

**ONTARIO AGRICULTURAL ECONOMICS AND
BUSINESS**

RESEARCH AND SERVICES COMMITTEE

2005 ANNUAL REPORT

**TO
ONTARIO AGRICULTURAL SERVICES
COORDINATING COMMITTEE**

February 2006

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1 Executive Summary

The purpose of Agricultural Economics and Business Research and Services Committee (AE&BRSC) is to identify and prioritize the future agricultural economics and business research and service needs of Ontario's agri-food industry stakeholders.

Ontario Farm and Agri-Business owners, managers and workers are struggling to balance the challenges of business viability, environmental sustainability, food safety and quality assurance, and community and public support for the agri-food industry.

To help the Ontario Agri-food Industry meet these challenges, the Ontario Agricultural Economics and Business Research and Services Committee recommends that research be undertaken to address the following issues listed in priority sequence:

- I. Competitiveness of the Agri-Food Industry
- II. Business Impacts of Environmental Sustainability and Food Safety/Quality Requirements on the Agri-Food Industry
- III. Risk Management
- IV. Agricultural Business Management Practices
- V. Market Opportunities
- VI. International Trade Opportunities and Threats
- VII. Agri-Food Industry and Rural Countryside Linkages

The Research Priorities contained in the 2002-2006 Strategic Report have been largely incorporated into the Priority Issues of the OMAF/University of Guelph **Resources Management and Environment Research Program**. Those issues are:

- Efficient Nutrient Management
- Climate Change - Mitigation and Adaptation
- Threats to Water Resources - Water Quality and Quantity
- Evaluating Best Management Practices
- On-Site Waste Management and Treatment
- Enhanced Agri-Food Business Management
- Innovation and Development of Market Opportunities
- Risk Management Policy
- Optimizing Trade Agreements
- Open category

A detailed list of research projects being undertaken in each of these priority issues can be found in Appendix III.

Value chains were the first issue listed under the priority of '*Competitiveness of the Agri-Food Industry*' in AE&BRSC's 2002-2006 Strategic Report. OMAF's New Directions 2004 and 2005 Research Programs listed Value Chains as one of the three priority research areas of interest. Current value chain projects are listed in Appendix IV.

2. Industry/Sector Scan

At the January 2006 Committee Meeting, the Agricultural Economics and Business Research and Services Committee grouped a number of issues and opportunities facing the agriculture and food industry into four major headings. While there is much cross over between each of the four, these are seen as the major topics to be dealt with as we move forwards to identify research priorities for the coming years:

I - A Canadian farm and food policy for the future

- Comparative evaluation needed on the various farm income studies, surveys, and policy papers completed over the past two years.
- What is the role of government?
- How does Canada reconcile the various marketing structures and institutions which occur in different sectors of the industry?
- Is Canada's current "Balanced Trade Position" our best international strategy?
- Do Canadian taxpayers want to fund an "agriculture policy" or a "rural economic policy"?
- Recognizing that we live in North America, what would be the impact of Canada implementing a Canadian version of the U S Farm Bill?

II - Safety Nets – support for short term and individual income fluctuations

- Comparative research on safety net program models is required to develop a new set of Safety Net programs – which will be focused on short term income fluctuations and not on long term issues?
- Impact of integrating the effect of currency fluctuations into Safety Net coverage?
- Distinguish between "Risk Management" as a business practice, and the APF "Business Risk Management Programs.

III - Income Viability – conditions for long term sector profitability

- Research needed into long term business strategies.
- Need to focus on profitability.
- Impact of currency fluctuation on market options.
- Effect of retail concentration on the rest of the value chain.
- Value Chains – continued need to keep them effective for all links in the chain.
- What is the role of differential bargaining power between the various links of the value chain?
- How can we measure and/or increase the entrepreneurial performance of individual firms in the sector? Is entrepreneurship a capacity that can be developed?
- How do we keep specific regions of Ontario, such as the Greenbelt, as productive economic communities?

IV - Opportunities and impacts of focusing on domestic markets

- What would be the impact on the food industry of a greater focus on the domestic market?
- Does a greater focus on domestic markets threaten our success in export markets?
- Is there a gap between consumer intentions and actual buying decisions with regards to various product attributes? What are the options for the industry to raise consumer preference for Ontario products? What strategies would build brand loyalty for Ontario products?
- What are the underpinnings of a local food system? Are there practical economic models for the development of a local food system provincially or regionally?
- What will be the industry income impact of non-food domestic consumption of agricultural products and byproducts?

