Poised for the Future

By: Rob Gordon, Dean, Ontario Agricultural College

The Ontario Agricultural College (OAC) has a long and successful history of supporting our essential agriculture and food sectors. OAC also boasts a globally recognized reputation for excellence in research, teaching and outreach. As both an employee and alumnus of OAC, I’m proud of the important leadership that our college provides and the high quality of our academic programs.

Not surprisingly, the 2015 U.S. News & World Report in assessing the “Best Global Universities,” placed our institution 12th globally, fifth in North America and first in Canada in agricultural sciences. This ranking was based on reputation and research in food science, nutrition, dairy science, horticulture and agronomy. Our impact is showcased in these rankings, and I credit our successes to the quality and exceptional efforts of our faculty, staff and students. Their commitment, passion and dedication to identifying new innovations and discoveries to support the growth and significance of our agriculture and food sectors are second to none.

All of that notwithstanding, OAC has and will continue to be faced with many challenges and at times will need to make difficult decisions. But rest assured, our primary purpose will continue to involve supporting the development of highly qualified personnel and being the catalysts for innovations and advancements.

Looking back over the past five years, we have had to re-position OAC for the future and have achieved a great number of successes, including:

• Increased research funding by nearly 20% and currently access more than $56 million in research funding annually.
• Increased enrollments in our undergraduate majors by nearly 30% and graduate student enrollment by 15%.
• In 2012, the University of Guelph was identified as Canada’s most inventive university based on the number of intellectual property disclosures per faculty member. OAC accounts for 92% of these disclosures.
• Increased annual fundraising by more than 500% (at present $10 million annually), which represents more than 30% of the university’s total fundraising. This includes securing support for externally funded Research Chairs and Professorships representing $20 million in future faculty salaries.
• Restructured the core curriculum of many academic programs including our undergraduate and associate diploma programs. In doing so we have improved program quality, enhanced student engagement and experiential learning, and supported greater job readiness in our graduates.

I’m truly proud of our collective efforts and excellence over the past 140 years. But I assure you that we won’t rest on these laurels. We will continue to work extremely hard to further enhance the impact of our programs and look forward to even higher global rankings in years to come.
Foot-and-Mouth Disease Outbreak Impact

Research by: Kenneth Poon, Associate Director, Institute for the Advanced Study of Food and Agricultural Policy, and Tor Tolhurst, Research Associate, FARE

In the context of Canada’s recent expansion of agricultural trade, biosecurity has become an area of focus for the Canadian agricultural sector. Animal disease outbreaks, and the efforts to control their spread within and across trade borders, can result in devastating impacts on the national economy.

In particular, Foot-and-Mouth Disease (FMD) is one such threat for the Canadian economy due to its virulence – the disease affects all cloven-hoofed animals, can lead to severe productivity losses, and spreads very quickly via multiple channels, making it very difficult to control. In 2001, a FMD outbreak in Britain was estimated to have generated a loss of £3.1 billion for the UK economy, with £355 million of lost value directly attributed to the agricultural sector.

Once an FMD outbreak has been confirmed, two control measures are immediately enacted by the Canadian Food Inspection Agency (CFIA): 1) culling of infected animals and those at high risk of infection; and 2) cessation of the movement of livestock and animal products between international and interprovincial borders. FMD-related border closures are recognized by the World Organization for Animal Health (OIE) and the World Trade Organization (WTO) – only countries identified as FMD-free by the OIE can export livestock and animal products.

As an industry dependent on export markets, FMD outbreak poses a significant threat to Canadian livestock sectors. Specific to the Ontario beef sector, impacts of the disease can ripple through all levels of the beef supply chain because of the reliance on interprovincial movement of animals. However, the potential costs of FMD outbreak in Ontario have largely been unexamined.

In collaboration with the Beef Farmers of Ontario (BFO), the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and the Institute for the Advanced Study of Food and Agricultural Policy, researchers at FARE have built a partial equilibrium model of the Ontario beef sector, using data provided by CanFax, Statistics Canada, and OMAFRA. The supply chain is separated into six components: cow-calf, background, finishing, non-fed/cull, processing, and retail. Supply, demand, cross-price correlation equations, and movement of animals and products across provincial and international borders are modeled for each stage.

