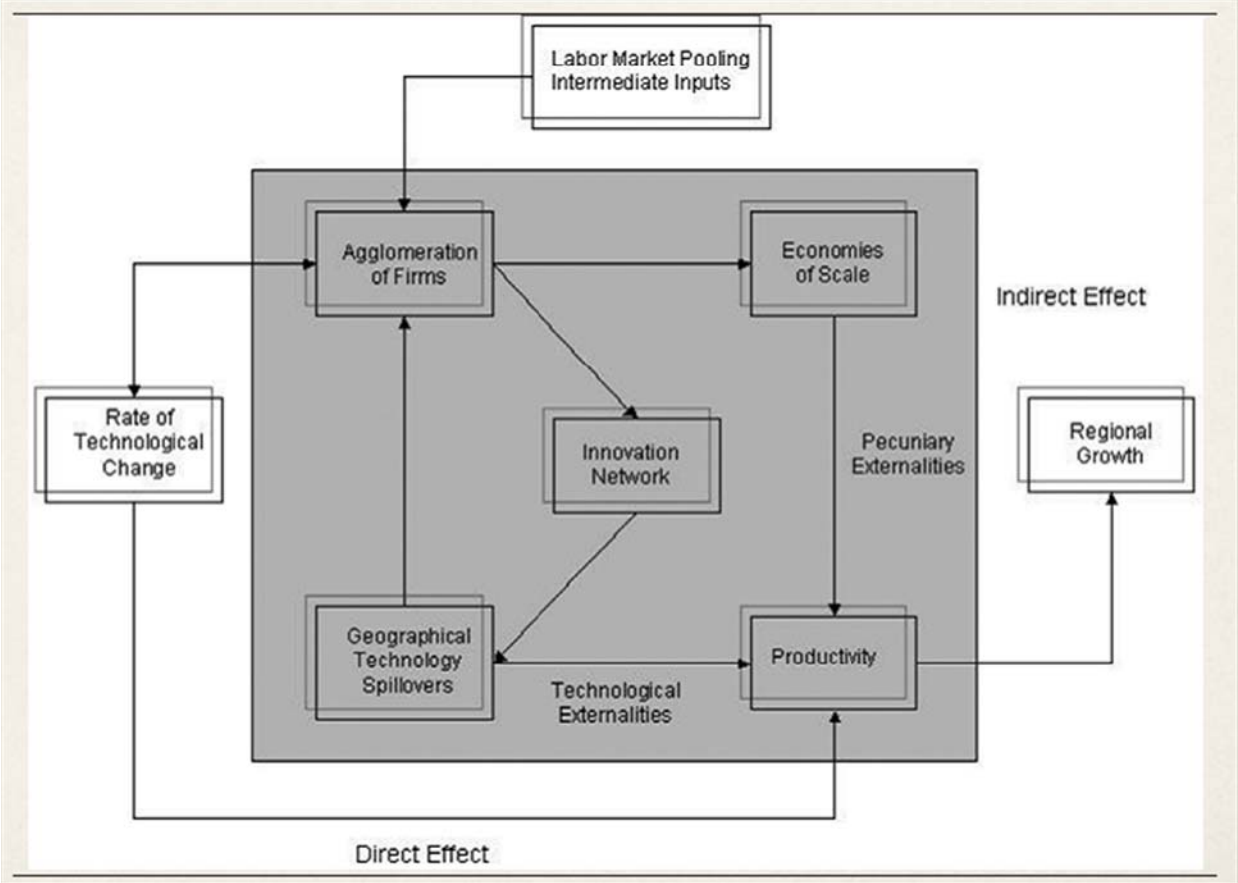
Porter's diamond, in a nut shell, is meant to convey the fact that economic growth and development at a given location is dependent on the endowment of that location in terms of demand conditions, related and supporting industries, favourable factor conditions (e.g., available pool of skilled labour, venture capital, etc.), and a local context of competitive rivalries between firms in the same or similar industries that initiates and sustains labour mobility and the constant search for new knowledge. Porter's Diamond also serves as a conceptual framework to help understand why economic growth, wealth and population seem to be rushing toward the largest urban regions globally at the expense of the periphery. That is to say, the confluence of these four forces at a specific location and time set in motion a cumulative process that, through the efficiencies we typically associate with clusters, exacerbates the polarities between the large urban regions and everywhere else.[11]

In Porter's view, these clusters form most often through the establishment of certain "anchor" or "core" firms, firms that are focused on extra-regional markets, and which drive the demand for population-serving (i.e., intra-regional) activities (a simple variant of Economic Base Theory). Porter's Diamond shows that as these anchor firms draw in others, gradually imports are replaced with local pro-

duction and the cluster becomes a highly integrated system of over-lapping value chains. As this system grows, and as value chains become sufficiently compartmentalized, average costs decline to the point where the cluster can produce its range of goods and services at a competitive price and in superior quality due to extreme specialization. These efficiencies stem from the four corners of the Pyramid. Local linked firms offer efficiencies in myriad ways, as does access to a large supply of skilled labour looking to sell their services to the highest bidder. At the same time, the local/regional market is also growing, and this too allows for growth and specialization in many of the population-serving industries. The end result – location in the cluster translates into efficiencies that parlay into monetary profits for firms. As such, an explicit preference for these larger diverse clusters emerges and they become the only points on the landscape to experience growth.[12]

Wolfe and Gertler (2004)[13] add considerably to Porter's conceptualization of the benefits associated with economic clusters by noting that cluster membership often confers a competitive advantage to cluster members (i.e., firms) by providing access to a distinctive local knowledge base. Wolfe and Gertler note that the "…central argument in this stream is that the joint production and transmission of new knowledge occur most effectively among economic actors located close to each other." This view expands the dimensions of the Porter Triangle to include connections to local, regional and global innovation systems – usually through research universities, government labs or other institutions. In essence, this school of thought expands our understanding of what binds a cluster together; clusters form, and convey advantages, not merely because of the efficiencies that stem from more efficient input and output linkages between firms along respective value chains, but also because they provide member firms access to the system that is creating new knowledge. Wolfe and Gertler (2004) refer to these as "Knowledge Spillovers". Specifically, Wolfe and Gertler note that it is proximity "…to critical sources of knowledge, whether they are found in public or private research institutions or grounded in the core competencies of lead of anchor firms, facilitates the process of acquiring new technical knowledge, especially when the relevant knowledge is located at the research frontier or involves a largely tacit dimension. Knowledge of this nature is transmitted most effectively through interpersonal contacts and the interfirm mobility of skilled workers." Interestingly, this result also harks back to Marshall's early work on industrial districts; specifically Marshall acknowledged that information sharing within the cluster was one reason for their efficiency. **Figure 9.2** shows very clearly how (and indeed why) research institutions and government policies aimed at promoting knowledge/innovation diffusion stand at the forefront of cluster-based economic development strategies.

Figure 9.2—Technology Spillovers, Agglomeration and Regional Economic Development



Feldman and Stewart (2006)[15] show that public institutions, especially research universities, are key components of the innovation diffusion system that fuels economic clusters. See **Figures 9.3, 9.4 and 9.5**. Through the schematic shown in **Figure 9.3**, Feldman and Stewart (2006) are emphasizing the fact that a region's research-based institutions lie at the centre of the innovation systems that drive cluster formation, growth and evolution.

Figure 9.4 presents a hypothetical model of how these innovations diffuse from research universities to the private sector in the form of patents and licenses that lead to commercialization and employment. In **Figure 9.5**, Feldman and Stewart (2006) provide some empirical support for this model using a case study of publicly supported (and university aligned) information and communication technology (ICT) research and development (R&D) consortium (TRLabs). **Figure 9.5** shows that $923 Million in graduate student support (Federal) ultimately gave rise to commercial revenues in excess of $15 Million in addition to some 811 students trained, 289 technologies commercialized and 157 patents filed or issued.

Figure 9.3—Examples of Knowledge Transfer Mechanisms from Canadian Universities to the Public Sphere

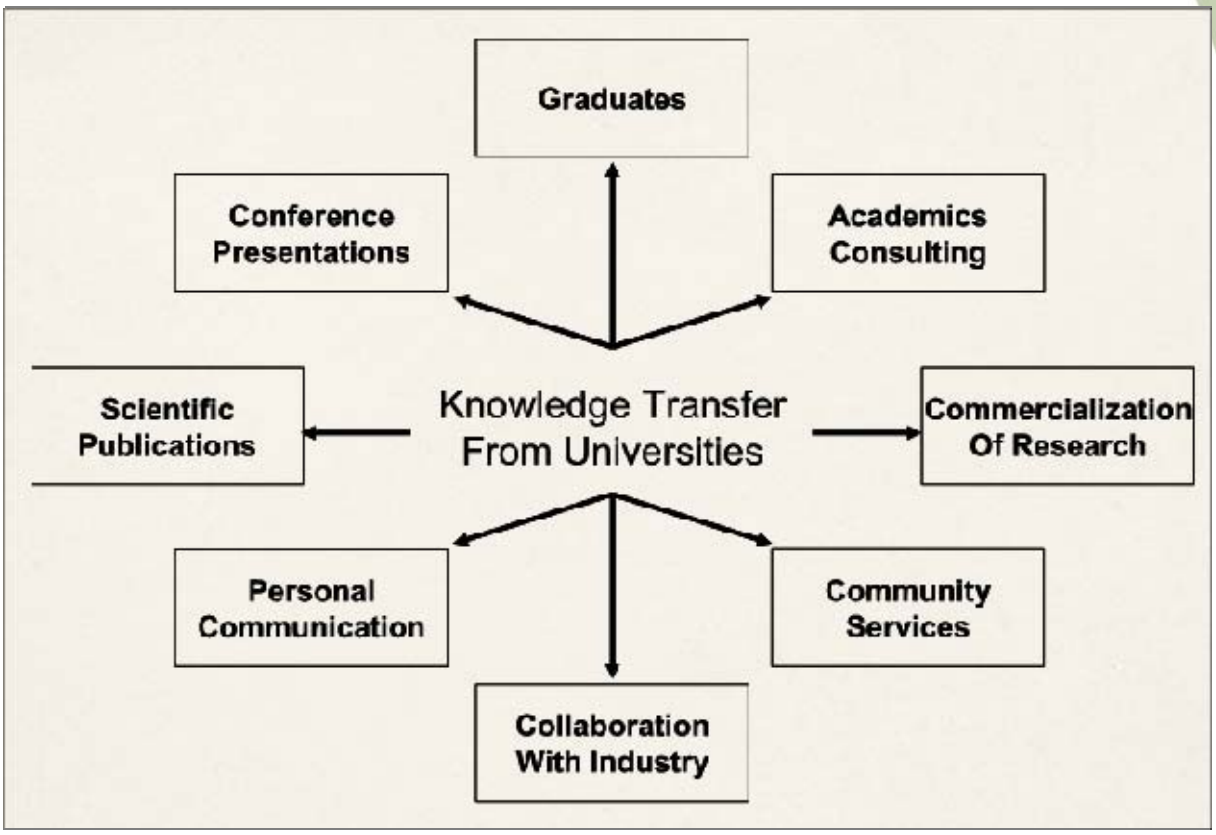


Figure 9.4—Conceptualization of How Knowledge is Transferred from University (or Federal Research Laboratory) to the Private Sector

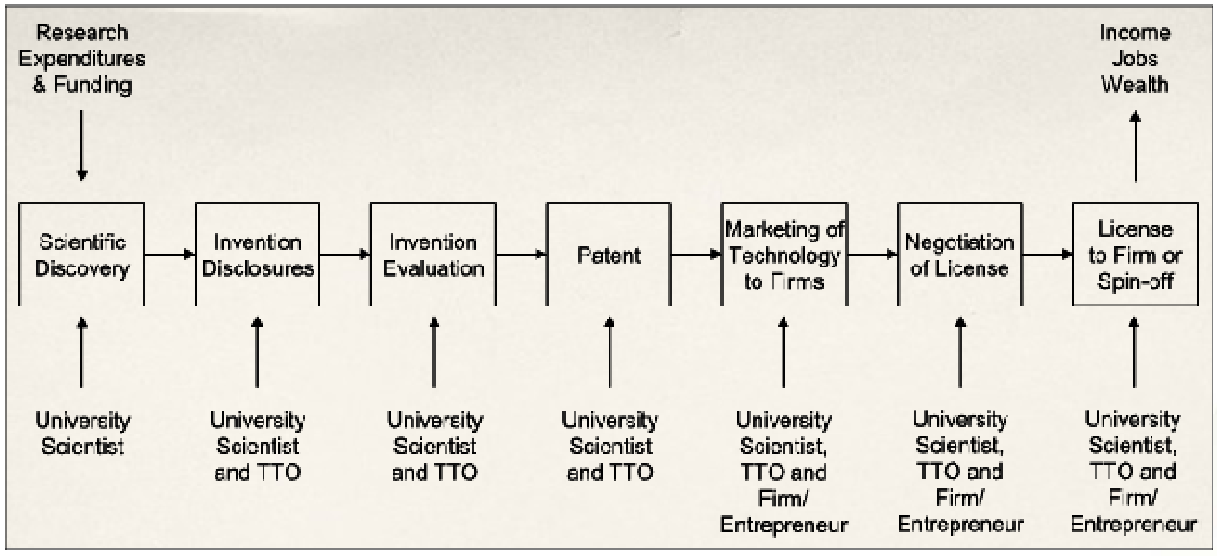
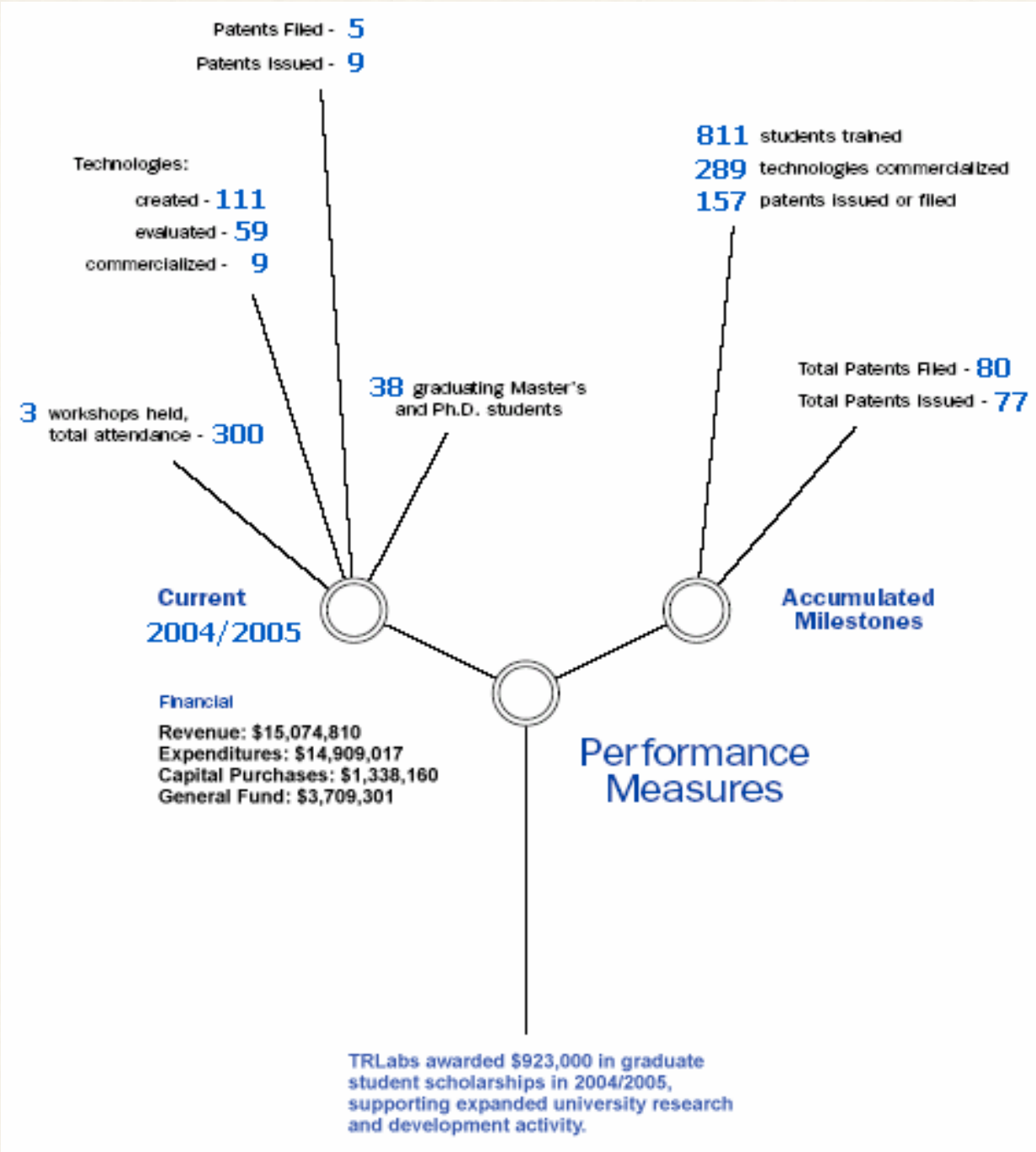


Figure 9.5—Examples of Knowledge Transfer Metrics and Measurements Found in Canada's National Innovations Systems—TRLabs



Many of the graduate students trained in the TRLabs project will, upon graduation, take their acquired knowledge and skills with them and either become employees in other firms or entrepreneurs. Either way, the pathway from government funding to the diffusion of knowledge is clear to see in Figure 5. Indeed, current wisdom contends that the most successful economic clusters the world-over are structured similarly.