3. Report of Action Taken Since Last Strategic Report

2005 Research Day

The Ontario Ministry of Agriculture, Food and Rural Affairs, and the University of Guelph Department of Agricultural Economics and Business held a Research Day on December 16, 2005. A major focus of the day was to highlight research which had resulting in part from the strategic research priorities set by the Agricultural Economics and Business Research and Services Committee. Presentations focused on the economic implications of a wide range of agricultural research topics – trade, environmental stewardship, food safety, land use planning, nutrient management, and agricultural policy issues.

The workshop was attended by 82 people from OMAFRA, the University of Guelph, and the agriculture industry. The full agenda and presentations is available on the on the University of Guelph web site at <http://aeb.uoguelph.ca/events/aebresearchday.html>

The next Agricultural Economics and Business Research Day will be held on Thursday, December 14, 2006.

Committee Meetings:

The Agricultural Economics and Business Research and Services Committee met on January 11, 2006. The committee reviewed the industry/sector scan in order to set the stage of the upcoming strategic research priority setting process. The Research Priorities were not changed at the January 11, 2006 meeting.

The major focus of the January 11, 2006 meeting was to set out the work plan for an upcoming four year strategic priority setting process which will take place during 2006. This is outlined below.

Proposed Process for Establishing Strategic Research Priorities:

The Agricultural Economics and Business Research and Services Committee follows a four year strategic research priority setting cycle, as do the other OASCC Committees. The next four year strategic report is due in January 2007. At the January 11, 2006 Committee meeting, the following work plan was adopted for the 2006-07 Strategic Research Priority Setting process.

January – June 2006	Confirm and expand Committee Membership
April – June 2006	Review other OASCC Committee Reports, agricultural income/agricultural economic papers and Agri-Food policy documents for input
June – August 2006	Develop and test a survey to gather industry input into research priorities
September 2006	Circulate questionnaire to industry stakeholders
October 2006	Develop and circulate a working documents based on industry input received through questionnaire
November 2006	Hold a Committee meeting and open stakeholder forum to Review the working document and seek additional input into research priorities.
November 2006	Circulate revised working draft of Committee Strategic Priority Report to Committee members for comment
December 14, 2006	Present and seek final input on Committee Strategic Priority Report in conjunction with Agricultural Economics and Business Research Day.
January 2007	Finalize Strategic Research Priority Report.

4. Issues

The Agricultural Economics and Business Research and Services Committee identified the following priority research issues for 2002-2006.

- I Competitiveness of the Agri-Food Industry**
- II Business Impacts of Environmental Sustainability and Food Safety/Quality Requirements on the Agri-Food Industry**
- II Risk Management**
- IV Agricultural Business Management Practices**
- V Market Opportunities**
- VI International Trade Opportunities and Threats**
- VII Agri-Food Industry and Rural Countryside Linkages**

On Nov 16, 2004, Committee members reviewed the above seven priority issues to determine if any of them or their sub-issues had changed since the Strategic Report (2002-2006) had been published. The committee fully supports the same priority sequence of Issues and Sub-Issues as written (see Appendix III); however, some areas within those Issues have come to the forefront in the ensuing years.

Jurisdictions

I Competitiveness of the Agri-Food Industry

- If **value-chains** are to become an important characteristic of Ontario's agri-food industry, then a much better understanding of the characteristics of successful value is needed. There is a growing level of discontent with "value-chains" at the farm level. Most "value-chains" in which producers are involved act more like "supply chains". Producers often do not feel they benefit from the sharing of market information, market returns, and market risk that theoretically result from a true value chain. Many "value chains" continue to be characterized by adversarial relationships between links, by non-transparent price discovery systems, and by uneven distribution of market power and benefit.
- The Agri-Food Sector needs to more clearly understand the relationship between "**competitiveness**" and "**viability**". The two terms have often been used interchangeably – but it is becoming clear that they are not the same things. Striving to be competitive, particularly on a world stage, does not appear to guarantee the viability of agri-food sectors or of individual firms. In fact it often just invites trade action from other jurisdictions. Could a more complete understanding of the distinction between competitiveness and viability be used to inform the long-term strategic planning and marketing decisions of individual businesses?
- Ontario agriculture is characterized by a high level of dependence on **offshore labour**. The long-term impact of this factor on our competitiveness, and the inherent policy

risks, are not well understood. We need to better understand how Ontario agriculture's high level of dependence on offshore labour could affect our competitiveness/viability.

- Over the past number of years, public **funding of agricultural research** has become more and more directed towards research projects that can also attract matching contributions from the private sector, in anticipation of commercial benefit. There is a need to assess the macro-economic and socio-economic impact of this shift on the long-term competitiveness/viability of Ontario agriculture. An assessment is needed of the comparative return to the public good of various public investments in agri-food research.