Using the model, we examine two disease outbreak scenarios – an outbreak in Western Canada (no livestock flow into the Ontario supply chain from western provinces) and one in Southern Ontario. We found that regardless of whether the outbreak happens inside or outside Ontario, it will create a large negative economic impact along the entire Ontario beef supply chain. In both scenarios, the demand lost from export markets far outweighs the slight rise in livestock prices, and consumers see no changes as U.S. beef imports rise in response to the loss of domestic supply. We estimate an economic loss of $275 million for the Ontario beef sector in the first year of an outbreak in Western Canada. In the event of an Ontario outbreak, the loss is tripled to $864 million in the first year. Restriction on cross-border movement of livestock and beef products is the main contributor to the estimated loss.

Partial equilibrium models are important to policy makers in times of crisis – understanding the magnitude of disease impacts and knowing how the impact will be distributed amongst players can help government agencies allocate funds to manage outbreak scenarios more efficiently and in a more timely manner.

“We found that regardless of whether the outbreak happens inside or outside Ontario, it will create a large negative economic impact along the entire Ontario beef supply chain.”
We hear a lot about the growing local food movement, which is further supported by the Ontario Local Food Act (2013). Many resources are available to help farmers improve the performance of value added and farm direct marketing. And some operations are very successful at connecting with an evermore interested and sophisticated customer base via online and social media. But how much value adding and direct marketing to consumers is actually happening out there? Official statistics simply do not exist. And while numbers for farmers’ markets – estimates of the number of vendors and their sales – are available to some extent, all other direct marketing channels lack data. This FARE Share contribution reports on research that aims to close this data gap.

With support from the federally funded (AAFC) Research Network on the Structure and Performance of Agriculture and Agri-products Industries, Andreas Boecker and Eric Micheels conducted a survey about marketing and record keeping practices, as well as innovation activities among Ontario farmers. Administered online by IPSOS Agriculture & Animal Health in spring 2013, the survey yielded 384 usable questionnaires from operations with annual gross farm receipts greater than $10,000, a total of about 12,400 operations (± 1,000 to account for sampling error at the 95% confidence level) selling directly to consumers province-wide can be inferred from the sample findings. As can be seen from Table 1, these operations are, on average, considerably smaller than their non-direct marketing counterparts in the sample but are similar in size distribution to the 2011 census figures.

How diverse are their marketing channels?

At the level of the entire operation, the survey distinguished between six marketing channels:

- Wholesale or commodity marketing
- Direct to consumers
- Local, independent intermediaries, e.g. butchers, grocers, restaurants
- Agri-tourism, including on-farm events
- Goods and services marketed to other farms, e.g. custom work
- Non-farm business

Only 10% of the farms that market directly to consumers rely entirely on this particular channel, while 36% use two in total, 34% three, 15% four and 4% even five channels. The marketing channels of this group are significantly more diversified than those of the non-direct marketing group where no more than three channels were utilized by one farm and 95% of the farms utilize one or two channels.

How many farms are engaged in farm direct marketing?

In the weighted sample, 124 of the 384 operations (32%) were marketing directly to consumers. This figure is surprisingly high but it includes a fairly large share of farms that sell only a small share of their output directly to consumers or do so informally without a formal outlet (e.g., to family and friends, at local events, etc.). Since the sample size represents about 1% of all operations in Ontario with gross farm receipts greater than $10,000, a total of about 12,400 operations (± 1,000 to account for sampling error at the 95% confidence level) selling directly to consumers province-wide can be inferred from the sample findings. As can be seen from Table 1, these operations are, on average, considerably smaller than their non-direct marketing counterparts in the sample but are similar in size distribution to the 2011 census figures.