9.5 Evidence Regarding Agriculture and Agri-Food Clusters

Steiner and Ali (2009)[19] focus on what they refer to as the "Food Innovation Cluster" in the Province of Alberta, Canada. They note that while it is generally accepted that the innovation system cum Porterian cluster view discussed above is easy to envisage in the case of high-technology clusters, they ask to what extent the same behavior is witnessed in food processing clusters in Western Canada. While the geographic scope of this research lies outside of the study area, the findings are useful in helping to understand the nature and health of the cluster in the study region.

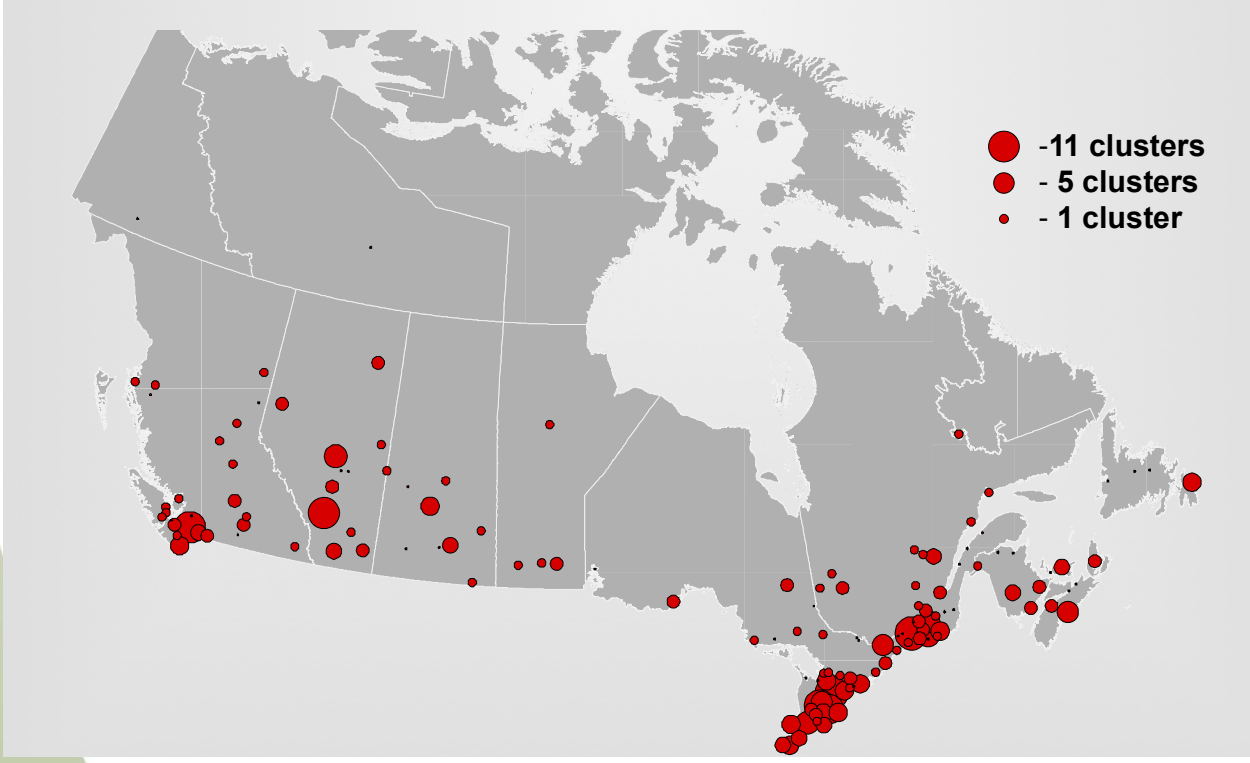
Steiner and Ali (2009) discuss several constraints acting on the food processing cluster in Alberta, Canada and in so doing, provide some information on how to gauge/assess the health of the cluster in the study region. To start, Steiner and Ali note that the Alberta food cluster is hampered by the fact that it is located far from primary markets in Canada and in the United States. As a result, they note that food processing in AB is predominantly small-scale, with more than one-third of all processors employing fewer than 5 employees! The authors are citing distance from large markets and the consequent lack of scale economies in production as significant constraints on the food cluster in Alberta. The cluster in the study region clearly would not be similarly constrained. Indeed, the study region is very opportunistically located vis-à-vis the industrial (and population) heartland of the North American continent. Clearly this bodes very well for the agriculture and agri-food cluster in the study region.

Another constraint pointed out by Steiner and Ali with regard to the Alberta cluster is a shortage of educated/skilled labour. In the Alberta context, the oil patch is skewing all factor markets, especially labour markets. As such, these activities (and the locations in which they are concentrated) are consuming the majority of the skilled/educated labour force in the province making it harder for all other industries to find adequate numbers of capable workers. All jurisdictions in Canada (and indeed elsewhere) are critically concerned about the potential impact of an aging population and specifically the impact on labour supply. Municipalities including Hamilton, Toronto, Mississauga, Niagara Falls and many others have conducted research into their demographic structures and the potential for labour market disruptions in the future. While all such studies do indicate that as average ages increase, the working age population (and hence labour force) will decline, there are many variables at play in the determination of the spatial distribution of the labour force. Most importantly from the perspective of the study region is that, as a large urban agglomeration, the study region is a

preferred target for internal migration as well as international immigration. While many jurisdictions in Canada will face the prospects of dwindling labour supply, large urban areas like the study region are likely to fair much better than the average. In this sense, the size and diversity along with the high degree of urbanity in the study region would seem to bode well for the cluster on this dimension. Given connections with the many universities, colleges and research institutions in the region, the cluster will likely be able to reach sufficient numbers of suitable workers into the foreseeable future.

Work completed as part of the Innovation Systems Research Network (ISRN) offers some support for the contention that the cluster in the study region is performing well and in a better position that the Alberta cluster studied by Steiner and Ali (2009). Specifically, the ISRN is a national research cluster that brings together researchers from across Canada to study innovation systems and clusters. This project has conducted an impressive number of case studies of clusters from across Canada, and across many industrial sectors. Metrics offered by Spencer and Vinodrai (2005)[20] in the context of the ISRN focused on the development and measurement of indicators of cluster size and performance of all clusters studied as part of the project. Figure 6 presents a map of the spatial distribution of the clusters identified by the ISRN work (note that the bubbles are proportional to the number of clusters in each city). **Figure 9.6** clearly shows the dominance of southern Ontario in terms of the numbers of clusters present.

Figure 9.6—ISRN Cluster Count by City



Another constraint noted by Steiner and Ali vis-à-vis the Alberta cluster is access to venture capital and low levels of R&D spending. These authors note that these deficiencies are acting to seriously constrain the ability of member firms in the Alberta food cluster to innovate. As we saw above, innovation is the driver of cluster formation, growth and evolution. The study region, in contrast, is located in the industrial, population and research infrastructure heartland of Canada. The study region contains a significant proportion of Ontario's (and indeed Canada's) research and innovation capacity, public and private, in the form of universities, colleges and research laboratories. As such, venture capital and R&D spending are not likely to be similarly constrained in the study region. Evidence reported by Spencer and Vinodrai (2005) support this conclusion. Specifically, these authors show that Ontario captures nearly 50 percent of all clusters nationwide, including nearly 50 percent of those involving agriculture and food processing.

Figure 9.7—Patents Filed Between 2000 and 2003 by ISRN Case Study

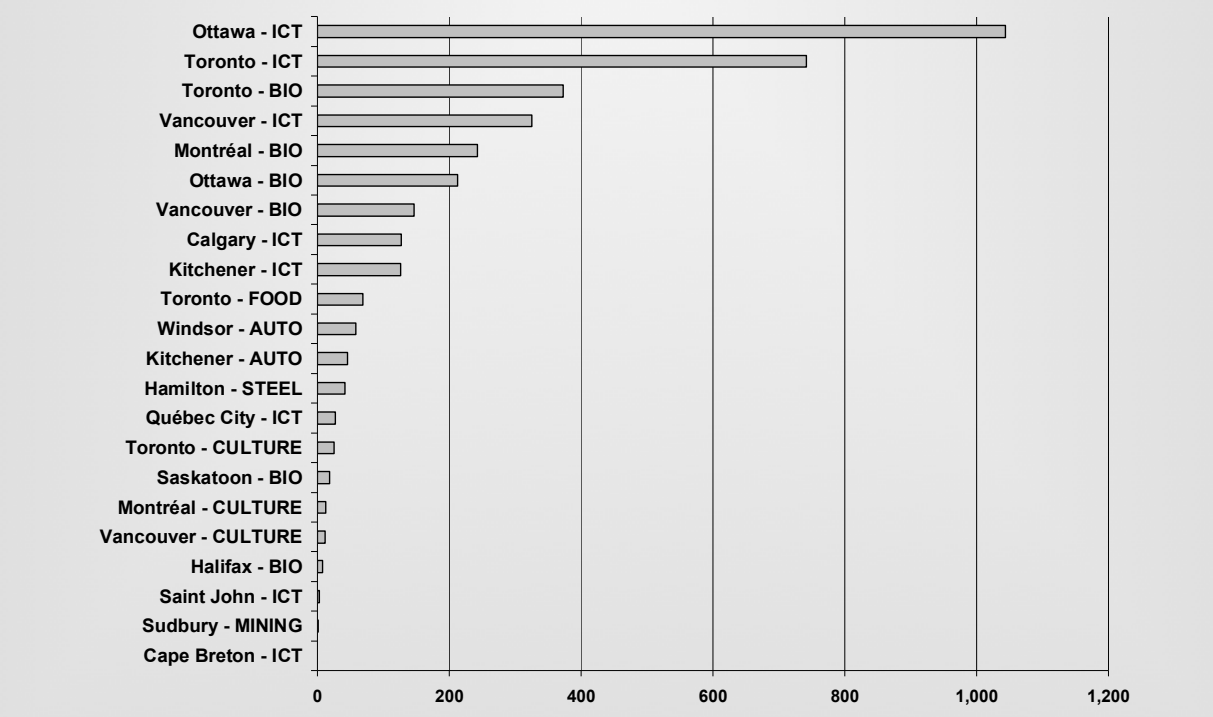


Figure 9.7 shows that the Toronto food cluster sits in the middle of the pack of clusters studied by the ISRN in terms of the numbers of patents generated by the cluster (where a patent is a form of legal title granted to the inventor of an innovation to that innovation). The fact that the Toronto food cluster is generating more patents than is the ICT cluster in Quebec City, and the fact that it is the only food cluster included in the study suggests that this cluster is not starving for R&D spending or innovative capacity. It is important to note that this does not mean that the cluster is not being constrained for want of more capital, it simply means that a relatively significant amount of R&D spending is taking place in this cluster. Again, while the Toronto food cluster does not encompass the entire cluster (spatially) as defined for this study, it is likely a very good proxy for what is happening in the cluster throughout the entire study region.

9.6 Government Support for Agriculture and Agri-Food Clusters – A need?

Steiner and Ali (2009) cite Lagnevik et al. (2003)[23] when noting "…there is a broader base for clustering success than that of enabling organizations." (10) In other words, based on the findings in Lagnevik et al. (2003), the evidence suggests that successful food clusters are rarely the result of government intervention, but rather other factors. Specifically, they note three factors that characterize successful food clusters:

1. SUPPLY DETERMINANTS: unique resources and knowledge in combination with well developed infrastructure that act to "ground" the cluster for a particular type of economic activity;
2. STRUCTURAL DETERMINANTS: the presence of large multinational corporations in the supply chain (allowing for considerable market power) along with the presence of a coherent vision of the future across all cluster members; and,
3. DEMAND DETERMINANTS: a local market with a customer base that demands innovation (e.g. organic produce, sustainable production methods, quality control, etc.) in concert with strong connections to external (export) markets.

On all fronts, the agriculture and agri-food cluster in the study region would appear to benefit from all three of these characteristics thereby limiting the role of governments relevant to the study region to one of facilitation and guidance as opposed to initiation.

Steiner and Ali (2009) note in all cases, knowledge diffusion is likely to play a critical role in terms of the exchange of knowledge regarding processes, technologies, consumer tastes, as well as existing infrastructure, firm alliances and networks. This would seem to point to a primary role for government as being one of the maintenance and enhancement of the system by which knowledge is generated and diffused throughout the cluster. Examples of things that governments could do to enable knowledge creation and diffusion would include:

1. Guaranteeing a steady supply of well-trained/educated workers;
2. Accommodating a highly mobile workforce by appropriate investments in transportation infrastructure, both private and public;
3. Promote access to what Steiner and Ali (2009) call "virtual clusters" or what Bathelt et al. (2004)[24] refer to as "global pipelines" (read global innovation systems connecting clusters globally, usually through research clusters in the largest cities).

Related to the notion of what governments can do to enable food clusters is the question of whether or not they should intervene. The cluster concept has been used to justify some irresponsible development projects (usually with public funds) on the belief that successful clusters can be transplanted from one place to another, usually lagging, place. The belief was (and still is in some circles) that if a cluster anchor firm (or firms) is placed in a region artificially it will call forth the remainder of the linked supply chain by virtue of the demand for inputs. History has proven however that these policies are fallacies and that clusters can only be supported/grown in locations that possess apriori the basic ingredients for the cluster (e.g., a university, an international airport, a logistics industry, etc.). In this sense too, the study region cluster would seem to be in an excellent position. The study region possesses a world renowned research and development capacity, a highly advanced and diversified economic structure, a large and demanding domestic market as well as free-flowing connections with the global economic system through land, air, water, and electronic linkages. Most importantly, the study region possesses an unparalleled land base that gives it a comparative advantage for myriad types of agricultural production.

The evidence presented thus far would seem to indicate that the agriculture and agri-food cluster in the study region possesses all of the elements necessary for the continued expansion and diversification of the cluster. Also, various levels of government (Federal-research grants and Centres of Excellence, Provincial-university and college funding as well as research funding, and Municipal) have a history of making strategic investments in the study region that buttress the cluster and make it more competitive nationally and internationally.

9.7 Summary and Conclusions

Available evidence, while relatively scant, does convey several important facts:

1. That clusters are indeed present in the agriculture and agri-food production sectors;
2. That these activities taking place in the study region are part of a large and diverse cluster of activities linked together through economic connections and through innovation and knowledge diffusion networks anchored by the region's research universities and government research laboratories;
3. The region's characteristics bode well for the future of the cluster;
4. The importance of public support for the knowledge creation and diffusion process cannot be overstated;
5. Relatively speaking, the agriculture and agri-food cluster in the study region is likely one of the largest and most robust in the province and likely the country; and,
6. The best thing governments can do to protect and nurture the cluster is to continue to prime the innovation diffusion system and to protect the primary land base on which the cluster ultimately depends.

1 Many of which were thought to be dependent on physical proximity.

2 It is important to note that while research does show that some of the synergies associated with clusters are associated with physical proximity, functional economic clusters are defined primarily in terms of economic linkage as opposed to physical proximity. Bathelt et al. (2004) refer to 'global pipelines' that link clusters to the global innovation system, while Steiner and Ali (2009) refer to these as 'virtual cluster configurations'.