II Business Impacts of Environmental Sustainability and Food Safety/Quality Requirements on the Agri-Food Industry

- Producers are feeling swamped by real and perceived **regulatory burden**. The cumulative affect of new and anticipated regulations is leading to broad socioeconomic impacts on individual businesses, sectors, and rural communities. More analysis is needed on the impact regulatory burden has on decision making at the farm family level, and the impact of these decisions at a broader societal level. Most research to date is only dealing with the production and production cost impacts of change – not the long term results of structural changes in the industry which could be triggered by farm family level decisions in response to regulatory change.
- **Municipalities** are playing an increasing regulatory role in agriculture. A greater understanding is needed of the potential socioeconomic impact of differences in regulations between municipalities within the same province. As municipalities increase their role in agricultural economic development, what would be the provincial impact of municipalities using regulatory differentiation as an agricultural economic development tool?

III Risk Management

- There is a need for a full economic impact analysis of comparative responses to animal and crop **disease outbreaks**. What are the effective role of the various levels of government, what is the role of individual producers, what is the role of producer groups, and what is the role of food processors, in addressing disease outbreaks and their aftermath? How does the structure and capacity of commodity organizations, marketing boards and marketing systems impact the ability of affected sectors to handle the economic impact of disease outbreaks?
- There is a need for the development of best practices for the agriculture sector to better manage and reduce **workplace health and safety risks** at the farm level. This is critical as the average age of producers increases (thereby making them more susceptible to workplace injury or fatality), and as more and more workers in the

agriculture sector have limited ability to fully understand health and safety information in English or French. This includes a need to research production and management practices that will reduce the incidence of occupationally induced diseases of farm workers.

- As the frequency and impact of climate, market and policy risk increase, what is the potential for reducing risk through developing networks or value chains across **multiple geographic regions and jurisdictions**. Canadian producers and farm organizations have traditionally seen producers in the rest of the world as competitors rather than potential partners. Are there practical ways in which Canadian producers can be partners in agricultural businesses across the world as a way of spreading their individual weather, trade and policy risks?
- A full evaluation needs to be done of the effectiveness and gaps of the APF **Business Risk Management Programs** (BRM) in Ontario, to inform policy decisions around fine tuning the current BRM program set beyond March 2008.

IV Agricultural Business Management

- There is a critical need for the agriculture industry to better understand the best practices and the conditions to successfully **attract and retain labour**. As the number of individual farm businesses declines, the number of employees on each farm increases. Some individual farm businesses have become the largest employer in a community. However the ability to attract and retain both skilled and manual labour in agriculture is well behind the demand. There appear to be a number of reasons for this – a general lack of attention on the part of farm managers to developing their labour management skills and practices, low wages often attributed to the economic situation in agriculture, the seasonal nature of much of the manual labour, and the poor public perception of agriculture as a career choice. Significant work is needed to clearly identify the real causes of this problem, and to identify the best practices of producers who are able to attract and retain workers despite these problems.
- There is a need for better model for individual firms to understand and managing the unique risks associated with **contract arrangements** in agriculture. This is especially important in contracts related to “value chains”. Several recent examples have clearly demonstrated the risk to participants of not fully understanding the risks associated with contract agreements in business arrangements.
- The aging farm population and the accelerating tend to fewer and larger farm businesses continues to highlight the need for better practices and information in the area of **farm succession**. The traditional focus in succession planning has been on minimizing the tax cost of transferring assets from one generation to the next. However the growth in the size and capitalization of farm business requires a sharper focus on management succession and new manager development as well. The level of capital required to acquire a farm business is a huge barrier to the entry of young

producers. We need to critically look at different methods and attitudes towards to differentiate between the ownership and the productive control of land and other major capital assets. Finally, we need to look at the trend towards new entrants to small to medium sized agriculture being people with experience and capital from other occupations seeking a second career in farming. What are the opportunities these people may bring to think outside the constraints of agricultural tradition?

V Market Opportunities

- The collapse of commodity markets for bulk agricultural products continues to drive home the need to identify and develop **niche and value-added markets** for our products – both domestically and for export. The market for food in Canada is not growing to any extent. Food industry growth is dependent on capturing a greater “share of the stomach” growth. There appear to be a number of opportunities for the development of industrial and energy products. Work is needed to identify and address any barriers preventing the development of new markets.

