ASSESSMENT OF THE OPPORTUNITIES FOR MARKETING NON-GM PEI AGRICULTURAL PRODUCTS

Final Report

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EXECUTIVE SUMMARY

The federal-provincial Agricultural Policy Framework (APF) was introduced with the purpose to take agriculture off the "victim agenda" and produce farm products according to consumer preferences. In other words, farm products would be differentiated according to end use. One differentiation strategy that has received much attention is the idea of establishing Genetically Modified free (GM-free) production zones.

This report examines whether GM-free production and establishing Prince Edward Island (PEI) as a designated GM-free zone would be a differentiating factor that could improve the marketing of PEI products, and determine if it would result in a benefit to both organic and conventional PEI producers. To achieve this required gaining a detailed understanding of the potential national and international opportunities for marketing non-GM products.

The specific objectives of this project were:

To provide an assessment of the global market for non-GM commodities and food products.
- Markets assessed included Europe, United States, Canada and Japan.

To prioritize key non-GM markets that PEI could capture.
- Key markets reviewed included soybeans, canola, hay, potatoes, beef, pork, soybeans, grains, corn and berries.

To develop an understanding of preferred market penetration strategies that could be used by PEI producers.

To provide an evaluation of the potential success of establishing a GM-free production zone.

To meet the objectives outlined above, the project was divided into four phases of work:

Phase I	Market Structure and Demand
Phase II	Develop an Understanding of Penetration Strategies
Phase III	Specific Market Opportunities and Market Prioritization
Phase IV	Conclusions and Recommendations for Prince Edward Island

Part I involved investigation and information collection via a literature review and industry interviews to determine the size and scope of the international non-GM commodity and food market, including future trends. Part II provides an overview of penetration strategies and how they can be used for PEI. Part III prioritized key markets for PEI and summarized the findings from Part I and II. Phase IV concluded with an evaluation of the potential success of creating a GM-free production zone in PEI.

The following results emerged.

Conclusions from the Literature

A review of the available literature indicated that it is difficult to empirically estimate the market demand for non-GM products, but some inferences can be made. The literature indicated that certain countries value non-GM food products (Europe and Japan in particular) and are willing to pay a premium for them. It shows, however, that consumers in the United States are relatively indifferent towards non-GM foods, and in many cases prefer products that indicate they are locally grown (as is the case with the

Colorado-grown potatoes). The literature also indicated that there is a varying degree of awareness regarding GM foods, and that the more aware consumers are of GM foods (particularly through the influence of consumer awareness and lobby groups), the more likely they are willing to pay a premium for non-GM food.

Similarly, the results from country surveys and polls regarding consumer's perceptions towards GM foods follow the same trends as the willingness to pay studies. In Japan and the European Union, consumers tend to favour non-GM foods; however, Europeans have generally become more accepting of GM foods when the results from previous Eurobarometer polls are compared.

An overview of the magnitude of GM-free production zones worldwide indicated that there are increasingly more regions declaring themselves as GM free. And while legislation that prohibits the importation of genetically modified foods is declining, there has been the introduction of legislation that makes producers of GM crops liable for any contamination of non-GM crops, should it occur.

Conclusions from the Case Studies
The major finding from the case studies was that if soybeans from the US mid-west, potatoes from the mid-west and veal from the Netherlands can be differentiated, then it should be obvious that any product from Prince Edward Island can be differentiated. With that noted, the following are the particular lessons from the three case studies and market penetration strategy literature reviewed:

1. It takes a long-term mind-set to develop a unique product and market.
2. Service and relationships are the keys to success.
3. What the consumer finds as valuable is the most important aspect of how to differentiate a product.
4. No differentiated relationship will work without trust.
5. Brand the product and make the brand unique and at the forefront.
6. Price the product uniquely for each customer based on service and the relationship.
7. PEI can begin with one branded product and expand into others as stakeholders (growers, customers, and others) become more interested in the brand.

Study Conclusions
Our research found that the marketing of GM-free products and the establishment of a GM-free zone are not mutually exclusive issues. In fact, they are two separate (albeit intertwined) issues. Respondents indicated that, in their opinion, non-GM and GM crops can be grown in the same general area. This belief was supported by published literature (for example: Huffman, 2004; PG Economics, 2003; **Hucl & Matus-Cádiz**, 2001; Agcare, 2004). The success of producing GM, non-GM and organic crops in the same area relies almost entirely on producers abiding by protocols that relate to the segmentation of specific crops. The most important criteria for establishing the long-term profitable marketing of non-GM crops is said to be the existence of production protocols, including isolation strips, and the establishment of effective post harvest identity preservation systems to ensure their integrity.

Throughout the research it became clear that basing the strategic intent of PEI's agricultural and agri-food industry on the production of GM-free crops alone would not likely provide producers with the same benefits as producing differentiated value-added

products to discerning and health conscious consumers on a supplier/buyer basis. Particularly as crops available as GM varieties inhabit only a segment of the overall crops grown in PEI. Taking a broad-brush approach to the issue of GM versus non-GM would therefore not benefit producers to the same extent as encouraging the establishment of strategic marketing initiatives. There are four main reasons for this.