3 Albeit, a view much infused by the works of scholars like Professors Gertler and Wolfe of the University of Toronto who focus specially on the potential of clusters to generate innovations – or more accurately, on the ability of regional innovation systems to breed successful economic clusters.

4 http://www.isc.hbs.edu/econ-clusters.htm

5 http://www.scribd.com/doc/18090584/PreFeasibility-Studies-for-Selected-Agribusiness-Clusters-in-the-Caribbean

6 http://www.isc.hbs.edu/pdf/DPS_ClustersPerformance_08-20-10.pdf

7 It is important to note that Steiner and Ali (2009) do not provide even a general accounting for the specific sectors envisioned to be included in their "food cluster" but the discussion does make it clear that they envision a highly integrated value chain operating from production to processing.

8 For many years, economic geographers used terms like "conurbations" or "industrial complexes" to represent this idea.

9 Indeed, it was this drive to 'explain' clustering, among other patterns, that led to the birth of a specialized field known as Regional Science in the 1950s.

10 Taken from Motoyama (2008), pp. 385.

11 It should be stated that the geographic scale envisioned in this argument is that of the Greater Toronto Area or perhaps the Golden Horseshoe. The point being, the study region is contained within what has been referred to above as a large urban region despite the fact that areas within it are considered to be non-urban by those who live in them.

12 A case in point: while the Growth Plan for the Golden Horseshoe is one of managing growth, the Growth Plan for the remainder of the Province is one of managing population decline.

13 Wolfe, D.A. and Gertler, M.S. (2004). "Clusters from the Inside and Out: Local Dynamics and Global Linkages", Urban Studies, Vol. 41, Nos. 5/6, pp. 1071-1093.

14 Taken from Koo, J (2005). "Technology Spillovers, Agglomeration and Regional Economic Development." Journal of Planning Literature, Vol. 20, No. 2.

15 Feldman, M. and Stewart, I. (2006). "Knowledge Transfer and Innovation: A Review of the Policy Relevant Literature." Report prepared for the Ontario Ministry of Research and Innovation.

16 Taken from Feldman and Stewart (2006)

17 Ibid.

18 Ibid.

19 Steiner, B. and Ali, J. "Regional food clusters and government support for clustering: Evidence for a 'dynamic food innovation cluster' in Alberta, Canada?

http://mpra.ub.uni-muenchen.de/26251/

20 Spencer, G. and Vinodrai, T. (2005). "Cluster Muster or Bluster? An inductive approach to mapping and measuring clusters in Canada." Presentation to the ISRN Annual Meeting, May 6, 2005. (see http://www.utoronto.ca/isrn/publications/NatMeeting/index.html#nat05)

21 Taken from Spencer and Vinodrai (2005).

22 Taken from Spencer and Vinodrai (2005).

23 Lagnevik, M., Sjoholm, I., Lareke, A., and Ostberg, J. (2003). "The Dynamics of Innovation Clusters: A Study of the Food Industry." Edgar Allen: Cheltenham.

24 Bathelt, H., Malmberg, A., and Maskel, P. (2004). "Clusters and Knowledge: Local Buzz, Global Pipelines and the Process of Knowledge Creation." Progress in Human Geography, Vol. 28, No. 31, pp.31-56.

Chapter 10—Examples of Food and Farming Clusters

To identify the most important actions that can be taken to strengthen the food and farming cluster in the Golden Horseshoe, you must know what the elements of a successful cluster are that make it successful. To provide some insight about the different attributes of clusters and how they impact performance, this chapter contains a summary of the characteristics of clusters from around the world.

Agri-food systems development has been driven from either grassroots/bottom-up initiatives such as farmer or urban-dweller groups seeking to improve the system with respect to one or more particular aspects, or from top-down federal, provincial/state, or municipal initiatives providing the policy framework and supports that enable the development of successful agri-food clusters. Most major metropolitan areas/regions now have food or agri-food system strategies at some level of development, though these are generally fairly recent. Agri-food clusters, on the other hand, have developed near the metropolitan areas, either as historical 'accidents' of geography or, more recently, as the result of coordinated and cooperative development plans. The current chapter is a jurisdictional review of metropolitan and regional agri-food systems/strategies and agri-food clusters, and the policies and strategies that support them. This chapter includes provincial, national and international examples of developing and developed agri-food systems and clusters considered to be of relevance to the GTA/Golden Horseshoe/Holland Marsh area. By necessity, the descriptions in this chapter are brief, but a direct web-link is provided for each jurisdiction. More extensive details on these examples, as well as some additional regions and metropolitan areas reviewed, are contained in an **Appendix 5** to the report. Mechanisms used in other jurisdictions for achieving short- and long-term growth of the agri-food industry and cluster development, and conclusions for the strategy are summarized at the end of the chapter.

10.1 The Agri-Food Business Cluster

The agri-food and agri-based processing sector in its broadest sense being considered for the GTA/ Golden Horseshoe/Holland Marsh consists of five components and the linkages between them:

- inputs/suppliers
- primary production
- processing
- retail/wholesale
- food service

Each component acts as both a supplier and consumer to one or more of the other components. In its simplest form, this represents a supply chain, and consumer preference tends to be the driving force for the rest of the chain, with marketing influencing consumer demand. This may be a useful model for a single industry, but potentially limiting.

For successful cluster(s) development, there needs to be interaction among the components, development of shared resources and infrastructure (e.g. food terminals, transport, power, water supply), and knowledge development and dissemination.

Over-lying policy needs to support the interaction. Specific examples of such interactions range from shared geothermal power generation in a greenhouse cluster in Den Hague (Netherlands) to shared transport to retail markets of goods from small food processors in Edmonton.

Many examples of such interactions are presented in the following chapter dealing with a jurisdictional review of provincial, national and international agri-food systems and clusters.

10.2 Canada

10.2.1 Ontario

Many Ontario municipalities are drawing up plans regarding their food systems in conjunction with regional plans. Legislation generally deals with the rural/urban interface. Some local municipal by-laws may help or hinder the improved supply of local food. Municipalities will need to review their by-laws to ensure that they are supportive of local agriculture and agri-food business, to ensure the supply of healthy, local food.

Kingston

"Food Down the Road"[1] is a ground up movement, initiated by the local farmers' union with Federal Provincial grants. A report has been produced dealing with the full range of current food system, opportunities and recommendations for both short and long term development. They have reached the stage of setting up a Food Policy Council and Local Food Charter.

Waterloo[2]

The Region of Waterloo Public Health Department, along with the planning department, has produced a report entitled "A Healthy Community Food System Plan for Waterloo Region", setting out objectives, strategies and actions for their food strategy and results of their consultation process. This is part of the Regional Growth Management Strategy. There is a strong emphasis on improving the health of the food system, including improving food related knowledge and skills, healthy food availability, agricultural policy, and economy of the local food system.

Ottawa[3]

The Ottawa agri-food system policy is a joint effort between the cities of Ottawa, Gatineau and the National Capital Commission, and in this way bears some similarity to the GTA-Golden Horseshoe situation, albeit with fewer players. The food system is defined as farming, processing, transport, distribution, consumption, and waste recovery, as well as an education element central to them all. The focus in on a healthy sustainable agri-food system, and does not focus on agri-food business development in the broader sense. Choosing Our Future is a series of foundation papers outlining the issues of the food system (energy, economy, farmer succession, health, urban growth, food costs), current approaches to food and agriculture (greenbelt, clean water program, food programs, urban agriculture, local food), indicators for success (e.g. % local food consumption, number of market days, number of CSAs) and opportunities and best practices (food policy, artisan farmer training and relevant infrastructure, local food promotion, waste recovery) for the planning initiatives.

10.2.2 British Columbia[4]

The province of British Columbia has an overall strategy for encouraging/protecting agriculture in the context of urban/rural planning and development, initially through agricultural land reserves (ALRs) started in the 1970s and continuing with the Strengthening Farming initiative (Farm Practices Protection Act and Planning For Agriculture components), 'Agri-teams' and 'Agri-focus', GIS and land inventory assessments, and development of Agricultural Nodal Management Areas.

Vancouver

The report Local Government Policy Options to Protect Agricultural Land[5] identifies, reviews, and provides a quantitative analysis of the potential policies from around the world that includes a description (mode of action and examples), and regulatory/legal/administrative fit, fairness, and efficacy**.** Local government policy options to protect and improve agriculture within Vancouver's boundaries (agricultural land reserve). The following approaches that are relevant to the B.C. situation are identified.

1. Regional and edge planning;
2. Agricultural enterprise zones coupled with revitalization tax exemption programs;
3. Amenity bonus;
4. Regional agriculture fund;
5. Regional farmland trust;
6. Agricultural development office;
7. Regional procurement policies;
8. Agritourism strategy; and
9. Ecological goods and services.

Initiative #2 speaks to the potential for developing agri-food related business clusters.

Its regional growth strategy, Metro Vancouver 2040 Shaping our Future, is due out by end of 2010. The Draft version supports agriculture through urban-rural boundaries and maintaining agricultural land continuity, improved transportation and utilities infrastructure, and financial support for agri-food economic development.[6]

Local food promotional programs have been prominent on the Vancouver landscape for several years: farmers' markets, FarmFolk/CityFolk, Get Local (public education program), Seasonal Sustainability Series, Incredible Edibles tours, Shared Harvest, Feast of the Fields, and Edible Vancouver magazine.

Richmond[7]

Richmond, B.C. has a strong management plan for maintaining a viable agricultural sector within its boundaries. Its detailed 2021 Agricultural Viability Strategy includes an agricultural decision making strategy, recommendations including data collection systems and agricultural land impact assessments, services and infrastructure strategy, city policy and bylaws strategy objectives and recommendations, non-farm use and parks and recreation objectives, and agricultural edge strategy objectives. The framework will allow for maintenance and growth of a sustainable agricultural sector, but does not address the planned development of supporting industries (agricultural supply, processing, marketing, food service etc.) that would be required to support strong agri-food cluster development.

10.2.3 Alberta

In Alberta, agri-food system development initiatives are provincially driven (e.g. Agriculture and Rural Development) with input from municipal bodies (e.g. Edmonton Economic Development Corporation). The provincial framework is described by Steiner et al (2009)[8]. Alberta Agriculture and Food Council (AAFC) initiatives are listed on their website.[9]

AAFC conducted a 2009-2010 policy forum to review consumer and agriculture trends, opportunities and options for Alberta and the broader Canadian Ag sector. The themes are very similar to the Ontario context, and are summarized on the website.[10]

Alberta's Value Chain initiative has very strong links to and support for the agri-food industry.[11] In the value chain, companies work closely together to get a product to the consumer. Value chains are somewhat different from clusters in that they are a linear model from producer to consumer, but accelerate innovation by differentiation and linking the end user's needs with the producer and all members between, and creating a competitive advantage. "*The value chain, not the individual company is the unit of competition.*" Value chains are developed for a particular commodity type, with less connectivity between commodities and common infrastructure than would be the case for cluster development.

A series of reviews, innovation papers, and development initiatives have been completed for the following:

- Retail value chain
- Food service value chain
- Agrivalue Processing Business Incubator[12]
- Alberta Food Processing Development Centre[13]
- Market value and potential for alternative agricultural markets study
- Alternative Agriculture Markets in Alberta Study, 2008
- farmers' markets
- farm retail (farm gate) purchasing
- farm or ranch activities – agri-tourism
- local food www.explorelocal.ca.

Alberta also commissioned a Regional Food Cluster Review to examine international agri-tourism cluster projects - smart practices of local food groups (events and promotions) to inspire and encourage using profiles of successful operations.[14]

Edmonton

Edmonton business organizations are involved in several of the initiatives listed above, especially related to food processing, such as the Agrivalue Processing Business Incubator, and Alberta Food Processing Development Centre. Of particular note is a very successful pilot project among small to medium sized agri business to share shipping costs. This is the sort of cooperative initiative that can strengthen agri business clusters, promote growth of individual participant and improve profitability.[15]

10.2.4 Quebec

Agri-food is a major industry for the Quebec economy, with agriculture and fishing, processing, wholesale/retail trade, food service providing 62 000, 63 000, 166 000, and 192 000 jobs, and 3.1, 6, 3.9, and 4 billion dollars in GDP, respectively in 2009. It is also worth noting that Quebec's growth in export trade has outpaced the rest of Canada. Canada's stringent food safety and environmental policies assist in accessing world markets by boosting consumer confidence in Canadian products. Quebec supports its agri-food industry through post secondary institutions and R&D institutions with strong links to the industry. It also has a tax structure among the lowest in North America (comparative rankings of Montreal, Toronto, New York and Chicago are 67, 78, 86, and 100, respectively).[16]

Agricultural land in Quebec has been protected since 1978 through the Agricultural Land Protection Commission (re The Act Respecting the Acquisition of Farm Land by Non-Residents). This relies on a case-by-case evaluation of any 'non-resident' wishing to acquire farmland; mean to protect the agricultural potential of land while accommodating variances where appropriate. In other words, Quebec appears to be strongly protective of its agricultural capacity, but could enable expansion of supporting industry/infrastructure to form agri business clusters.

Montreal

A significant portion of the processing (dairy, meat, bakery and confection, fruit and vegetable preserving, and others), wholesale/retail, and food service industries, is centered in or near Montreal. The agri-food sector is described as a "cluster of networks", with each network being sub-cluster of the bio-food cluster.

These networks are defined in the Communauté métropolitaine de Montréal's (CMM) economic development plan and bio-food cluster review.[17] This is an extensive review of the agri-food system in Montreal with reference to other areas in Quebec. It gives recommendations for the sector development, and "avenues for growth" (which include things such as maintaining/increasing competitiveness in the processing side, including a Quebec food-processing Development Agency).

From the report: *"There are 24 identifiable networks in Quebec. There are nine animal networks (goat, sheep, pigs, cows, horses, veal, poultry, rabbit, large game), eight agricultural networks (processed vegetables, potatoes, garden products, ornamental horticulture, apples, grains, fodder plants, greenhouse gardening), and seven other networks (maple syrup, organic, eggs for consumption, beekeeping, agri-food, dairy, herbal medicinal plants).*

Most of these networks are active, a number of them (more than half) having adopted a strategic action plan. Seven are either inactive (beef, beekeeping), or have no concrete action plan (grains, rabbits), or flow chart (milk, poultry, eggs)."

The report contains a review of all of the above networks in the metropolitan area for the production and marketing areas; considers factors and avenues for development of the agri-food (bio-food) industry in the CMM. Developmental factors include activity in R&D, training and labour, financing and insurance, networks and associations, regulation and infrastructure. One avenue for growth discussed for Montreal specifically is promoting it as a location of choice for agri-food business development.

10.3 North American Examples

10.3.1 United States

The U.S. has federal programs to support agriculture and promote agri-food business development. For example, the United States Department of Agriculture's (USDA) Know Your Farmer/Know Your Food program[18] provides resources to:

- support local farmers (including farm loans, storage facilities loans, value-added grants, new producer development, cooperative development, marketing and technical assistance),
- strengthen rural communities (including technology transfer, loans, enterprise grants, business opportunities and facilities), and
- promote healthy eating (including community food projects, market improvement and promotion, school programs, nutrition, specialty crop block grants).

The Agricultural Products Cluster Project[19] conducted by Harvard Business School, indicated that for the agricultural sector, half of the top 20 agri-food clusters in the US are located in California.

10.3.2 California

Modesto

Modesto is in the heart of California's Central Valley, the center of food and agricultural production in California, and is home to the largest agri-food cluster in the U.S., including companies such as the Ernest &Julio Winery, Seneca Foods, Del Monte Food, and Stanislaus Food Products. The key ingredients that make this such a successful food cluster include location and climate, arable land (though water issues may become much more problematic in the future), a large labour force, processing facilities that have developed near the primary production, and large retail/wholesale sectors focusing on export as well as local marketing. On top of these ingredients, there is a strong R&D focus on production, processing and marketing.