VI International Trade Opportunities

- Since the Canada-United States Free Trade Agreement, Canada’s agri-food exports to the United States grew to the point where 90% of Ontario’s exports are to the US. A series of events over the past 3 years have shown very clearly how vulnerable this **reliance on a single trading partner** leaves the industry. Major work is required to increase both our domestic self-reliance, and more importantly our export opportunities to other countries. The country of origin of our agri-food imports is much more diversified than the country of destination of our exports. These need to be brought more in line.
- The Canadian industry has focus on developing export markets in the United States due to obvious economic benefits of geographic proximity and (until recently anyway) a clear policy focus in both countries on expanding bilateral trade. As a result, Canada’s **food product innovation** has been focusing on the US consumer’s view of food. The US market is dominated by the view that food must be uniform, fast and convenient. Food as fuel. By focusing on this market, Canada’s industry may be restricting its ability to develop markets in other parts of the world, where the focus is on uniqueness, choice and taste. Food as an event. A change in this focus will require critical thinking of where Canada wants its markets to be in the long term.

VII Agri-Food Industry and Rural Countryside Linkages

- The impact of the continuing trend towards **fewer but larger individual farm business** on rural communities is not well understood. Larger farms can have positive impacts as well as negative impacts on communities and regional economies. They

can also have tremendous impacts on farm organizations and marketing boards as the number of individual producers declines.

- As fewer and fewer Canadian born workers choose the agri-food industry as a career, there is a need to develop more opportunities for **immigrants** to enter the industry. Best practices and an understanding of the support systems are needed – both for attracting immigrants to the agri-food industry, and for the rural communities who will become their home.
- There needs to be a fuller understanding of how the proposed **Greenbelt** will impact agriculture over the long-term. What are the anticipated impacts and opportunities of changes in land tenure, infrastructure, production patterns and market access. How should these changes influence planning at the municipal and provincial level? Predicting these changes could provide greater opportunities for timely adjustment

5. Recommendations

There are no additional recommendations in this report.

Appendix I: Committee Membership

NAME	ORGANIZATION
Industry Stakeholders	
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Appendix I: Committee Membership

NAME	ORGANIZATION
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Appendix I: Committee Membership

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Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

The Agricultural Economics and Business Research and Services Committee identified the following priority research issues for 2003-2007. The major issues are prioritized with number I being the highest priority; number II the second highest priority etc. Similarly sub issues within each major issue are prioritized with number 1 as the highest priority; number 2 the second highest priority etc.

- I Competitiveness of the Agri-Food Industry**
- II Business Impacts of Environmental Sustainability and Food Safety/Quality Requirements on the Agri-Food Industry**
- II Risk Management**
- IV Agricultural Business Management Practices**
- V Market Opportunities**
- VI International Trade Opportunities and Threats**
- VII Agri-Food Industry and Rural Countryside Linkages**

I. Competitiveness of the Agri-Food Industry

Context:

Increasing competitiveness increases profitability and access to markets. The Ontario agri-food industry competes with global exports and imports on a daily basis. The innovative application of technology, knowledge, and skill to available resources increases profitability by creating added value or reducing costs.

The consolidation trend across the agri-food sector to gain economies of scale derived from newer technologies is one example of increasing competitiveness through reducing costs per unit.

The changes that are happening in our rural communities also impact our ability to compete in the both domestic and export marketplaces.

With the continued movement to a global marketplace it is critical to have accurate economic data and effective benchmarks to enhance Ontario producers' and agri-businesses' ability to compete in that marketplace.

Priorities:

1. Increase the competitiveness of **agri-food value chains** in Ontario.
 - Develop best practice models through comparative research of successful and unsuccessful value chains.
 - Inventory the status of Ontario agri-food value chains, the power of various links within the value chains, and measure the business impact of the value-chains. For

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

example, assess the impact of “branding” production practices thorough the value chain as a market competitiveness tool.

2. Analyze the **cost of production** characteristics of Ontario production, marketing and regulatory systems.
 - Analyze variability within commodities resulting from different marketing strategies and production systems, typology characteristics of managers, farm size and technology adaptation.
 - Analyze the reasons for differences between the top third and bottom third of producers within a commodity in terms of profitability. Create industry benchmarks and best practices from the analysis.
 - Analyze differences in costs and profitability between Ontario and other jurisdictions.
3. Identify opportunities for agriculture sector development through **clustering**
 - Analyze current agriculture industry clusters and assess comparative economic and community advantages and barriers to cluster development in the agri-food sector.
 - Evaluate strategies for developing and managing relationships and technologies within clusters.
4. Research **comparative trade advantages** and their effect on future competitiveness of Ontario with other jurisdictions, including assessing the impact of such characteristics as more open borders, supply management and subsidies as it relates to existing trade agreements. Assess the future impacts of new exporting nations and regions on the future competitiveness of Ontario – e.g. South American field crops.
5. Analyze the comparative advantages of Ontario to focus on **innovation and niche products/value added** as compared to bulk commodity production. Determine how technological advancements, land use patterns, proximity to markets, trade issues, and human resources in Ontario should direct industry development decisions.
6. Identify and analyze improved systems for market price determination, market information sharing, and **price discovery/transparency mechanisms** within agricultural markets.
 - Assess the impact of value chains on markets and price discovery mechanisms.
 - Compare contract design to allow for enhanced market transparency.
7. Study the **role of municipalities** in industry competitiveness. Measure the impacts of land use planning, environmental and land protection programs, property tax systems, and incentive measures such as tax incentive zones, on the ability of the agri-food industry to remain competitive.