![Table 1: Comparison of gross farm receipts of 2011 census with sample](image)

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<table>
<thead>
<tr>
<th>Gross Farm Receipts</th>
<th>2011 Census</th>
<th>Sample: Direct</th>
<th>Sample: Non-Direct</th>
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<tr>
<td>$10K - $25K</td>
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**Status of Farm Direct Marketing**

Research by: Andreas Boecker, Associate Professor, FARE, and Eric Micheels, University of Saskatchewan

Cathy Bartolic, Executive Director of Ontario Farm Fresh Marketing Association (OFFMA) is both surprised and encouraged by the results of the FARE farm direct marketing study. Specifically, the number of farms selling direct to consumers was significantly higher than she expected. While the researchers found that approximately 12,400 Ontario farms are selling directly to consumers, her estimates are closer to 1,200.

“IThink it all boils down to the definition of farm direct marketing,” says Cathy, who serves 350 volunteer members at OFFMA. With the growing popularity of local food, membership at the not-for-profit organization nearly doubled between 2009 and 2012. Members consist of dedicated Ontario farmers with an enthusiastic interest in promoting and marketing the direct farm sales industry, which includes on-farm markets, agri-tainment, Community Supported Agriculture (CSAs) and pick your own operations.

In the FARE study, the definition of farm direct marketing was anyone with gross farm sales of more than $10,000 per year who indicated that they sold farm fresh products or processed products directly to consumers. In this definition, a farmer could sell their neighbour a turkey or a dozen cobs of corn and qualify as a farm direct marketer.

The bottom line is that more and more farmers are looking at direct farm marketing as a viable alternative to growing and selling food on a wholesale basis.

“We welcome the information that the study provides,” says Cathy. “It is exciting news for our industry.”
Economic literature on the theory of the firm is dominated by the Walrasian approach, which views firms as optimizing organizations on the one hand and the neo-institutional approach, which views firms as means of economizing on transaction costs on the other. A third approach involves viewing firms as necessary collaborations between entrepreneurs and owners of capital. Ludwig von Mises’ conceptualization of the entrepreneur-promoter is developed and applied in particular detail in Charles Koch’s The Science of Success. He describes Market Based-Management® (MBM) as a “holistic approach to management that integrates theory and practice, and prepares organizations to deal successfully with the challenges of growth and change.”

Koch acknowledges the critical role that the ideas of Mises and Hayek played in the development of the theoretical aspects of this integration. The practice part comes from the adaptive experimental application of this theory to Koch Industries. The characterization of the firm presented by Koch emphasizes the integration of the function and organization of the firm with the price system.

Firms that achieve and maintain this integration thrive; those that do not, eventually disappear. Hayekian experimentation is a critical element of this integration. It is undertaken with a clear expectation that some experiments will fail. Failure is not the goal, and firms must have exit strategies when failures occur, but management that strives to eliminate failures undermines the viability of the firm in the longer term.

Koch’s exposition of the entrepreneur-promoter emphasizes attributes that have attracted limited attention in business literature and have been ignored, generally, in economics literature. For example, he maintains that the realization of entrepreneurial imagination requires the development of trust within the organization. He also proposes that a low rate of time preference is necessary for the firm to be effective. MBM rests on an Austrian understanding of the subjective theory of value, the principle of comparative advantage, the importance of spontaneous order, marginal costs and benefits, and knowledge of the particulars of time and place. This is combined with principled leadership of the organization, which is the basis for the development of trust among owners of goods of higher order cooperating within the firm. The entrepreneur-promoter, as might be expected, is responsible for shaping the vision and culture of the organization. But, in addition to this function, the entrepreneur-promoter also contributes to organizational design, in the form of shaping processes for the delegation of authority and property rights, the development of systems of accountability, and establishment of incentives within the firm. Ultimately, the goal of organizational design is “to provide incentives that harmonize the interests of the individual with those of the company.”

A theory of the firm that is consistent with Hayek’s theory of the price system and his characterization of the nature of competition contrasts both with the Walrasian view of the firm as an optimizing organization and with the neo-institutional view of firms as “lumps of butter suspended in a pail of buttermilk,” meaning that firms are organizations within which the operation of the price system is suspended in the interest of economizing on transaction costs (Coase, 1937).

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Article excerpted from G. Fox (Forthcoming) “Is the Theory of the Firm a Missing Chapter in Austrian Economics?” International Journal of Markets and Prices