The Agri-food Informatics Research Institute was established in 2005, and serves as a "gathering point for agri-technologists to talk, network, and develop technologies that might result in spin-offs that create or support local business." Its goal is "to conduct research and generate new ideas and technology that can be put to practical use to benefit industry, the economy, and the environment." It aims to "attract compatible investment, encourage a new cluster of related business, and create new jobs".[20]

Modesto is also home of the National Agricultural Science Center (the only one in the U.S. It has a strong emphasis on research and education in the agri-food sector).[21]

Los Angeles

In contrast, 'The Good Food for All Agenda: Creating a New Regional Food System for Los Angeles' report is about food security (focusing on urban agriculture and farmers' markets) and food sovereignty (food shed assessment).[22]

San Francisco

San Francisco's 'Foodshed Assessment: Think globally – eat locally' is somewhat broader. Sustainable Agriculture Education (SAGE), in collaboration with AMR and the American Farmland Trust (AFT), produced a feasibility study about the potential of the City of San Francisco to get more of its food from local sources as a means to increase urban public health, regional agriculture viability, and urban-rural linkages. Its recommendations include local food identification and information, research, infrastructure, financing, education, institutional partnerships/retailing, farmland conservation and stewardship.[23]

Sacramento

Sacramento, California, has a broader scope still with respect to its agri-food system strategy including the elements needed to support agri-food businesses. The 'Rural-Urban Connection Strategy' (RUCS) includes evaluations of land use and land use policy innovations for viability and sustainability, transportation system function and maintenance, regional local market assessment, and innovation for a local food system (including consumer awareness, agri-tourism, farm to institution programs, local foods, creation of a Food Policy Council, business training programs for farmers, new farmer-land connection, improved processing ability/capacity within the region.[24]

10.3.3 Iowa

Agricultural production is central to Iowa's economy and it is strongly supportive of its agri-food industry. The Leopold Center for Sustainable Agriculture at the Iowa State University is a major center for agri-food information and research. The website accesses a very large quantity of information on projects on local food, marketing, value chains, market planners, education, research topics, etc.

The Local Food and Farm Plan report, was based on a consultation process with industry sectors, and makes policy and funding recommendations for supporting and expanding local food systems, assessing and overcoming obstacles necessary to increase locally grown food production, recommendations for short-term and long-term solutions, including but not limited to the enactment of legislation.[25]

An interesting product arising from some of the marketing research that supports agricultural advancement and innovation is the Iowa Fruit and Vegetable Market Planner for exploring markets for locally grown food (e.g. dollar value of market balance for a particular product (value of product consumed within a specified radius, what is produced locally, and what is imported to the area, thus giv-

ing an estimate of the available market for locally produced product).

Iowa also supports Value Chain Partnerships working groups which include producers, businesses, and government, resources such as the Iowa Meat Processors Resource Guidebook, Multi-farm CSA handbook, and many other initiatives to improve value chains, sustainability, education, etc.

10.3.4 New York State

The State supports a number of regional, agri-food initiatives such as the New York Farm Viability Institute, which is a farmer-led, non-profit organization that supports applied research and education projects. Annually, the Institute offers a multi-million dollar grant program for farm-based projects that result in farm-level increases in profit, reductions in expenses, job growth, farmland retention, and adoption of technology.[26]

The farm-to-school program is a piece of state legislation that helps increase local farmers' share of the school food service market, bring fresh local food to school meal programs.

New York City

The FoodWorks plan for the New York City food system was announced on November 22, 2010, and addresses:

- food **security** (the ability of a food system to allow *"all people, at all times, to have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle"*),
- food system **sustainability** (environmental and economic functioning of agriculture, and the processing and transport sectors), and
- job and economic opportunity creation.

The 59-point plan attempts to address systematic problems including hunger, lack of access to fresh produce in impoverished neighbourhoods, and childhood obesity, but takes a 'ground to garbage approach' in revising the entire food system. The plan sets out goals, strategies and proposals for each phase of the food system: agricultural production (regional, CSAs, urban; markets, education), processing (growth and employment, regional products, environmental sustainability), distribution (infrastructure, technology, transport and planning), consumption (health, poverty issues, institutional, education), and post-consumption (decrease waste, increase resource recapture).[27]

The plan and underlying policies will support a more coordinated agri-food cluster, or set of clusters, from primary production and processing to the market (local consumer and export).

10.3.5 Illinois

Chicago

Food processing is the top business cluster in Chicago. A report on the Chicago food industry ('From Farm to Fork: Innovations in the Chicago Food Industry') was published in March 2010. The report is an analysis of the food industry in Chicago including trends, innovations along the value chain and requirements to make it work, packaging and retail distribution analysis, conclusions and recommendations. As the title suggests, innovation plays a particularly important role that, on the production side, includes improvement in ingredients such as heath promotion of products either by way of additions of nutraceuticals (e.g.acai berries added to coffee beans), by promoting local as natural and sustainable, or promoting the high food safety standards and traceability applied to local products. Strong procurement linkages between producer and wholesale/retail/ processing sectors are emphasized. Links between the agri-food industry and research and development, and financial support of innovation (venture capital) are emphasized. The report[28] concludes with two recommendations:

1. Hold an annual conference to facilitate collaboration among representatives from all parts of the food industry, and
2. Provide entrepreneurial support by establishing an organization that supports food industry entrepreneurs through all phases of food business development.

Both recommendations would be applicable to a GTA/Golden Horseshoe/ Holland Marsh agri-food industry strategy.

10.3.6 Vermont

On a much smaller scale, but equally important, Vermont promotes the links between producers and consumers. Vermont Fresh Network[29] encourages Vermont restaurants to buy locally and links 130 local farmers with more than 200 chefs, as well as food producers, food co-ops, agricultural co-ops and markets, distributors, and learning institutions. The network size has almost doubled since 2002.

10.4 International Examples

10.4.1 European Union

The European Union has set out, on a much broader scale, to promote cluster development across the member countries. Some clusters are region-specific focusing on particular specialties, while others are cross boundary dealing with research and innovation, knowledge and technology development and transfer.

10.4.2 Food Innovation Network Europe (FINE)

"FINE links stakeholders from companies, research institutes, policy makers and several regional networks. All FINE-regions have common regional characteristics: a food sector playing an important role in the regional economy; the presence of a strong agricultural sector and other specialized suppliers of the food industry; a high level of food-related knowledge in the region; the presence of public support for the food industry and local networks linking the different actors together. It is financially supported by the European Commission within the scope of the EU 6th Framework Programme.[30]

FINE has developed:

- "*A structured methodology and experience in activating regional stakeholders to define regional strategies for stimulating food innovation and food research based on a structured analysis of the strategic orientation and specialization of the region and knowledge about the potential role of clusters.*
- *A network for project development and partnering. Clustering the local, regional, national and EU players in the field of food-related RTD [Research and Technical Development], by providing a platform for long-term collaboration.*
- *An Action Programme for Europe's hotspots in the field of food RTD and innovation with 14 interregional cooperation projects based on 46 ideas for projects and >100 involved stakeholders in area's such as infrastructure, health, incubators, etc.*"

The **European Food Cluster Initiative** seeks to connect new food projects with the FINE network, clustering both regionally and scientifically.

10.4.3 Netherlands

Food Valley[31]

The Netherlands is the world's second largest exporter of food and agricultural products, after the United States. It is recognized by the EU as a 'hot spot' for food and nutrition. The components for Netherlands' success as Europe's 'Food Valley' include:

Trade and transport (450 million consumers within easy reach and an international seaport)

- Food and nutrition research (Wageningen University and other groups; the country spends a high portion of its profits on R&D; collaborative between government, institute and industry)
- Center of business, knowledge and innovation
- Platform for innovative entrepreneurship (supported by government), AND
- "*Business-to-Business matchmaking and knowledge supply for innovative companies*".

Greenport(s) Holland[32]

Greenport(s) Holland is part of the Dutch 'Food Valley'. It is a network, representing the Dutch cluster of businesses related to horticulture, including arboriculture and floriculture, consisting of five zones and a number of satellite production sites.

"Greenport(s) Holland is about local and remote food production, innovation, knowledge, research & development (e.g. Wageningen University as a key global player), food technology, wholesale, international trade & exports, food logistics and renewable energy supply." It has projects such as a master plan development of geothermal heating, produces a monthly E-letter for its industry, and provides significant awards to innovated technology development and distribution.

7.4.4 United Kingdom

Department of Environment and Rural Affairs (DEFRA) has set out a UK **Food Security** Assessment (Food 2030) with six core issues:

- Enabling and encouraging people to eat a healthy sustainable diet (creating a market demand for sustainably produced food)
- Ensuring a resilient, profitable and competitive food system (requiring skills and investment)
- Increasing food production sustainably
- Reducing the food system's greenhouse gas emissions (in response to UK government's Climate Change Act 2008 which introduces a legally binding obligation to reduce national GHG emissions by at least 80% on 1990 levels by 2050; an estimated 22% of GHG come from the food chain)
- Reducing, reusing and reprocessing waste
- Increasing the impact of skills, knowledge, research and technology.

For each of these core issues, the report sets out:

- Specific goals,
- Potential and examples of how progress is already being made, and
- Action Plan that includes a "Who – What – How – Result" set of questions and answers to accomplish the goals as set out. The strategy includes sustainability of global products.

Though this is a national strategy, it may be a useful model for the GTA because it is based on more than local food, and encompasses global aspects of the food system, and aims to improve profitability as well as sustainability. One example given is the case of Kraft Foods' relationship with the Rainforest Alliance, with the following result. *"Following a move to using Rainforest Alliance Certified™*

coffee, one of Kraft Foods' UK coffee brands, Kenco delivered exceptional business performance with a 17% increase in sales. By incorporating sustainability as part of its business strategy – sourcing sustainably farmed agricultural commodities, reducing water, energy and packaging use, transporting goods more efficiently and minimising waste – Kraft Foods aim to ensure the long-term health of their business while minimising their environmental impacts. "[33]

DEFRA has further developed a set of **indicators** for a sustainable food system which will provide a measure of progress in delivering the Food 2030 strategy, which are developed along the same themes as in the strategy[34]. This is an important concept, because it clearly formulates a method of tracking the success of the plan, and identifying less successful initiatives so that the action plans can be modified.

London

The City of London has developed its own food strategy which is closely aligned with Food 2030, but does not address the processing, retail and food service aspects except in the local food context. The strategy makes the following key points.[35]

- "*Food is an area of policy on which government can, and will need to, engage with people on issues of popular interest and economic, social and environmental importance.*
- *A concerted effort is needed to foster consumer buy-in and promote demand-led change towards healthy, low impact diets.*
- *Inequalities of access to healthy, low impact diets should be reduced by all means available.*
- *The food sector should be given greater prominence in economic strategies.*
- *There is more to do to secure the UK's food production base whilst continuing to provide consumers with safe affordable food.*
- *Food Research and Development (R&D) priorities must be balanced and responsive to needs across the food sector.*
- *There is a need for a new national conversation on how our land is best used.*
- *Government, working with industry, should develop a cross-cutting greenhouse gas emission reduction plan for the food chain.*
- *There is a robust moral as well as practical case for the UK to apply its resources and influence to food issues in the developing world.*
- *Effective development and delivery of food policy will demand better coordination and engagement – with the industry, within Whitehall, across the UK, with the rest of Europe and globally."*

7.4.5 Australia

Sydney

Sydney developed a strategic plan for sustainable agriculture in the Sydney region in 1998.[36] It is of note that the annual farm gate value of regional agricultural production is estimated as at least $1 billion, with flow-on effects to the economy of $2 billion to $3 billion.

The plan defines sustainable agriculture as a system that:

- responds to consumer needs for food and fibre products that are healthy and of high quality;
- takes full account of the costs of production, including environmental costs, with the ultimate objective that the pricing reflects these costs;
- protects and restores the natural resource base on which agriculture depends, and prevent adverse off-site impacts on the environment and any other sector of the community; and
- is financially viable.

A 2009 forum held during the development of Sydney's Agriculture – Planning for the Future[37] identified the following key issues still facing agriculture in the region, current policy strengths and opportunities.

- Urban development eroding urban agricultural land
- Contribution of agricultural employment undervalued
- lack of industry coordination – industry is fragmented, some sectors organized, others are not
- Limited market competition influencing economic sustainability (i.e. large supermarkets)
- Protection of agricultural lands to provide security of tenure
- Recognition of land use conflict
- More industry engagement and involvement in policy development
- Infrastructure and water availability
- Consistent planning approach across state and local government
- Land values surpassing production value
- Prohibitive planning regulations
- Complexity of regulation and legislation and need for clear direction
- Need for designated agricultural areas
- Recognition of food security

The current policy strengths and future opportunities included the following elements. Many of them are supportive of the development of strong agri-food clusters, and many have direct relevance to the GTA/Golden Horseshoe/Holland Marsh region.

- Promote whole government approach (agriculture should be emphasized in the metropolitan strategy, metropolitan water plan, and climate change action plan)
- Promote industry coordination
- Expand boundaries of the Rural State Environmental Planning Policy (to include Within the Sydney Basin)
- Adopt a coordinated industry-based 'case management' approach for industry specific strategies to increase competitiveness, e.g. poultry)
- Broaden the focus of 'employment lands' – co-locate industrial and agricultural employment parks to share resources and infrastructure
- Establish a government land holding body to buy-back productive land (lease to farmers)
- Implement transferable development rights and rate rebates (development potential for some lands on the basis of acquiring other land or payment to enable purchase of land to be held in perpetuity for agriculture)
- Support agricultural research (e.g. state and regional support of centers of excellence for agricultural research; reconsider closure of agricultural research stations)
- Promote community awareness and education
- Promote industry-based farm and produce collectives and fresh food initiatives
- Improve food labeling and fresh food branding
- Use development controls to promote urban food production
- Diversify the market and reduce monopoly of supermarkets (e.g. more fresh food buyers and sellers, local enterprises)
- Establish designated green zones and agribusiness precincts, i.e. directly promote specific cluster development
- Explore right to farm legislation
- Undertake a review of legislation (for focus and consistency)
- Establish an agricultural reference group including representation from industry, local and state government.

10.5 Summary and Conclusions

Development strategies for agri-food industries surrounding metropolitan areas around the world are focused at several levels. Most commonly they focus on food security (feeding the city), food access (availability of healthy food for everyone), and agricultural sustainability (environmentally sound, hopefully profitable), topics discussed in Chapter 8 of this Report. These goals translate into promotion of local agricultural production and some processing, and the mechanisms by which they can be attained can be put in place in a relatively short time frame (less than 10 years). Without exception, agricultural policies that support achieving these goals include keeping farmland in farming (firm urban-rural borders, farm trusts, designated agricultural areas/nodes etc.), and notionally supporting farm profitability where land values may surpass production value.

Initiatives that support the longer-term goals of agri-food industries in a regional and global context require a longer-term view and commitment, and consideration of policies that support co-development of all of the individual components. Agri-Food clusters develop when strategies extend beyond local to aim to develop an agri-food industry that can participate in regional and export markets as well as local. Those strategies support the input-output linkages among the various components of food supply chains. While strategies can be general, clusters most naturally develop around the supply chains of specific commodities or groups of commodities or specialties. Each commodity/group can have an industry-specific strategy to increase its competitiveness. Broad based agri-food clusters are by necessity comprised of multiple sub-clusters (commodity sector based), under umbrella government policies and strategies for marketing, finance, business and research development, and technology transfer.

The Table below, **Figure 10.1**, summarizes many of the short- and long-term mechanisms that are currently used or being considered in the jurisdictions described above to support their agri-food strategies. All are potentially applicable to the GTA/Golden Horseshoe/Holland Marsh area. For each of the selected mechanism, a corresponding indicator/measure of success should be developed.