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

8. Assess the **impact of technology** on the competitiveness and innovation of the agri-food industry.
 - Analyze farms and agri-businesses in terms of size, technology addition, needs and marketing methods.
 - Analyze strategies for the development and diffusion of new technologies in the sector.
 - Define the impact of new biotechnology products on the Ontario agri-food industry.
 - Analyze the impact of technology on farm size, management, and decision making.
9. Develop strategies and programs for private and public organizations to improve the **innovation capabilities** of the agri-food and ag-biotech sectors. In particular analyze how new technology and management systems are created and the role of public policy in facilitating innovation.
10. Analyze and assess mechanisms to increase options for **access to capital** in the agri-food sector, including equity financing, land tenure systems and community capital.

II **Business Impacts of Environmental Sustainability and Food Safety/Quality Requirements on the Agri-Food Industry**

Context:

The goal of an environmentally sustainable agri-food industry in Ontario is driven by: the stewardship ethic of the industry to maintain and enhance the resource base for future use, groundwater safety concerns by rural residents, concerns around air quality and climate change, and consumer demand for both “green” products and product traceability. Producing and processing safe quality foods in an environmentally sustainable way brings both business costs and opportunities to the industry.

Priorities:

1. Evaluate the **economic impacts** of international agreements, provincial legislation and municipal bylaws relating to environmental and food safety and quality issues on agriculture. Evaluate potential treats and opportunities to the agri-food industry associated with restricting greenhouse gas emissions, opportunities for carbon sequestering and possible green taxes.
2. Identify **best management practices** for environmental and food safety/quality records and processes. Determine the cost/benefits of enhanced record keeping and management practices to the individual business and the value chain, including research into mechanisms to assess who bears any net costs of compliance.

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

3. Assess alternate **approaches to food safety/quality management** and the impacts of food safety and quality problems on firms and sub-sectors.

III. Risk Management

Context:

Managing risk to minimize loss exposure while maintaining profit opportunities is an age old and ongoing business challenge. In addition to national efforts to improve publicly supported safety nets under the current Agricultural Policy Framework discussions; producers and agri-food businesses need information and tools for to help them more effectively manage their own financial and business risks within their own business. As well as traditional financial and production risks, businesses now need to understand and manage such things as environmental, food safety and biosecurity risks.

Priorities:

1. Identify needs and develop creative tools to help farmers and business advisors integrate traditional price risk and market risk management techniques with financial and production **risk management strategies**. Identify opportunities of non-traditional risk management systems. For example, strategic alliances that spread risk, or risk management partnerships.
2. Identify tools and strategies to manage **business interruption** risk. For example private or public business interruption insurance to cover such interruptions as farm family tragedy, biosecurity, and disease outbreaks.
3. Develop **management tools** throughout the value chain to reduce food safety, health, bio-security and environmental risks.
4. Measure the **impact of the current and potential safety net programs** including program costs versus benefit, integration among programs and the impact on production and marketing decisions. Assess the effectiveness of safety net programs in dealing with disasters. Assess the integration and comparability of participation in multiple safety net programs.

IV Agricultural Business Management Practices

Context:

Continuous improvement in farm business management is needed to meet the opportunities and challenges provided by changes in government policies, technology, environmental and food safety concerns, labour issues, industry consolidation, value added and I.P market development, globally influenced markets, business growth and ownership transfer.

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

Priorities:

1. Develop best management practices, tools and strategies for retaining and attracting skilled and manual **labour** in the agriculture industry.
 - How do labour management practices and farm type/size impact labour attraction and retention?
 - What practices would assist agri-food business managers to more effectively compete for workers with other employers?
 - Research mechanisms for the determination of comparative wage rates.
 - Determine how public policy and labour legislation impact skilled and manual labour availability in agriculture, including policies associated with demographics and immigration.
2. Develop and research tools and processes for successful **ownership and management succession** of farm family businesses. Identify gaps and best management practices.
3. Assess the current and potential **integration of on-farm information** systems being used for business management, environmental and food safety tracking.
 - How can information best be integrated into management decision making?
 - Determine what lessons can be learned from other industries.
 - What are the economic benefits and costs to individual businesses of information collection and management? Assess the impact of regulatory and tax information requirements on business management. For example – what has been the impact of cash accounting for tax purposes on business management in agriculture?
4. Research business management decision of farm managers at various stages of their careers to determine the influence stage in **business lifecycle** (entry, expansion, niche maintenance, downsizing, exit) has on business decision making. Enhance information on business lifecycle and business type currently available within the Agriculture and Agri-Food Canada Farm Typology model.