First, GM crops inhabit only a segment of the overall range of crops grown in PEI, not all producers would benefit to the same extent from the establishment of a GM-free zone. Second, profiting from the successful marketing of GM-free crops will rely on the same critical success factors as the marketing of all agri-food products. Third, history proves that not all producers are prepared to collaborate sufficiently to abide by strict production protocols required to support effective marketing initiatives. Finally, economic studies have shown that GM, non-GM and organic crops have been successfully grown in the same area, and that the greatest threat of contamination is likely to occur during post harvest handling and processing operations. For these reasons, the marketing of crops and agri-food products whose only differentiating factor is that they are produced in a GM-free zone is not considered a viable option for increasing the profitability of PEI's entire agricultural and agri-food industry.

While opportunities clearly exist for PEI's agri-food industry to prosper and secure valuable markets, the findings showed that, across-the-board, producers would not gain considerably from the establishment of a GM-free zone. The research identified that this is predominantly because most consumers are not likely to perceive sufficient added value to pay additional premiums for purchasing products sourced from a GM-free zone. They expect to be assured that GM-free products do not contain GM material, regardless of whether or not they were produced in a guaranteed GM-free region. The research results also showed that the overall demand for products whose only differing attribute is non-GM is likely to diminish significantly in most markets over the next 5-10 years, which provided further support against the investment of resources to introduce legislation preventing the production of all GM products on the island.

Furthermore, lessons learnt from regions that have sort to establish GM-free production zones illustrate that the independent nature of producers can challenge a system. This implies that the effectiveness of a GM-free zone would only be ensured through active policing in order to discourage the dissention of producers. Significant resources would be required to monitor and enforce the zone. With few added returns from the establishment of a GM-free zone, the cost of implementing and enforcing such a system would likely be far greater than the potential returns.
If production-related legislation was enacted, its objective should be to create the greatest possible harmony amongst the producers of organic, non-GM and GM crops. Doing otherwise would likely create resentment between the different interest groups and stakeholders. It would be seen by many of the industry stakeholders as a win-lose scenario.

Market Opportunities
Marketing products in line with the credence and brand recognition factors that are of increasing importance to the discerning consumer is where interested PEI producers should target their operations. While PEI has limited physical and financial resources, taking full advantage of these opportunities will require industry and government to invest considerable resources into developing the management capabilities required to produce and market agri-food products in accordance with market requirements. It is

suggested that this include a process of raising producers' awareness of the need to develop closer collaborative links with their customers and the final market. Such initiatives will lead to a greater number of PEI producers that are able to leverage the region's unique credence factors in order to satisfy consumer demands and secure price premiums. Such initiatives will lead to a greater number of PEI producers that are able to leverage the region's unique credence factors in order to satisfy consumer demands and, through following such a strategy, secure price premiums.
The successful marketing of GM-free products, and the ability for producers to achieve sustainable financial premiums for their products, will rely on factors such as adherence to production, handling, and processing protocols, and communicating an effective value proposition to consumers. These are the same critical success factors that apply to all marketing initiatives for differentiated agricultural and agri-food products, regardless of the existence of a dedicated regional production system. The development of closely-aligned value chains[1] that can provide producers with sustainable price premiums is a business-level strategy. Their success is based upon the existence of companies possessing complementary culture, vision, leadership and structure. Value chains are not an industry level strategy, which the development of a GM-free production zone would be. Expecting a business level strategy to be adopted across an entire industry or region is unrealistic (Collins & Lim Camacho, 2005; Dunne, 2003).

The research findings clearly indicate that significant market opportunities exist for PEI's producers to secure premium returns through undertaking target marketing and differentiation strategies. 'Fresh Obsessed Potatoes' is an example of where this is already occurring in PEI and benefiting local producers. Identified opportunities exist for PEI's organic and non-organic products in Canada, the United States and Japan, as well as countries situated in Northern Europe. A number of potential customers of PEI products interviewed during the research process stated that, partly because PEI is a relatively small producer of agricultural products and partly because of its geographic situation and history, it has a unique opportunity to strategically promote itself as the source for high quality differentiated crops, and capture added value accordingly. Some of the respondents have offered to assist PEI take this step forward.

Recommendations
The final section of this report included a recommendation for a legislative approach that would benefit the majority of organic, non-GM[2] and GM producers alike. It would provide a foundation upon which PEI's agricultural and agri-food industry could utilize its efforts to establish closer links with participants operating the rest of the agri-food industry and,

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[1] Throughout this report, the term 'value chain' is used to describe the concept of Value Chain Management (VCM). The essence of VCM is that through closely aligning their individual operations through the extensive sharing of information, organisations can focus their combined resources on producing a final good that meets the demands of the end market better than the competition (Roberts, Gregory, Cornwell & O'Keeffe, 2002). VCM is about improving processes, quality, reducing transaction costs, and improving relationships between and within companies involved in supplying an end product to the consumer. VCM is therefore, ultimately, about enabling companies to adapt to changes occurring in the marketplace by working together to improve their long-term competitiveness (Collins, 2003). It is equally relevant to the marketing and production of premium products and commodities.

[2] For the purpose of this report we have defined GM-free as the equivalent to non-GM, thus the term can be used interchangeably.

ultimately, end markets. The most beneficial outcomes of such an approach would be the identification of opportunities for PEI to benefit from the production of value-added differentiated products.

Section 6.0 is a discussion of the specific market opportunities that emerged throughout this research. Section 6.1 reviews the market opportunities for Europe (6.1.1), North American (6.1.2) and Japan (6.1.3). Section 6.2 summarizes the market opportunities and section 6.3 concludes with the legislative alternatives for PEI.