Figure 10 1 – Mechanisms of Achieving Short and Long-term Development of the Agri-food Industry

Component	Achievable in the short-term (focus on local production, processing, distribution)	Achievable in the long-term (focus on production, processing and distribution for local, regional and export markets)
Production	Community supported agriculture (CSAs) Market Gardens Urban gardening Apprenticeships Farmer access to land Extended season technology Transfer/assistance Producer-accessible market assessment tools	Ensure existing farm land remains in production • Land trusts • Firm urban/rural boundaries • Greenbelts Long-term investment in horticultural crops – orchards, greenhouses, new crops etc • Enterprise grants
Processing	Waste reduction Incubator kitchens Link local growers to processors Improved processing ability/ capacity	Infrastructure that supports processing clusters; co-locating manufacturing industries (improved capacity) Expand processing of local produce Encourage processing/ value-added of local and other products rather than export raw materials and import processed (improved ability)
Distribution	Farm markets Farm gate sales & agri-tourism Partnerships between local growers and businesses & institutions Improving local linkages; coordinated networking	Cooperatives with distribution and marketing systems (single commodity) Cooperative distribution system for producers and processors (multiple commodities) Food procurement contracts
Retail/ wholesale	Logo (unified) Branding Marketing campaign to educate consumers Promotion of healthy eating	Food terminal area development with infrastructure /transport that supports wholesale/retail activity
Food Service	Central source linking producers and the food service industry Marketing/education	Central source linking producers and the food service industry Marketing/education
Waste & recycling	Household Food service Retail/wholesale	Improve organic waste recycling/ composting facilities available Improve apartment recycling/ composting capabilities Clearing house for recyclable goods Non-organic agricultural waste recycling
Government & Civil Society Financing & Insurance	Farmer reps on planning committees, food policy councils Assess the value of the environmental goods and services provided by agricultural production	Policies and financial incentives to ensure profitability of maintaining agricultural land in farming (e.g. tax reduction programs) Value placed on environmental goods and services
	Consumer education on farming practices, healthy eating Examine the way food travels from producer to wholesaler/ processor/ retailer Develop strategies to enable/encourage healthy consumption patterns	Regional and edge planning Policies and financial incentives that encourage processing Promotion of location of choice for agri-food industry development Plan improved transport systems that link wholesale/processing/retail Marketing body to promote Ontario/Canadian produce (raw or manufactured) on the basis of quality • Local/regional • For Export GIS-linked assessment of the resources, and use of the information to plan infrastructure and dedicated areas for cluster development
Business development, Knowledge & Innovation Training & Labour	Knowledge & Technology Transfer (KTT) of current information available on production, processing, marketing Ag advisor systems that include processing and marketing Ag-business advisors	Analysis of needs, support of research and KTT of results Development/expansion of clusters linking R&D, KTT, government policies, and marketing (e.g. Guelph Agri-Food Technology Cluster) Training for higher technical level of production operations

1 http://www.fooddowntheroad.ca/online/PDFs/fullprimer-screenres.pdf

2 http://www.region.waterloo.on.ca/web/health.nsf/4f4813c75e78d71385256e5a0057f5e1/54ED787F44ACA44C852571410056AEB0/$file/FoodSystem_Plan.pdf?openelement

3 http://www.choosingourfuture.ca/library/foundation_papers/food_agriculture_en.html

4 http://www.agf.gov.bc.ca/resmgmt/sf/planag/index.htm

5 http://www.metrovancouver.org/planning/development/agriculture/AgricultureDocs/Local_Government_Policy_Options_to_Protect_Agricultural_Land.pdf

6 http://www.metrovancouver.org/planning/development/agriculture/AgricultureDocs/AgricultureBackgrounderMarch09.pdf

7 http://www.richmond.ca/__shared/assets/viability_strategy6314.pdf (2003)

8 http://www.ualberta.ca/~bsteiner/SP%2009-04-Steiner.pdf

9 http://www.agfoodcouncil.com/initiatives.aspx

10 *http://www.agfoodcouncil.com/media/15897/buyer%20aware%20final%20report.pdf*.

11 http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/agp11922

12 http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fpdc10937

13 http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/fpdc5012

14 http://www.farmcentre.com/File.aspx?id=4d463d02-0847-4716-a812-ec7e7b9ceef7

15 http://www.businessedge.ca/archives/article.cfm/sharing-shipping-helps-food-processors-grow-savings-11794.

16 http://www.investquebec.com/documents/en/secteur/Agri-food.pdf.

17 http://www.cmm.qc.ca/fileadmin/user_upload/documents/gm_biofood.pdf

18 http://www.usda.gov/wps/portal/usda/knowyourfarmer?navid=KNOWYOURFARMER

19 https://secure.hbs.edu/isc/login/login.do

20 http://www.greatvalley.org/agri-food/pdf/Institute%20Overview%20-6-30-05.pdf

21 http://www.agsciencecenter.org/.

22 http://goodfoodlosangeles.files.wordpress.com/2010/07/good-food-full_report_single_072010.pdf

23 http://www.sagecenter.org/wp-content/uploads/2009/05/san-francisco-foodshed-assessment.pdf

24 http://www.sacog.org/rucs/ .

25 http://www.leopold.iastate.edu/foodandfarmplan.html.

26 http://www.nyfvi.org/Default.aspx

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29 http://www.vermontfresh.net/

30 http://zakonczone.ppnt.poznan.pl/networkfine/index2.htm

31 http://www.foodvalley.nl/English/Paginas/About%20Food%20Valley.aspx
http://www.foodvalley.nl/Documenten/Brochure%20Food%20Valley%20ENG.pdf

32 http://www.greenportsnederland.nl/Content/www.greenportsnederland.nl/Documenten/Greenports%202020%20challenges.pdf

33 http://www.defra.gov.uk/foodfarm/food/pdf/food2030strategy.pdf

34 http://www.defra.gov.uk/foodfarm/food/strategy/indicators.htm

35 http://www.defra.gov.uk/foodfarm/food/policy/council/pdf/cfpa-rpt-100315.pdf

36 http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/sydney

37 http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/274914/sydneys-agriculture-planning-for-the-future-forum-outcomes-report.pdf

Chapter 11—Opportunities and Challenges

11.1 Major Factors Affecting the Agri-Food Cluster in the Study Region

In order to develop an effective strategy and action plan for the study region for the next ten years, it is essential to have a good understanding of major factors, many of which are external to the study region itself that will impact on the relative success of the cluster. No one has a crystal ball that enables them to see the future infallibly but the success of the strategy hinges to a large extent on the accuracy of our ability to anticipate change and benefit from it.

Factor # 1 The Intense Fiscal Pressure On All Levels Of Government

As 2010 draws to a close, the recovery lacks robustness, leaving both senior levels of government in Canada with structural deficits, in which spending significantly exceeds revenues as a new kind of equilibrium is reached. At the provincial level, a major factor is that health care costs are rising faster [projected at 6% in the current fiscal year after cost-cutting measures] than revenue growth, leading to a fiscal situation that is not sustainable, as more and more of the Ontario budget will be needed to finance the health care bill. The provinces are looking to the federal government for more federal funding to underwrite the health care bill, as stated in the 2010 Ontario Economic Outlook and Fiscal Review: "The future of universal health care depends on the federal government providing adequate financial support to provinces and territories"[1]. Unless there is a sudden dramatic upturn in the global economy in general and the US economy in particular, the public sector will be severely challenged to spend money on any new programs and will be in a significant down-sizing mode, in terms of both the public sector workforce and program spending.

Our conclusions for the strategy are:

- implementation measures in the strategy that anticipate significant new public spending are not realistic -- the economy will rely more on private sector initiative
- a major opportunity in the strategy is to take a "smart regulation" approach. "Smart regulation" does not propose the elimination of regulation, recognizing that regulation has real value in certain circumstances, but rather focuses on using regulation wisely to add value to society and the economy.
- as levels of government downsize and restructure, there is an opportunity to achieve greater alignment of resources directed towards the promotion of the agri-food sector in the study region. Among other challenges at present is that the reality that economic development advocates are in a different reporting silo than regulatory compliance managers, often leading to conflict in which regulation impedes economic progress. Identifying a position of champion for firms in the agri-food cluster that can act as "one window" to address regulatory issues efficiently and effectively will make a major difference to the interest of business in locating in and expanding in the study region. Having more ac-

countability for economic and social results, broadly described as the "public good", for those with regulatory responsibilities will assist in changing the culture of government positively.

- The strategy can play an important role in identifying which regulations need to be tackled first and what restructuring and program alignment could be done to most benefit the agri-food cluster.
- Because the cost of health care will be the dominant public policy issue for the foreseeable future, any measures which the agri-food cluster can deliver that measurably mitigates this cost will be looked on with favour. Because there is one of the world's largest concentrations of medical research and expertise within the study area, the expanded linkage of this know-how with the agri-food cluster is a compelling opportunity to position the cluster as a world leader in managing health through food.

Factor # 2 The Cost of Energy

The agri-food cluster is a major user of energy throughout the entire value chain. Energy is used in processing and distributing farm inputs (fertilizer, crop protection materials, seed); it is used on-farm in powering farm implements such as mechanical harvesters and powering milking machines; it used in the food processing sector to transform products through drying, baking/cooking, blanching, pasteurizing and freezing; and it is vital in the distribution of food products, many of which require temperature control to the point of consumer purchase. In certain sectors, such as greenhouse agriculture, it is one of the two major operating costs.

Broadly speaking, the agri-food cluster relies on three energy sources:

- Natural gas is widely available throughout the study region and is the primary fuel source for boilers
- Gasoline and/or diesel fuel are widely used to power farm implements and trucks used in distribution
- Electricity is widely used to power refrigeration equipment and operate machines and pumps

The future for the supply and cost of energy from these three sources is varied. As a result of the discovery of the Marcellus Shale vast natural gas field extending through Quebec, New York State, Pennsylvania and West Virginia, coupled with advances in technology making recovery feasible, projections are that there will be an abundant supply of competitively priced natural gas available in the study region for the next generation. The price of gasoline is determined by the world price for a barrel of oil. It can be offset to an extent by ethanol blending should the world price for oil exceed the equivalent energy value of ethanol or biodiesel. The price of electricity is the one most affected by government policy decisions. The decision of the Ontario government to be coal-free by the end of

2014 may result in the cost of electricity in Ontario being higher per unit than nearby US states that retain coal as a major fuel source for their electrical generating stations. The price of electricity to business could be a major competitive issue if Ontario gets out of alignment with nearby US Great Lakes states. A further factor that could affect the relative cost of energy is the extent to which carbon is assigned a value. As a result of the political change of control of the US House of Representatives in the mid-term elections (November, 2010), few expect that the Obama administration will be able to move forward with meaningful "cap and trade" legislation. Thus, the time-frame for putting a value on carbon emissions may be deferred indefinitely by the world's largest economy, giving little impetus for either Canada or Ontario to act unilaterally.

Even, however, with government inaction, it is possible that measures introduced by the private sector could influence purchase decisions towards products that have either the least carbon footprint or the best sustainability index, however that might be defined. Governments' role in future might relate more to standardizing and monitoring the private sector measurement schemes on which procurement decisions are based and which information is provided to consumers rather than in imposing a specific "cap and trade" trading regime or carbon tax equivalent.

Our conclusions for the strategy are:

- Firms in the agri-food cluster that use energy most efficiently will have competitive advantage and therefore measures that improve energy efficiency should be encouraged through incentives. There are several ways in which energy efficiency can be improved. Encouraging combined heat and power systems, in which natural gas is burned to fuel turbines or reciprocating engines to generate electricity sold to the grid and the waste heat is captured and directed to the needs of the operation (for example, a greenhouse or a food processing operation). CHP also provides businesses with a means of offsetting high electrical costs when the cost of producing their own electricity is less than the cost of purchasing it from the grid. Increased use of biodigesters to process waste and convert it to energy is another solution that can be expanded in its application. Energy can be used more efficiently by reducing traffic congestion allowing for a more efficient flow of goods. Further standardization of shipping containers and conventions will reduce handling and allow faster loading and unloading. Increased use of renewable fuels in the study region, should the world price of oil make them economically viable without subsidization, will further offset any future "oil shock."
- The global price of oil will be one of chief factors that determines to what extent the agri-food cluster in the study region will be globally competitive. The higher the price of oil in real terms over the next ten years, the better positioned farms and firms in the study region will be to sell product competitively to the study region market itself and near markets with major sources of population. Correspondingly, the cost of supplying foreign markets outside the near US states will also rise making export business more vulner-

able. Several forecasters are predicting that the Great Lakes region will undergo a major renaissance, with many who have moved away (for example, from Michigan to the US south and southwest) returning, as a result of the abundance of its water resources. The anticipated higher cost of moving product by truck from California or Mexico will make it less competitive with locally grown product. It is difficult to forecast the price of oil accurately as it depends on when "peak oil" is reached when many producing fields in the Middle East go into decline. Many forecasters expect oil to rise above $100 per barrel and some anticipate its going towards $200 in the next ten years.

- Expanded use of renewable fuels might be possible, especially if oil prices rise to levels at which unsubsidized ethanol becomes a lower cost alternative than gasoline. Many vehicles carry "E85 Flex Fuel" capabilities but 85% ethanol fuel is not available commercially in Ontario. Governments could lead the way with their own procurement policies. The "food versus fuel" debate concerns the benefit to society from using cropland to produce energy crops instead of human food or animal feed. Co products from ethanol production are used as animal feed.

Factor # 3 Global Population Growth

There are two elements to the growth in world population that the UN is forecasting will occur by 2050. The first is the absolute number of additional people the world has to feed. The second is the number of calories which they will consume. While population is projected to increase 34% by 2050, global calorie consumption is expected to increase 70% as a result of increased affluence in Asia.[2] The UN projects global population to reach 9.2 billion by 2050 and Canada's population to range between 39.8 million and 49.5 million. In the most optimistic scenario, Canada's population will expand by 50% in forty years, reaching 37.9 million in 2020. Even with this growth, North America is expected to account for only 4.4% of the world's population, down from 5.1% in 2000[3] as the least populous of the five major continents (excluding Australia). In addition to significantly more global consumers, the world will have to produce their food on less land than is now in production, as urban development pressures mount across the world. An additional unknown impact is global climate change.

Our conclusions for the strategy are:

- Canada, with its large arable land area relative to its population, can be destined to play a major role in feeding the world, particularly consumers in Asia where much of the growth in population will occur. An increasing number of these consumers will be "middle class" as the economies of China and India advance and will be more affluent, looking for more protein in their diets as well as more calories. The study region is the largest agri-food cluster in Canada and can be at the forefront of a major impetus to develop a thriving export trade with Asia. To understand what the Asian marketplace needs (as those needs change), investment in trade missions and other outreach to retailers

supplying the Asian market need to be expanded. Better ways of delivering food products to Asia that are fast and affordable need to be developed, using containers that are "back hauls" for manufactured goods delivered to North America. A significant focus of the strategy must be to ship value-added products ("ready to eat") rather than raw commodities. Not only does this approach lower the per unit transportation cost but it ensures that the economic benefit is gained for the study region. Innovation in packaging may be necessary to preserve shelf life over the time products are in transit.

- The local domestic market within the GTA will be a growth market, as population there continues to grow, but it will be a different market than in the past. Many of the new consumers will be immigrants from Asia and much of the youth will be of Asian descent. There will be a higher proportion of consumers over sixty than ever before in Canadian history as the Baby Boomers age. One key to competing in this market is to understand its segmentation by both age and ethnicity and insuring that agri-food products are market-responsive. Agriculture in Ontario is dominated by farmers of Caucasian descent, many of whom are past fifty years of age, and they tend not to be well connected with the growing Asian, Hispanic, Middle-Eastern and African communities in the study region. Building better bridges between the agri-food cluster and the market will be essential.

Factor # 4 The Cost and Supply of Labour

The study of Ontario's food industry workforce done in 2006, *Workforce Ahead*, based on 2001 census data, was a comprehensive profile and analysis of the characteristics of Ontario's food processing industry. The study examined the workforce by both NAIC code and by Region. That study showed that employers in the Study Region rely heavily on immigrant labour with minimal post-secondary education training and pay wages below the average manufacturing wage. Surveys conducted of employers reported that many employers have very high turnover rates among their unskilled labour force and some rely on employment brokers for a significant portion of their regular workforce. Many workers do not have their own vehicle and therefore having employers located on a major transportation route has been essential to having a sufficient supply of skilled workers. On the farm side, many of the labour intensive greenhouse and field horticulture operations rely on foreign workers sourced through the F.A.R.M.S program. These migrant workers must be housed by their employers.

The availability of unskilled workers coming to the study region as immigrants or migrant workers cannot be assured over the next ten years. Relying on these sources of workers creates a measure of vulnerability if their flow was ever curtailed either by government policy or better alternatives being offered to them by other jurisdictions. On the other hand, given the projections of global population growth, pools of unskilled immigrant or migrant workers are probable to continue for the next ten years.