V Market Opportunities

Context:

Ontario has developed strong marketing systems to meet the needs of producers and consumers. However every agricultural sector is faced with constantly changing challenges when marketing its products.

Niche marketing and the demand for new products, including such things as identity preserved products, pose challenges for buyers and sellers in terms of meeting market demands.

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

Producers' need to consider of their output as products rather than commodities has led to new challenges in the agri-food marketplace. The consolidation in wholesale and retail sectors has meant that there are fewer buyers than ever striving to meet profit targets and the ability to market effectively in that environment is challenged.

Priorities:

1. Analyze market responsiveness to **changing consumer** behavior and demographics. Analyze consumer responsiveness to specific quality attributes such as health, environmental, food safety and food quality. Investigate ways to ensure that producers capture a larger share of Canadian consumer spending on food.
2. Measure the **benefits through the value chain** of developing market opportunities (such as value –added, alternative crops, biofuels, nutraceuticals, niche marketing and identify preservation.
 - Assess who captures the benefits of new products and processes across the value chain. .
 - Analyze alternative strategies for developing value chains, for maintaining those chains, and for capturing and distributing the economic benefits.
3. Measure the impact of potential changes to **regulated marketing** for Ontario commodities.
4. Measure the impacts of increased **concentration in the agri-food sector** on Ontario's farm businesses and broader agri-food sector.
5. Understand and provide actions to capture opportunities resulting from **differences in consumer preferences between North American and Europe**.

VI International Trade Opportunities and Threats

Context:

The ongoing move to a more global marketplace and the continued development of trade partnerships or alliances will create challenges and opportunities for Ontario agriculture. Each round of the WTO and the creation and update of trading alliances such as North American Free Trade Agreement brings new changes. As the US remains Ontario's largest export market, the US Farm Bill and US Trade actions have a major impact on trade. Issues such as Bio-safety protocols and perceived trade barriers as the result of crop or livestock disease outbreaks could have serious impact on our agri-food industry because of our dependence on trade with other countries, especially the United States.

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

Priorities:

1. Identify industry/commodity wide **trade opportunities** that are available to producers and agri-business. For example – identify the attributes that foreign consumer's value in a Canada Brand or Ontario Brand label.
2. Examine the impact of trade agreements on Ontario, and identify **Ontario specific** trade issues that might be different from the national interest. Analyze the world and domestic outlook after the next round of negotiations in order to understand new barriers, new opportunities, industry conditions that will change.
3. Examine the impacts of and the potential ways of addressing **bio-security** concerns on trade. Assess the cost of addressing and preventing these concerns vs. the cost of dealing with issues after the fact.
4. Assess **trade distorting** impacts of foreign government programs (e.g. EU multi-functionality support, US country of origin labeling, and national security boarder controls).

VII Agri-Food Industry and Rural Countryside Linkages

Context:

Direct agriculture and related industry jobs continue to decline in rural Ontario. As it does, the influence of agriculture as a direct engine of economic growth will decline. As fewer people in rural Ontario actively derive their livelihood from the industry, agriculture is becoming valued more as an amenity to rural communities than as an economic force. This often puts the commercial interests of the industry at odds with the very amenity issues that other rural stakeholders value.

Priorities:

1. Identify and quantify the positive and negative impacts of agri-food **clusters** on rural communities.
2. Analyze ways to keep more **jobs** directly created by the agri-food industry in rural Ontario
3. Assess how to best enhance agricultural **value-added opportunities** in rural Ontario as an alternative to large scale least cost production – example – role of agri-tourism
4. Analyze the potential impacts and opportunities for **multi-functional support** to agriculture in Ontario. Are there effective mechanisms to compensate farm business owners for maintaining or enhancing the visual and aesthetic value of their operations?

Appendix II: 2002-2006 Strategic Report Issues and Sub Issues

5. Assess the degree of **reliance of agriculture on a strong rural community** – e.g. access to off-farm employment, to local markets, to agricultural labour force to social services and amenities for farmers and farm workers.
6. Assess the **value of the agriculture industry to rural economic opportunities**, - example tourism, rural residences, etc. Quantify the interaction of agriculture with the boarder rural community.

APPENDIX III: ECONOMIC RESEARCH CONDUCTED BY THE RESOURCE MANAGEMENT AND ENVIRONMENT PROGRAM 03-07

PROJ. #	PROJECT TITLE	LEAD RESEARCHER	START/ END DATE	PROJECT SUMMARY
25936	Agricultural Competitiveness and Policy Analysis.	George Brinkman	MAY-01-2003 APR-30-2007	1. To provide an integrated assessment of the competitiveness, viability, and sustainability of the Ontario and Canadian agri-food sector. 2. To identify the implications of major changes in production, technology, emerging competitors, domestic and international policy, trade agreements, and consumer demand considerations on the Ontario and Canadian agri-food sectors.
25951	Ontario farmland conservation research program: policy options for conserving farmland and rural communities.	Stewart Hilts and Wayne Caldwell	MAY-01-2003 APR-30-2005	1. To identify, recommend and implement strategies to assist with the protection of Ontario's agricultural resource for agricultural production; 2. To help the rural and agricultural community to understand the broader patterns of urban and rural development occurring in Ontario; 3. To make connections to Ontario's "Smart Growth" initiative; 4. To demonstrate the connections between the protection of farmland, a healthy rural environment, and \ healthy rural communities
25976	Producer competitiveness and independence in a consolidating food system?	Kenneth Mcewan	MAY-01-2003 APR-30-2007	1. Bench mark farm level cost of production and efficiency for swine and cash crop sectors. Also a project will be completed comparing Ontario and U.S. farm input prices. 2. Catalogue agricultural sector concentration in Ontario for the swine, cash crop and beef industries and compare to those found in the US. 3. Search for alternative business models/strategies between producers, packers and retailers (by looking for alternative models in the US). 4. Identify critical success factors in harnessing independent producers with similar production profiles to fit specific market needs (e.g. food safety).

APPENDIX III: ECONOMIC RESEARCH CONDUCTED BY THE RESOURCE MANAGEMENT AND ENVIRONMENT PROGRAM 03-07

PROJ. #	PROJECT TITLE	LEAD RESEARCHER	START/ END DATE	PROJECT SUMMARY
25937	The impact of agri-food policies and trade reforms on Canada	Karl Meilke	MAY-01-2003 APR-30-2007	1. To analyze the effects on trade of tariff and nontariff barriers, as well as administered protection, biotechnology, technical barriers to trade, biosecurity and intellectual property within a multilateral framework; 2. To address the major trade issues within the NAFTA countries, particularly those that have caused or have the potential to cause trade disputes; 3. To analyze the effects of Canada's domestic policy framework and the policies of Canada's major competitors on the Ontario agrifood sector.; 4. To analyze the potential effects of trade rules and regulations on Ontario's supply managed industries where trade liberalization may represent the most serious threat to the established policy environment.
25974	Conflict resolution in rural Ontario: Responding to the intensification of agriculture	Wayne Caldwell	MAY-01-2003 APR-30-2005	1. To identify "best practices" for local conflict resolution by documenting and analyzing the success of current initiatives; 2. To document and analyze the experience of the farm community with the Ontario Municipal Board and the Normal Farm Practices Protection Board; 3. To evaluate the opportunity for local committees to assist in mediating disputes as envisioned under Bill 81 - The Nutrient Management Act. Additional applications include management issues related to rural water quantity and distribution; 4. To develop a manual and related training materials to assist local initiatives to establish committees to mediate agricultural disputes; 5. To deliver a number of workshops designed to build capacity within local communities to more adequately address conflict.

APPENDIX III: ECONOMIC RESEARCH CONDUCTED BY THE RESOURCE MANAGEMENT AND ENVIRONMENT PROGRAM 03-07

PROJ. #	PROJECT TITLE	LEAD RESEARCHER	START/ END DATE	PROJECT SUMMARY
26023	Economic analysis of conservation cover programs and best management practices	Alphons Weersink	MAY-01-2003 APR-30-2007	1. estimate net farm returns for alternative best management practices (BMPs), such as tillage practices, crop rotation choices, and fertility testing; 2. assess how the returns for alternative best management practices vary by spatial location; 3. determine the tradeoffs between environmental quality and farm returns for a given set of best management practices within a given location; 4. develop an integrated modeling framework to combine the hydrological model and an economic optimization model of producer decisions for the chosen watershed using GIS;
26026	Agri-food research and innovation strategy	George Brinkman	MAY-01-2003 APR-30-2007	1. To identify strategic components of agricultural research and innovation, including commodity mix, public vs private initiatives, regional vs national focus, and priority selection of technologies to promote for innovation; 2. To provide measures of returns to existing agricultural research, prospective technologies and opportunities for innovation; 3. To provide benchmarking assessments of resources committed to agricultural research and innovation; 4. To provide measures of Canada's performance in the agri-food economy.
26128	Corn and Soybean Price Forecasting Models for Ontario	John Cranfield	APR-30-2006	1. Develop economic models of the international soybean and corn complexes and relate these to Ontario; 2. Investigate how future trade negotiation outcomes might affect the price of corn and soybeans in Ontario; 3. Assess the impact of future trade negotiations on the economic well being of Ontario corn and soybean producers; 4. Assess how future trade negotiation outcomes might affect risk management strategies in the Ontario corn and soybeans sectors; 5. Develop price forecast models for Ontario corn and soybean markets in future time periods.