One dilemma that employers constantly must evaluate is the relative operating cost of labour (a variable cost) versus the capital cost of labour-replacing technology (a fixed cost). The decision to invest in technology that replaces labour will, in turn, be a function of the certainty of future demand. An employer that is uncertain about the future will choose to have more variable costs and one that is positive about the future will be inclined to invest in technology to replace labour. Replacing labour with capital requires certain minimum thresholds of scale. As the structure of the food distribution (retail and food service) sector becomes increasingly consolidated, firms operating in the study region will need to be of significant scale in order to supply their customers. Thus, to achieve the benefits of technology, firms may be required to merge to achieve scale or enter into other creative technology-sharing and other asset-sharing arrangements.

Ontario's minimum wage rates are now higher than most US states and will act as a deterrent to attracting and retaining labour intensive firms in the agri-food cluster. The problem is even more acute for the agricultural sector because, under the F.A.R.M.S. program, the employer must also provide housing and cover return air fares from the host country. US employers are reported to use illegal workers mostly from Mexico, thus exacerbating their minimum wage cost advantage, as these workers are paid in cash "below the radar."

Our conclusions for the strategy are:

- Policies that encourage the adoption of technology to replace labour will be important to ensure that the agri-food cluster can be globally competitive and assuring access to capital to enable technology investment will be important to a positive outcome
- Investing in technology changes the level of skills needed to operate a food processing facility – more knowledge of computer instrumentation and process control, for example – rather than unskilled manual labour. In this respect, it will be important for the agri-food cluster to ensure that the high school and community college programs are aligned with the needs of employers. Although it is not in the study region, the Institute of Food Processing Technology on the Cambridge campus of Conestoga College is a new initiative intended to meet this need and the study regions need to be connected with it.
- Investment depends on stability. All levels of government can provide regulatory stability through the consistency of the policies which they implement and enforce.
- The cost of operating a business on a strictly seasonal basis can make the business non-competitive with regions of the world with longer growing seasons since the same amount of capital investment is only recovered through a shorter season. A number of steps can be taken to mitigate the disadvantage of our relatively shorter growing season as compared to jurisdictions with which we compete. One of these steps is to act as importers for those parts of the year in which we cannot supply the market from our own production. Another is to accelerate the investment in research that will extend the season, both through varietal selection and growing systems.

Factor # 5 The Scale of Business

One of the trends that has accelerated over the past twenty years has been the consolidation of ownership and correspondingly, increases in the scale, of major players in the agri-food sector. This consolidation has been most dramatic at the distribution level as there are now four big players in the food retailing business in Ontario: Loblaws, Sobey's, Metro and Walmart. There is also one "big box" retailer: Costco. While competition among these companies for market share is fierce, they wield considerable market power over those firms which supply them. The development of upscale company brands like President's Choice (Loblaws) has provided an opportunity for smaller manufacturers, that lack recognized brands of their own, to fill a niche in supplying the retailers' own brands. The effect of competition means that the squeeze on suppliers to offer the lowest cost is relentless. The vast majority of food purchases in Ontario is made through these conventional channels. Consumers who shop at these stores are also very price conscious and during the recession tended to buy on price point more than attributes. Buyers reported, for example, that consumers were less willing to pay premiums for certified organic or antibiotic free meat. The same principle was generally true in consumer choices of buying local versus buying cheaper. Only a small segment retain their loyalty to locally produced food when it is more expensive. Any strategy must take into account that the core of consumer food purchasing occurs through these conventional grocery retailing giants. To gain efficiencies in their distribution systems, the large retailers have invested heavily in highly automated distribution centres (DCs) and are moving towards national procurement policies where one buyer sources product for all the distribution centres in Canada. These moves towards efficiency mean that firms supplying the major grocery retailers must have the capacity to fill very large orders reliably. For reasons of food safety and quality control, major retailers have ended the practice of individual franchisees buying locally from small suppliers and require that all goods move through their distribution centres.

At the same time that there is significant consolidation and increases in scale to drive efficiency, there is a counter movement towards differentiation and uniqueness. The major retailers highly value a differentiated product especially if the supplier is willing to give them exclusive rights for a period of time. This need for differentiation creates opportunity for those firms and farms that are able to offer a unique product and it therefore represents a reward for innovation. The "reward" consists of gaining market access not necessarily a price premium. The majority of new product introductions fail to gain consumer traction and are often delisted quickly.

Direct selling channels, in which farmers sell directly to consumers without the services of a distributor acting as the middleman, have gained in popularity. In urban settings, farmers' markets are the directing selling channel whereas in rural areas, farmers can have "on farm" markets. Farmers' markets have been dogged by resellers appearing together with local farmers, offering produce which they sourced at the Food Terminal, and potentially undercutting the price of those offering locally grown food. To address this issue, the Ontario government invested in the Ontario Farmers' Market Strategy that enabled four MyMarkets® to be opened in Toronto in 2008. The MyMarket® concept

restricted vendor space to local farmers that participated in a voluntary program by which they were verified as to the authenticity of the products they were selling. Consumer acceptance of the markets has been positive but they rely heavily on community volunteers for their ongoing support. Farmers' Markets Ontario has been instrumental in setting up the MyMarket® and My Verified Farmer® programs.

Our conclusions for the strategy are:

- Although it may be contrary to the entrepreneurial independence by which they are characterized, small-to-medium enterprises may benefit by closer collaboration, both with firms within the study region and alliances with firms beyond its borders, in order to have the scale necessary to supply the needs of large grocery retailers on a national or North American basis.
- There are supply chains which are heavily commoditized – that is, they centre around commodities for which the primary criterion is buying at the least cost and which are characterized by a drive to the lowest cost processor. There are also true value chains in which there is a relationship between the trading partners to move away from strictly trading commodities and delivering value through product attributes. Both of these business models have a place and they will continue to co-exist. Opportunities exist to develop relationships, especially between the farmers in the study region and the processors, that are true value chains in which there is a measure of loyalty in the relationship.
- The strength of the cluster as a whole will benefit from interconnections and cooperation across the cluster. "Local first" should be a guiding principle that applies to all components of the cluster. At this time of growing public concern about where their food comes from, this focus is not only a practical business choice in reducing the risk and cost associated with long supply lines, it is also a strong marketing tool responding to consumer needs in the domestic market. Making sure that all participants within the cluster know how and where to link to other parts of the system and have the ability to do so, in short to foster a strong value chain, will enable the cluster to thrive.

Factor # 6 – Non-food uses of agricultural outputs

Reference has already been made to the 'food versus fuel' debate as the carbon in plant and animal materials is directed towards energy recovery rather than as food. Bioenergy can be generated in a number of ways. Among the most common are:

- Ethanol is derived from fermentation of sugar cells in plant materials. A number of processes are used and different feedstocks are possible. Corn is the most common input for commercial ethanol production in Ontario. Gasoline in Ontario is often blended with up to 10% ethanol.
- Biodiesel is derived from a chemical process applied to vegetable oils. Used vegetable oil from food operations that use oil for frying is one common feedstock. Biodiesel can also

be made from virgin oil that is pressed from oilseeds like soybeans or canola.

- Biogas is derived from biodigesters in which a variety of organic wastes can be processed. During the chemical reactions, methane is released. Typically the methane is burned in engines and used to generate electricity, the waste heat being available as an alternative to a gas-fired boiler. The methane can also be purified so that it can be a substitute for natural gas.
- Biochar is an alternative to coal that is derived from a pyrolysis process from plant materials such as switchgrass or miscanthus, often referred to as "purpose grown energy crops." Commercial scale production of biochar is not yet occurring in Ontario but could be used as a renewable alternative to coal in generating stations and cement plants.

One of the challenges with all these alternatives to fossil fuels is their cost. Fossil fuels are abundant and have been cheap. Until "peak oil" is reached and the need for renewable alternatives becomes acute, bio-fuels will not be mainstream.

Other ways in which agricultural outputs are used for non-food products include traditional uses such as tanned hides from animals that are slaughtered being used to make leather goods; and pharmaceuticals that are made by extracting hormones from glands of animals that have been slaughtered. Until the 1980s, for example, when synthetic insulin became commercially available, insulin for diabetes sufferers was derived from animal pancreatic glands.

One of the emerging applications of plant materials is using the fibre in biocomposites. Biocomposites are plastic materials which derive strength from natural plant fibres.

Our conclusions for the strategy are:

- The use of agriculturally-sourced materials for innovation will continue to be important to the economy of the study region. Given the relative high cost of land in the study region, their highest value agricultural use is not likely going to lie in purpose-grown energy crops and therefore the landbase in the study region should be utilized primarily for food. Recovering value, however, from by-products of food processing will be important. The greatest opportunity in the study region may lie in biodigesters that utilize food waste to generate biogas and which can be the core of a combined heat and power application, either for a greenhouse or food processing factory. "Food waste" may consist of rendering from meat and poultry plants, stales from bread factories, and source separated organics recovered from municipal green bin programs.

1 '2010 Ontario Economic Outlook and Fiscal Review, Background Papers', The Honourable Dwight Duncan, Minister of Finance, Ch.3, Section D, p119.

2 Figures cited by Dr. David Sparling in his keynote address to the Agricultural Adaptation Council annual general meeting, December 2, 2010.

3 Source: UN Population Division based on 2008 estimates.

Chapter 12—Phase 2

Since the release of this report in January, 2011, Phase 2 of the process has been completed. For **Phase 2** of the project, a summit was held on March 30th, 2011, which was attended by representatives from all components of the food and farming cluster. A record of the Summit was prepared and is attached to this report as Appendix x. This chapter contains a summary of the main recommendations that came out of the Summit.

Using the findings in this background report, a workbook, summarizing findings to date and challenging attendees to consider identified issues, provided the basis for the day. Working in teams, participants discussed issues and prioritized strategies to grow the food and farming cluster.

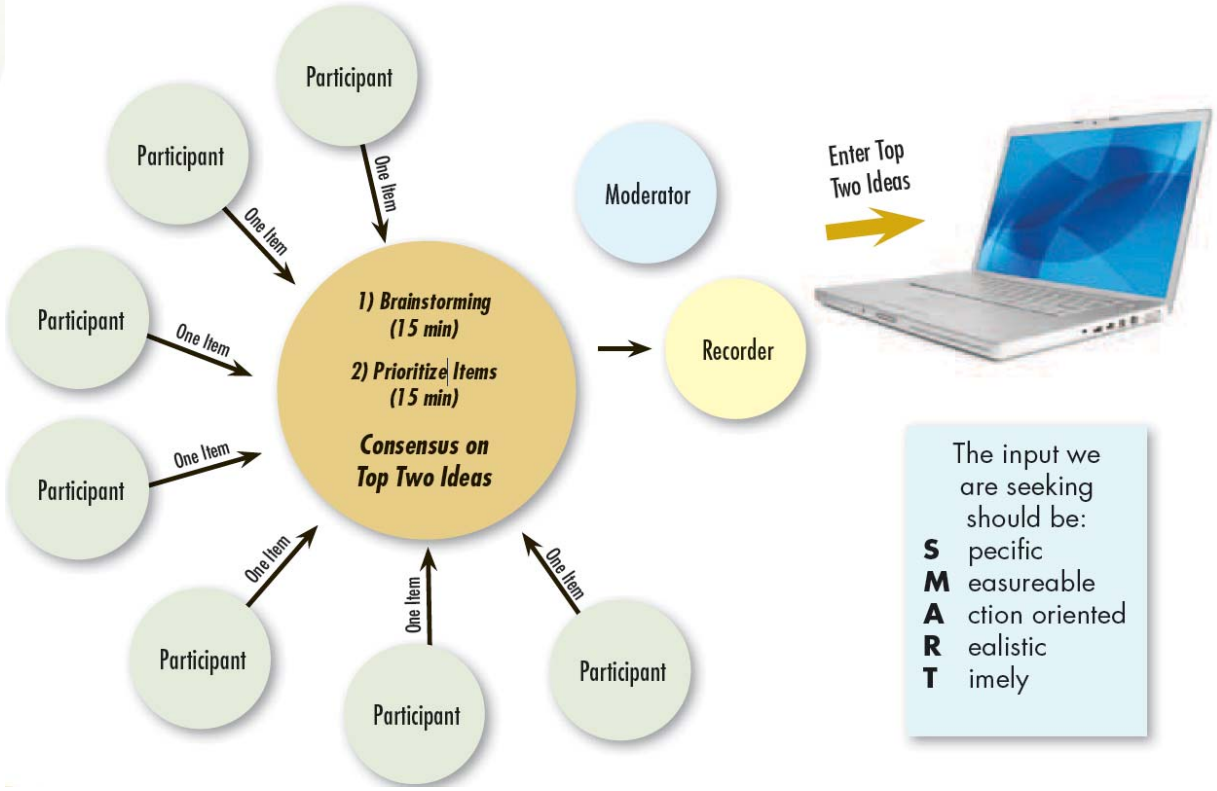
The purpose of the Summit was to identify key actions required through to 2021 to sustain and grow the Food and Farming cluster in the Golden Horseshoe. The goal was to develop a roadmap to our future; an action plan that will support profitable farming and food businesses in the Golden Horseshoe and the Holland Marsh. The ultimate aim was to develop a 10-year strategy to move all sectors, from the farm to the retailer, forward.

Summit participants developed action plans in four issue areas:

- Food and Farming Cluster: A Growth Opportunity
- Food, Health and Society
- Innovation Across the Golden Horseshoe: The Food and Farming Value Chain
- Smart Use of Regulations & Resources

For each of these areas, over 300 actions were brainstormed. The consultation process used during the Summit is outlined in **Figure 12.1**.

Figure 12 1 – Summit Process: Golden Horseshoe Agriculture and Agri-Food Strategy



During the Summit, the facilitator/recorder at each table asked the group a specific question to begin a topic. The questions included:

1. **How can soil and water resources, infrastructure and expertise be leveraged and developed to grow the economic strength of the food and farming cluster in the Golden Horseshoe?**

2. **How can consumers use food and farm products to enhance their health and well-being while reducing the public cost of health care?**

3. **How can business, government and research institutions across the study region collaborate to enhance the competitiveness and connectivity of the agri-food value chain with fair returns to farmers, food processors, merchandisers and society?**

4. **How can regulations and resources be used to ensure that food and farming will be productive and profitable?**

For each question during the Summit, participants at each table contributed ideas to their group. These ideas were then prioritized within the group, based on impact. Each table then selected their top two ideas to the Summit Moderator. The moderator then discussed and categorized these ideas

in front of all groups to form actions. These consolidated actions were then voted on by all participants based on which actions need to happen first i.e. in the next 1-2 years. Finally, the group examined the top 3 actions from each of the four issue areas and identified probable lead organizations.

This summary below contains the twelve actions which were developed during the Summit:

Issue A: Food and Farming Cluster – a growth opportunity

A.1 Strategic Vertical Integration of Industries

We need to understand demand to drive supply, make food processing an economic development priority while permitting value added processing on farm. A first step would be to improve linkages between research centres, farming and food manufacturing

Lead (s): GTA AAC ... General Farm Org... Ag Sustainability Coalition

A.2 Investment Strategy

Create an environment where both governments and the private sector are able to fund key processing facilities to ensure that the agri-food cluster is sustainable over the long term. For example, reinvestment is needed in infrastructure for storage and distribution

Lead (s): Ec Dev Officers

A.3 Develop Recognition Strategy

Regardless of whether we need a Golden Horseshoe brand, the agri-food industry profile must be raised to the number one priority in public opinion and support. It has to be the top priority in the hearts and minds of the voters to sustain a long term vision and support

Lead (s): GTA AAC

Issue B: Food, Health and Safety

B.1 Education Strategy

Work with Ministry of Education to implement agri-food curriculum into the Ontario school system. Include education on healthy nutrition and good eating. The aim is food literacy for all ages, including growing, cooking, shopping, eating and nutrition.

Lead (s): OAFE Inc. .... FoodShare Toronto ... EcoSource (Peel)

B.2 Public Procurement Policy

Including targets to create healthy food environment and stable market for farmers

Lead (s): GTA AAC, Municipalities, Local Food Plus, GreenBelt Foundation, Mayor's Countryside Alliance, Min of Health

B.3 Improve Labelling Laws.

Stop being so Canadian (nice) and demand changes to all labelling of food and apply same quality standards to imported foods. These standards must support local food and farming practices that promote a healthy and sustainable environment through the development of standards and a uniform, easily understood labelling system.