APPENDIX III: ECONOMIC RESEARCH CONDUCTED BY THE RESOURCE MANAGEMENT AND ENVIRONMENT PROGRAM 03-07

PROJ. #	PROJECT TITLE	LEAD RESEARCHER	START/ END DATE	PROJECT SUMMARY
25947	Innovation and technology transfer in the Ontario Agri-Food and Biotechnology sectors	David Sparling	MAY-01-2003 APR-30-2006	1. To assess the relationship between innovation and firm performance. The first part of this analysis will consist initially of an in-depth analysis of the data from Statistics Canada surveys on innovation and technology adoption; 2. To use case studies of innovation in firms to assess the factors which both drive and facilitate innovation and the ability of firms to capture the value of innovative activities, particularly related to commercialising new technologies and products; 3. To analyze the priorities and decisions, outcomes, impact of government funding programs designed to promote innovation in the agri-food sector.
25995	The impact of US Country-of Origin Labelling Requirements on the Red-Meat Sectors	John Cranfield	MAY-01-2003 APR-30-2005	1. Analyze the relationship, at the retail level, between U.S. born, raised and processed red meats and red meats not of U.S. origin; 2. Analyze the impact of product segregation on the structure of the red-meat supply channel in North America and draw implications for Ontario; 3. Assess the effect of country-of-origin labelling on livestock and red meat prices, and resulting impact on economic welfare measures for producers, processors and consumers; 4. Investigate the role of export market promotion as a means of developing the market for red-meat products originating from Ontario and Canada.

APPENDIX IV: ECONOMIC RESEARCH CONDUCTED BY THE NEW DIRECTIONS RESEARCH PROGRAMS 2003-2005*

PROJ.#	PROJECT TITLE	LEAD RESEARCHER	START/ END DATE	EXPECTED BENEFITS
SR9146	Origin, abundance and dispersal of the multicoloured Asian lady beetle, <i>Harmonia axyridis</i> , in relation to Ontario vineyards	Dr. Mark Sears, UofG	May 2004-May 2006	The information from this research will provide the framework to understand and manage the relationship between aphid populations in crops such as soybeans and other habitats to infestations of lady beetles in Niagara and Essex counties. This study will help to identify critical spatial and temporal control points to reduce the populations of lady beetles in vineyards and subsequent impact on wine quality.
SR9155	Allocating Quality Water in Ontario as a Private, Environmental and Public Good	A. Weersink, U of Guelph		This proposal will provide information on policy adaptations that can be made in Ontario to adequately provide water for urban demands and agricultural use, while maintaining environmental sustainability of our water sources for recreation, habitat and future generations. This research will evaluate the consequences to the agri-food sector of several different policy options that Ontario may use to improve both water allocation and water quality. The agri-food sector will gain knowledge and understanding needed to contribute to sound, future water policy development.
SR9139	The Aging of Ontario's Rural Entrepreneurs: Succession Planning Practices and Policy Implementation	Carolyn Pletsch - OATI Learning Group	Completed in May 2004	For Ontario, income from all sources related to age showed that Rural Self Employed people 35-55 yrs old get the most income from self-employment activity, less income came from wages and salaries, and government transfers There is a clear relationship between average income and education. Those with a university degree have a higher income than all other categories Qualities, characteristics, and skills desirable in successors included business skills, financial stability, desire, respect, the ability to communicate, and having similar goals. Some respondents indicated that they were concerned with finding these qualities in a successor given the current situation in many rural communities.
SR9140	Economic Assessment of Future Labour Demand Needs in the Ontario Agri-Food Sector	Dr. J. Cranfield, Agricultural Economics & Business, UofG	01-Jul-03 / 30-Jun-05	By identifying key labour issues, quantifying their impact on labour demand, measuring the economic costs and benefits associated with changes in these factors and projecting future labour needs, the proposed research contributes to policy development which fosters a sustainable and competitive agri-food industry.

*Projects for New Directions 2005 are not listed because they were still in the review process at the time of the writing of this report ;