Lead (s): Fed Govt, Industry Canada

Issue C: Innovation across the food and farming value chain

C.1 Talent Strategy

Attract the best and brightest agriculture/agri-food talent to research institutions, innovation centres, colleges, and universities.

Lead (s): Colleges & Institutions, Min of Ed, Industry support for scholarships

C.2 Cultural/Demographic Thrust

Explore age related and cultural niche markets and product needs (e.g. portion sizes, packaging, nutrition, distribution, ease of eating, access, health related concerns)

Lead (s): StatsCan, Ipsos, AgCanada, EDOs (doing the research), OMAFRA, Industry (e.g. ORHMA)

C.3 Tax and Other Incentives for Reinvestment

Within businesses (private or public investment). Proactive opposed to reactive approach. Must support local food processors to upgrade or start up operations to add value to locally grown products

Lead (s): Min of Ag & Food, Finance, MPAC, CFIB

Issue D: Smart use of regulations and resources

D.1 Create "One Window" Approvals Contact

For farmers wanting to expand or innovate operations (e.g. start up food processor). Enact coordinated policies to support food and farming throughout the region and streamline approval processes to reduce cost, complexity and approval times.

Lead (s): MMAH, MOE, MNR, Conservation Authorities, Holland Marsh Growers, Industry Associations (CMA)

D.2 Funding for Farmers to be Environmental Stewards of the Land

For examples, initiatives focused on reforestation, soil erosion, pollinator habitat, carbon sequestration, biodiversity, watershed management, etc. We must increase environmental farm plan funding to allow for more projects to succeed and help public recognize the ecological benefits farms can provide.

Lead (s): MNR, MOE, Credit Valley Conservation (pilot), ALUS, OFA, AAFC, ROMA

D.3 Legislative levers.

Don't assess value-add farm activities as commercial or industrial. Develop planning regulations that nurture and permit on-site value-added opportunities without adding tax burden to the farmer

Lead (s): Mayors, Municipalities, local planning departments, MMA, AMO, ROMA

Chapter 13—The Strategy

A plan is required to support this unique, geographically based cluster and build on what already exists by acting on the findings of the research. The basis of a strong cluster is present; this fact needs to be broadcast and actions taken to enhance the conditions required for the cluster to grow. In this final chapter based on the research done and the extensive consultation we have laid out a plan to support and nurture the food and farming cluster in the Golden Horseshoe (GH).

WHAT SHOULD THE PLAN ADDRESS

The potential for the Golden Horseshoe food and farming cluster to grow cannot be taken for granted. As illustrated in this report, there are challenges that need to be understood and addressed. The food and farming cluster is diverse. Paradoxically, while the defining characteristics of the cluster make it resilient, there has been a lack of focus and collective purpose in formulating integrated policies to support and nurture its growth.

Key challenges faced by the food and farming businesses in the region are complex.

Despite the quality of the agricultural resource and land use policies to protect prime agricultural land for production, the land base for agriculture in the Golden Horseshoe continues to decline. Despite the creation of the Greenbelt, the agricultural sector struggles for attention in this rapidly urbanizing region. Additional actions are required to ensure farming in the region is profitable so farmland remains in production.

A food and farming cluster is an intricately linked system with various components supporting other components. To support a healthy regional cluster, linkages that benefit local businesses are essential. Having a strategy in place to foster regional linkages is a key feature of successful clusters.

Research confirms that the regional linkages within the food and farming system in the Golden Horseshoe are not well developed. Actions are required to manage the value chain by strengthening the linkages between local producers, processors, retailers and food service operations.

Other challenges impacting the Golden Horseshoe food and farming cluster include:

- fierce competition for land which,
    a. drives land prices beyond the reach of farmers and results in the conversion of farmland to other uses; and
    b. impedes the development of new business and the expansion of existing businesses;
- lack of public and political awareness about the opportunities and advantages associated with the food and farming cluster;
- multiple, disjointed regulations and policies that detract from the ability to do business efficiently;
- Consolidation in the number of major buyers in the grocery retail and food service sectors;
- congestion that negatively affects the efficient movement of goods and the cost of transportation;
- rising costs of energy and uncertainty over the impact of global climate change;
- expanding urban-based infrastructure that impacts the ability to farm efficiently;

picture of tractor on urban road

- lack of integration among different parts of the cluster; and
- gaps in infrastructure that frustrate integration.

By addressing and managing these challenges, farmers, government, business and other stakeholders will help the cluster flourish.

KEY FACTORS FOR SUCCESS

What is required for a cluster to thrive? Economists have highlighted three main drivers of cluster development beyond the initial "economic geography":

- Input-output linkages (specialized suppliers, large, sophisticated customer base, producers of complementary products and services);
- Labour market pooling; and
- Knowledge spillovers.[1]

Each of these drivers is present in the cluster but as discussed in previous chapters, there are challenges associated with each of these factors which must be addressed in the Action Plan.

In addition to the challenges present, there are many positive trends that support a strong, growing and dynamic food and farming cluster in the Golden Horseshoe.

- The demand for local food is growing;
- The public is questioning the sustainability of a food system built on imported products transported for thousands of kilometers;
- Interest in sustainable healthy lifestyles is growing;
- The rise in private label brands has created an opportunity for small and medium sized enterprises;
- Small and medium sized businesses that can innovate and respond rapidly to changes in the market dominate the cluster;
- All three levels of government that supports the agri-food cluster both through business advisory services and specific programs;
- There are industry associations that represent the interests of firms in the cluster on such matters as regulatory policy development in relation to labeling, food safety, etc. There is capacity at post-secondary institutions to provide skills training for workers in the cluster as well as advanced research to address the needs of firms in the cluster;
- There are firms in key supporting industries such as packaging firms and warehousing and distribution companies.

Success depends on strong leadership and a commitment from the diverse partners identified in the plan, to build on these opportunities, address challenges and work together towards common goals. If each partner does their part, with the assistance of strong and focused leaders, the result will be the emergence of a stronger, more secure food and farming cluster in the Golden Horseshoe. The cluster will be an engine for economic growth that will sustain food production and healthy living in the region and beyond for future generations.

Successful cluster development consists of a collective, cooperative effort in bringing together people, businesses ideas and enabling infrastructure to solve problems and support growth. This Action Plan will make this effort and in doing so will provide strong leadership, progressive policies and cooperative action to address challenges and capitalize on opportunities. In this day when access to safe and healthy food is a growing concern in many nations, there is an obligation to future generations to ensure that the Golden Horseshoe retains and expands its role as a leading food and farming cluster. This plan will fulfill this obligation.

CHOSING THE ACTIONS

The Food and Farming Action Plan for the Golden Horseshoe must provide a blueprint for supporting and growing a thriving, integrated food and farming sector in the Golden Horseshoe. It must respond to the common challenges and opportunities the area shares. These challenges and opportunities arise from the large concentration of population, growth pressures, juxtaposition of agricultural and urban land uses, myriad of regulations and overlapping agencies, and cluster of food and farming enterprises located within it.

One of the fundamental guiding principles established by the Steering Committee in preparing the Action Plan was to avoid duplication of effort and build on existing work that addresses food and farming issues. Work that is provincial or national in scope is beyond the mandate of this Plan. However, much of the work being done on a wider scale addresses issues that impact the Golden Horseshoe. Therefore this complementary work and other work related to food and farming issues was reviewed to incorporate relevant findings and build on proposed actions relevant to the Golden Horseshoe. Identified tasks were structured to avoid duplication, ensure effective use of resources and optimize cooperation.

Each of the partners in this process has been working on advancing food and farming interests. This Action Plan builds on past results and incorporates plans that are ongoing. Where one partner is advanced in the management of a particular issue, their lead role will continue and the positive experiences and lessons learned about the issue will be applied to the entire Golden Horseshoe.

There are many actions that could be implemented to address these challenges. However to be effective, the number of actions chosen must be limited. As basic criteria for chosing the actions the Steering Committee focused on actions that would **enhance competitiveness**, **promote sustainability** and **remove barriers** that stand in the way of achieving these goals.

This plan focuses specifically on actions that support food and farming businesses in the Golden Horseshoe. To assess which actions should be included in the plan, representatives of the food and farming cluster used three fundamental tests:

- Is the action addressing a Golden Horseshoe specific issue?
- Will the action make a real difference to the future of food and farming in the Golden Horseshoe?
- Is the action realistic and therefore achievable?

Specific goals that were used to select actions and tasks were:

- creating a positive environment for investors;
- seeding new enterprises through commercialization and incubation;
- attracting global enterprises as their preferred investment destination;
- protecting the land base for agriculture and create the circumstances that support profitable, sustainable farming in the Golden Horseshoe;
- raising public awareness about the contribution of the food and farming cluster to health;
- growing the food and farming cluster by using the experience and connections of the Golden Horseshoe's diverse population to open markets for food and farming products in countries with rapid economic and population growth;
- building first class infrastructure to service the food and farming cluster; and
- increasing access to locally grown food, promoting a consumer culture of quality over price and celebrating regional product.

The Greenbelt is the common bond shared by all of the partners responsible for this action plan. It defines and differentiates the Golden Horseshoe and combined with the Oak Ridges Moraine Plan and the Growth Plan for the Greater Golden Horseshoe, provides a unique mechanism for implementing area specific actions.

Greenbelts are works in progress around the world. There are valuable lessons to be learned and applied as the concept evolves. One of the prominent goals of greenbelts is to protect and promote food production; however when the Ontario Greenbelt was established, farmers within it were concerned that their interests were not addressed. This Action Plan will address those concerns, monitor the evolution of the Greenbelt and set up a mechanism for providing input to the scheduled 2015 review.

It sets out clear goals and roles and provides a reference point for measuring achievement.

THE TIME FRAME

The timing of this Action Plan is opportune. There is a convergence of circumstances including the growing interest in local food and the search for sustainable economic forces that support implementation of a successful plan. To build on this advantage, an appropriate time frame was required.

The time frame chosen covers a ten year period from 2011 to 2021. This timeline was selected in response to election timetables at the municipal and provincial levels, census cycles, and to incorporate the scheduled review of the Provincial Policy Statement in 2012 and the Greenbelt Plan in 2015.

A ten year time frame allows sufficient time to achieve the longer term goals, and is of manageable duration when asking partners for commitments.

SUCCESSFUL IMPLEMENTATION

To be successful, the actions must be implemented by:

- Assigning lead responsibilities to committed, capable partners, who can provide the necessary leadership, sustain consensus and achieve results;
- Establishing clear goals and corresponding measures for success;
- Establishing timelines for important implementation milestones; and
- Monitoring progress achieved, reporting on outcomes, and celebrating wins.

Finally, the plan must be implemented as a complete package. “Cherry picking” individual parts will not achieve the goals. The actions and tasks must work together as a co-ordinated plan.

As part of this plan, implementation tasks are identified. These are just a starting point. The Steering Committee recognizes that to be successful, they must engage partners with experience in many areas. These partners will contribute to the implementation by bringing their expertise to specific actions and by contributing ideas that may change the actions taken. Therefore this plan should be viewed as a starting point with opportunity for review and adjustment an inherent part of the process.

THE ACTION PLAN

The Golden Horseshoe is fortunate to be the home to a food and farming cluster that is diverse and multi-faceted with tremendous potential to expand. The essential elements of this cluster are well-established, anchored in the prime agricultural land base. What makes the Golden Horseshoe so unique and well suited to food and farming includes:

- a combination of rich soil, abundant fresh water and a moderate climate;
- a well established food and beverage manufacturing sector, linked to the food and beverage processing cluster;
- a concentration of food retail and food service businesses driven by entrepreneurs;
- access to abundant skilled labour; and
- multi-modal transportation systems.

THE VISION

This plan proposes actions to be implemented over the next ten years that will result in the realization of the following vision.

The Golden Horseshoe is globally renowned as a vibrant food and farming cluster, characterized by profitable farming operations, a thriving hub of food processing, food retail and food service businesses, extensive research capacity, innovative technology, and a wide range of healthy and safe products.

As the plan is implemented, this vision will be the test against which actions and tasks will be measured to ensure they are meeting the objectives and will contribute significantly to its implementation.

OPPORTUNITIES FOR CHANGE

The action plan is focuses on five opportunities to achieve the vision.

A. GROW THE CLUSTER

Grow the Golden Horseshoe so it becomes the leading food and farming cluster in the world, renowned for healthy and safe products.

B. LINK FOOD, FARMING AND HEALTH

Educate current and future consumers about the importance of locally sourced food and farming products for enhancing their health and well-being.

C. FOSTER INNOVATION

Encourage and support innovation to enhance the competitiveness and sustainability of the Golden Horseshoe food and farming cluster.

D. ENABLE THE CLUSTER

Align policy tools and their application to enable food and farming businesses to be increasingly competitive and profitable.

E. CULTIVATE NEW APPROACHES

Pilot new approaches to support food and farming in the Golden Horseshoe.

In the next sections, the details of how each of these opportunities will be utilized, the appropriate time frames for implementation, potential partners and measures of success are outlined

THE VISION

The Golden Horseshoe is globally renowned as a vibrant food and farming cluster, characterized by profitable farming operations, a thriving hub of food processing, food retail and food service businesses, extensive research capacity, innovative technology, and a wide range of healthy and safe products.

A GROW THE CLUSTER

Strategy	**Grow the cluster by coordinating economic development, finding the voids, filling the gaps, and building on strengths in the Golden Horseshoe.**
Action A1	Implement the Golden Horseshoe Food and Farming Action Plan.

Task A1.1	Create the Golden Horseshoe Food and Farming Alliance (GHFFA) after determining effective governance arrangements to oversee implementation of the Action Plan.
Partner	GTA AAC City of Hamilton, Region of Niagara, Greenbelt Foundation, OMAFRA, AFC (also need representatives from Boards Post Secondary Institutions, Research and Food Processing Associations)
Timeline	Short Term (ST)
Measure	GHFFA established and funded with mandate from Regional governments to implement Action Plan

Task A1.2	Develop communications plan and materials for targeted distribution
Partner	
Timeline	
Measure	

Task A1.3	Deliver a call to action to engage partners and key stakeholders.
Partner	GHRRA
Timeline	ST
Measure	Partners identified for each action

Task A1.4	Confirm committed, capable partners who can deliver results.
Partner	GHRRA
Timeline	ST
Measure	Partnerships confirmed for each action and task

Task A1.5	Proactively facilitate and monitor implementation of the Action Plan
Partner	GHFFA
Timeline	Status of tasks
Measure	Progress achieved

Task A1.6	Report on outcomes to partners and stakeholders and celebrate wins regularly.
Partner	GHFFA
Timeline	OG
Measure	Effective communications strategy in place

Action A2	Align and strengthen dedicated economic development and planning resources to support the food and farming cluster in the Golden Horseshoe.

Task A2.1	Ensure our municipal partners in the Golden Horseshoe have a committed food and farming economic development function.
Partner	Regional Governments
Resource	
Timeline	ST
Measure	Economic Development function in place for each jurisdiction

Task A2.2	Align economic development and planning roles to enable sector growth.
Partner	Regional Economic Development Officers and planners
Timeline	MT
Measure	Aligned strategies in place for both planning and economic development in each region

Task A2.3	Support establishment of a forum where the economic development officers work together and with their provincial and federal counterparts.
Partner	Economic Development officers (municipal provincial and federal)
Timeline	ST
Measure	Forum established and meets with regularly

Action A3	Develop solutions to close gaps in the infrastructure required to support the food and farming industry.

Task A3.1	Identify the production, processing, distribution and marketing infrastructure required to achieve integration between different parts of the cluster.
Partner	Economic Development officers
Timeline	MT
Measure	Completed needs assessment

Task A3.2	Complete and maintain an inventory of existing production, processing, distribution and marketing infrastructure that supports food and farming activities.
Partner	Economic Development officers
Timeline	MT
Measure	Completed inventory with mechanism for ongoing updates

Task A3.3	Identify gaps in infrastructure that are inhibiting growth in food and farming operations.
Partner	Economic Development officers
Timeline	ST
Measure	Completed GAP assessment

Task A3.4	Attract investment to create or renew infrastructure to address identified priority gaps.
Partner	GTMA, Ministry of Economic Development and Trade, Industry Canada
Timeline	MT
Measure	Capital committed to improving infrastructure

Action A4	Expand existing and cultivate new markets by leveraging the cultural diversity of the Golden Horseshoe.

Task A4.1	Survey existing documentation and research on ethnic markets and identify research gaps.
Partner	Toronto Food Policy Council
Timeline	
Measure	

Task A4.2	Undertake demand analysis for world foods in the Golden Horseshoe.
Partner	Vineland, Economic Development officers, OMAFRA Grower Associations
Timeline	ST
Measure	Demand analysis complete

Task A4.3	Identify and target food retailers, food processors and foodservice to test Golden Horseshoe products for domestic and global markets.
Partner	Industry Associations, Retailers, Distributors Foodland Ontario
Timeline	MT
Measure	Completed market assessment

Task A4.4	Communicate the findings of domestic demand analysis and international opportunities to key businesses in the value chain.
Partner	GTMA Industry Associations, OMAFRA , OMAFRA AFC MEDT
Timeline	OG
Measure	Effective communications strategy implemented

B LINK FOOD FARMING AND HEALTH

Strategy	Work closely with a broad range of stakeholders to educate and inform consumers about healthy food products from the Golden Horseshoe.
Action B1	Increase local food literacy with a focus on youth.

Task B1.1	Investigate and compile listing of current programming being offered related to food literacy
Partner	
Timeline	
Measure	

Task B1.2	Design and offer an updated curriculum through the primary and secondary education system to engage students in healthy nutrition and good food choices.
Partner	OAFE, Foodshare, Contract Foodshare Boards of Education
Timeline	MT
Measure	Curriculum complete and being delivered

Task B1.3	Support and promote regional school breakfast and lunch programs that encourage healthy food choices using local food products.
Partner	Ministry of Education, Public Health agencies Parent Associations Program Delivery Groups
Timeline	ST
Measure	%age of program in place at GH schools

Task B1.4	Support and promote healthy local food choices through colleges and universities.
Partner	Ministry of Colleges and Universities Contract Catering, Public Sector Alliance
Timeline	MT
Measure	%age of programs in place

Task B1.5	Support and promote healthy local food choices to youth associations.
Partner	Public Health agencies Sport Associations 4-H Boys and Girls Clubs, Scouts and Guides OAFE
Timeline	MT
Measure	Number of programs in place

Action B2	Secure the mandate for local health units within Golden Horseshoe communities to promote increased consumption of local food.

Task B2.1	Educate community members about the contribution that local food makes to healthy eating choices.
Partner	Public Health Units
Timeline	ST
Measure	All GH Public Health Units participating with effective programs

Task B2.2	Encourage the marketing of the Golden Horseshoe food and food products be incorporated into the health promotion agenda and programs.
Partner	Public Health Units
Timeline	MT
Measure	Increased profile for GH food and farming products

Action B3	Expand the use, management and impact of the Foodland Ontario brand.

Task B3.1	Expand the Ontario branding to include value added products using locally grown ingredients.
Partner	Foodland Ontario, Ministry of Tourism, (RTO's) OCTA
Timeline	MT
Measure	Branding for GH food and farming products in place

Task B3.2	Support labeling innovation that gives consumers more information about local food choices such as point of origin, date of harvest and processing activity.
Partner	OMAFRA, Competition Bureau, OFA CFA Industry Canada CFIA
Timeline	MT
Measure	Improved labelling

Task B3.3	Encourage increased on-going training of store staff to provide accurate representation of local foods.
Partner	Retailers Foodland Ontario
Timeline	MT
Measure	Improved staff training – higher profile for local foods

Task B3.4	Conduct public campaigns aimed at informing consumers about local food and ornamental product choices.
Partner	~~OMAFRA~~ Foodland Ontario Public Health Media
Timeline	OG
Measure	Effective marketing campaign designed and in place

C FOSTER INNOVATION

Strategy	Position the agriculture, food processing, food retail and food service sector in the Golden Horseshoe as "the place to do business".
Action C1	Identify and develop avenues that provide access to business planning, capital, opportunities for market development and enable commercialization of new food and farming products.

Task C1.1	Communicate and build awareness among key stakeholder groups to support action.
Partner	
Timeline	
Measure	

Task C1.2	Complete an inventory of commodities and processing capabilities available in the Golden Horseshoe and match buyers with sellers of food and farming products.
Partner	Economic Development officers OMAFRA Industry Associations Brokers
Timeline	ST
Measure	Inventory complete

Task C1.3	Support incubators that provide access to capital and training for food processors and farmers.
Partner	ARIO, OMAFRA, AAFC, Regional Governments, ~~Agriculture Adaptation Council~~ Vineland Research Centre, Ministry of Research and Innovation Toronto Food Business Incubator
Timeline	LT
Measure	Incubator programs in place

Task C1.4	Develop an innovation marketplace where new products can be introduced to consumers rapidly for evaluation and testing.
Partner	~~ARIO, OMAFRA, Vineland Research Centre, Grocery retailers~~, Ministry of Research and Innovation Canadian Federation of Independent Grocers
Timeline	MT
Measure	Market access points available for a range of products

Task C1.5	~~Create~~ Identify a pool of government and private sector funds, complementing commercial lenders, which is focused on investments in identified priorities such as agricultural infrastructure, food and beverage processing facilities and technologies that are targeted to growth markets.
Partner	FCC, Banking Institutions EcoInvest, ACC
Timeline	MT
Measure	Capital available

Action C2	Attract entrepreneurs and skilled people to the food and farming cluster.

Task C2.1	Market the Golden Horseshoe as the place to invest in food and farming business.
Partner	GTMA OMAFRA, Ministry of Economic Development and Trade, Regional Governments Invest Toronto, AG Canada, DFAIT
Timeline	MT
Measure	Marketing program in place

Task C2.2	Develop cooperative, apprenticeship, field placements scholarship and mentoring programs that introduce people to careers in food and farming.
Partner	OAFE, Ministry of Training, Colleges and Universities, Educational institutions Workforce Planning Boards Conestoga College
Timeline	MT
Measure	# and range of programs in place

Task C2.3	Encourage the development of a seed fund to compete globally for innovative and talented entrepreneurs in the food and farming sector.
Partner	Industry Canada, Ministries of Economic Development and Trade and Research and Innovation CFDC
Timeline	MT
Measure	Seed funding available

Task C2.4	Develop Food and Farming Entrepreneur programs directly linked with Colleges and Universities.
Partner	Ministry of Colleges and universities EDO's
Timeline	MT
Measure	

Action C3	Invest in training and applied research that supports and grows the cluster.

Task C3.1	Work closely with Universities and Colleges to match recent graduates with food and farming companies that need employees.
Partner	Universities and Colleges Economic Development Officers
Timeline	MT
Measure	Programs in place, graduates placed

~~Task C3.2~~	~~Examine existing educational offerings in the Golden Horseshoe post-secondary institutions and identify and promote additional programming that would support the food and farming cluster.~~
~~Partner~~	~~OAFE~~
~~Timeline~~	~~MT~~
~~Measure~~	~~Food and farming programming in place~~

Task C3.2	Build awareness and support publicly funded applied research that will give food and farming firms in the Golden Horseshoe cluster a competitive advantage in production and marketing. .
Partner	NSERC, Vineland, Grower Associations
Timeline	MT
Measure	Food and farming programming in place

D ENABLE THE CLUSTER

Strategy	Harmonize regulations, provide one-stop shopping for approvals and create an "open for business" environment.
Action D1	Harmonize and improve policy tools in the Golden Horseshoe (e.g. provincial policies, Official Plans, taxation, regulations) for consistent implementation responsive to the needs of food and farming businesses.

Task D1.1	Review regulations and policies to identify issues and conflicts, and work to resolve them.
Partner	Regional Governments, Conservation Authorities, Niagara Escarpment Commission
Timeline	LT
Measure	Streamlined process, reduced approval times and cost

Task D1.2	Encourage jurisdictions responsible for land and water management within the Golden Horseshoe to harmonize regulations in a manner that is responsive to the needs of near urban, urban and rural farming operations.
Partner	Regional Planning Commissioners, Conservation Authorities, Niagara Escarpment Commission
Timeline	LT
Measure	Harmonized regulations

~~**Task D1.3**~~	~~Establish agriculture as the pre-eminent land use in the rural area with precedence over all other uses.~~
~~Partner~~	~~MMA, M of PIR~~
~~Resource~~	
~~Timeline~~	~~MT~~
~~Measure~~	~~Revisions to the PPS, Growth Plan and Greenbelt Plan~~

Action D2	Develop policies and programs to support profitability for food and farming businesses.

Task D2.1	Update land use policy (PPS, etc.) to provide flexibility for value retention and value added food and farming businesses similar to Niagara Region.
Partner	MMAH, Regional Planning Commissioners OMAFRA
Timeline	MT
Measure	Adjusted LEAR process to integrate climate as a factor, specialty crop evaluation process in place

Task D2.1	Assess prime agricultural land categorizations as more and better information on the impact of climate change becomes available.
Partner	OMAFRA University of Guelph
Timeline	MT
Measure	Adjusted LEAR process to integrate climate as a factor, specialty crop evaluation process in place

Task D2.2	Use various planning tools (e.g. community improvement plan approach) to foster supports to farming.
Partner	MMA, OMAFRA
Timeline	LT
Measure	Innovative planning tools to support agriculture in place, flexibility in planning policy to allow innovation

Task D2.3	Enhance coordination of 'Farm Fresh' and 'Culinary Trail' programs to showcase the celebration of farming to residents, tourists and visitors to the region.
Partner	Ministry of Tourism and Culture OCTA, OFFMA
Timeline	MT
Measure	Co-ordinated, complimentary programs in place across GH

Action D3	Establish a food and farming champion to drive a one-window approach in each region to enable food and farming businesses to succeed.

Task D3.1	Appoint a senior official in each municipal jurisdiction to assist food and farming entrepreneurs to navigate approval processes and provide feedback to all regulatory authorities on ways to expedite review and approval processes.
Partner	Regional Governments
Timeline	ST
Measure	Function in place in all Regional and local governments

Action D4	Align provincial and municipal taxes and fees to support food and farming businesses and innovation.

Task D4.1	Define on farm value retention and value added activities as agricultural uses for taxation purposes.
Partner	Ministry of Revenue Federations of Agriculture
Timeline	LT
Measure	Definition in place

Task D4.2	Work to secure property taxation policies that encourage long-term land rental agreements for agriculture.
Partner	Ministry of Revenue
Timeline	MT
Measure	Taxation program in place

Task D4.3	Standardize development charges for agricultural use buildings throughout the Golden Horseshoe.
Partner	Regional and local governments
Timeline	MT
Measure	Standard Development Charge fees for food and farming in place across region

Task D4.4	**Encourage task incentives for innovation in the food processing sector**
Partner	Provincial and federal governments
Timeline	
Measure	

E. CULTIVATE NEW APPROACHES

Action E1	Design, pilot and implement a system to acknowledge and reward food and farming sector for providing ecological goods and services.

Task E1.1	Research, design, pilot and implement different approaches to acknowledge and reward farmers for the provision of ecological goods and services.
Partner	Conservation Authorities OSCIA County Soil and Crop Associations Livestock Associations
Timeline	MT
Measure	Goods and services program in place

Task E1.2	Monitor implementation of pilot programs and seek opportunities to build upon successes.
Partner	GHFFA
Timeline	Ongoing
Measure	Number of successes

Task E1.3	Design and implement a program to inform the public about food and farming environmental best practices.
Partner	Federations, OMAFRA
Timeline	MT
Measure	Program in place

Task E1.4	Establish a program, at the Golden Horseshoe regional level, to acknowledge and promote environmentally progressive practices in the food and farming sector.
Partner	OSCIA Conservation Authorities
Timeline	MT
Measure	Program implemented and awards made

Action E2	Develop and implement realistic local food, beverage, bioproducts and ornamentals procurement policies for public and broader public sector agencies.

Task E2.1	Develop and disseminate consistent, realistic local food, beverage, bio-product, ornamentals procurement policies for public agencies.
Partner	Toronto Food Policy Council Regional Municipalities
Timeline	ST
Measure	Procurement policy complete and available

Task E2.2	Monitor policy changes and broad impacts.
Partner	GHFFA
Timeline	OG
Measure	Up to date reports

Task E2.3	Create a recognition program for broader public sector for best practices in food procurement
Partner	Broader Public Sector Alliance
Timeline	
Measure	

Action E3	Conduct research into the shifting conditions affecting farming and in urban and near urban areas of the Golden Horseshoe.

Task E4.1	Track the trends, e.g. shifting demographics and preferences, changing climate, international trade and economic conditions, and development pressures, and assess impacts on food and farming.
Partner	OMAFRA Statistics Canada
Timeline	MT
Measure	Reliable, accessible up to date data

Task E4.2	Promote research into varietal choices, growing practices, harvesting, handling and processing practices in the region.
Partner	OMAFRA Vineland Research Centre Simcoe
Timeline	OG
Measure	New varietals and practices in place

Task E4.3	Track the trends related to green spaces, community gardens and urban agriculture.
Partner	Regional planners Toronto Food Policy council
Timeline	MT
Measure	Inventory of to green spaces, community gardens and urban agriculture.

Task E4.4	Develop a land rental agreement that permits long term secure rental of public land for food production.
Partner	Conservation Authorities municipalities
Timeline	MT
Measure	Agreement in place for 10 to 20 year rental agreements for agriculture on public land

Task E4.5	Maintain and preserve agricultural production in the new Rouge Park with TRCA and Parks Canada
Partner	TRCA Parks Canada
Timeline	
Measure	

Action E	Actively participate in review of the Greenbelt in 2015.

Task E1.1	Prepare a credible position for improvement of Greenbelt Plan policies and/or their implementation from a food and farming perspective.
Partner	~~Greenbelt Foundation~~ Federations
Timeline	2015
Measure	Position articulated and supported by member groups

Task E1.2	Track relevant indicators inside and outside Greenbelt to assess its impact.
Partner	Greenbelt Foundation, Statistics Canada Federations OMAFRA
Timeline	LT
Measure	Comprehensive Greenbelt specific data available for 2015 review

Task E1.3	Engage food and farming sector to prepare for and be part of the review process.
Partner	Federations, Christian Farmers NFU
Timeline	MT
Measure	Participation from all regions

MOVING FORWARD

COORDINATION AND COOPERATION

Coordination, cooperation and maximizing use of resources will be key requirements in implementing this action plan. The plan will not duplicate efforts; it will build on existing efforts and achieve success through cooperation. The plan will be aligned with complementary initiatives such as the national food strategy. The plan is not static.

In formulating this plan attention was paid to the fact that unless there is a sudden dramatic upturn in the global economy in general and the American economy in particular, the public sector will be severely challenged to spend money on any new programs and will be in a significant down-sizing mode, in terms of both the public sector workforce and program spending. In response, care was taken to propose actions that can be taken with minimum financial investment from governments.

This action plan is a dynamic, living plan, like the cluster it promotes. Therefore, the Golden Horseshoe Food and Farming Action Plan 2021 must be reviewed and updated on a regular basis.

LEADERSHIP

Because the implementation of the action plan involves a series of actions that will occur under the leadership of different champions, there will be a vital role for an overarching body committed to monitoring the process, working with the partners on their different tracks, measuring success and making adjustments when required. In order to implement the Golden Horseshoe Food and Farming Action Plan 2021, a new governance model will be created.

Comprised of representatives of the Greater Toronto Area Agricultural Action Committee, the City of Hamilton, the Greenbelt Foundation and the Region of Niagara, the **Golden Horseshoe Food and Farming Alliance (GHFFA)** includes farmers, industry representatives, economic development officers, politicians and agency representatives, all with a common interest: fostering the food and farming cluster in the Golden Horseshoe. Supported by the seven senior municipal governments in the Golden Horseshoe, and working with committed partners at the provincial and federal levels, this team is in place with the energy and commitment to oversee the implementation of this action plan.

NEXT STEPS

There is much to be done. We are determined that in 10 years we will have achieved our vision. We are convinced that that the Golden Horseshoe will be:

- globally renowned as a vibrant food and farming cluster, characterized by profitable farming operations and a thriving hub of food processing, food retail and food service businesses; and
- recognized and valued for its extensive research capacity, innovative technology, and a wide range of healthy and safe products.

Food is a fundamental need which the Golden Horseshoe has the ability to produce for its residents, for Canadians and for the world. Implementation of this plan will ensure that this ability is appreciated, protected and nurtured.

1 Delgada et all, 2010.