Selling Green: Agri-Environmental Certifications in Ontario

by

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A Thesis
presented to
The University of Guelph

In partial fulfilment of requirements
for the degree of
Master of Science
in
Rural Planning and Development

Guelph, Ontario, Canada

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Utilizing a multiple account benefit-cost framework, this paper will identify and examine three different types of certifications in Ontario: market-driven, regulatory and voluntary. These three types of certification will provide the basis for the analysis of the distribution of benefits and costs in certification programs in the following three case studies: Local Food Plus, Canadian Quality Milk and the Canada-Ontario Environmental Farm Plan. From farmer to fork, the benefits and costs of certifications will be analyzed and best practices from these case studies will be identified. Indicators for success in certifications and recommendations for application in Ontario will be explored.
Dedication

Firstly, to my academic resources including the University of Guelph, staff and the SEDRD department for accepting me into the program and teaching me so much along the way. To my advisor, Dr. John FitzGibbon, you have provided me with incredible opportunities, valuable insight and acted as a great resource for ideas. Your guidance has been truly immeasurable and I couldn’t have asked for a better advisor. To my committee members- thank you for your time and direction. Your help will always be appreciated.

Thank you to the farmers, retailers, processors and certification heads who agreed to speak with me, this project would have not been possible without you and your hands-on knowledge. I hope I did you and your words justice.

Finally, to my friends, family and Mitch; you have dealt with me through the highs and lows, gave me a shoulder to cry on, edited and have listened to more than your share of thesis-related complaints. I’m sure this process has educated you just as much as it has me on my topic. Thank you for all that you do, all that you are, and all that you have been to me my entire life.
Acknowledgements:

The author would like to acknowledge the gracious funding received through the University of Guelph/ Ontario Ministry of Agriculture, Food and Rural Affairs Research Program that made this research possible. Further support from the Ontario Agricultural College Dean’s scholarship and the Board of Graduate Studies Research Scholarship were greatly appreciated.
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Chapter One

Introduction

The rise of certifications, agri-environmental programs and eco-labelling schemes in recent years has provided farmers with different programs to "promote individual production locales, particular production processes or specific agricultural and craft products" (Loudan & McRae, 2010). Furthermore, the process of certification has provided consumers with a way to recognize and purchase different products that can meet their unique needs and views. These programs offer benefits and consequences to all those involved in the value chain, both of which will be explored through this research.

Certifications are aimed at formally differentiating specialized products from the conventionally produced equivalents. This differentiation is based on standards associated with the product, the process, or the place of production. Through a range of practices, the implementation of standards, third party auditing and product labelling the certifications are independently verified and communicated to consumers (Higgins, Dibden & Cocklin, 2008).

This research is relevant to various stakeholders including: government, consumers, retailers and those in the agricultural industry. Exploring the environmental certification of farms and agri-environmental programs is not only relevant to the stakeholders but is also important due to the diverse impact that agriculture has on the natural environment. Food and food production touches all people and can positively and negatively affect the environment.
In order to compare across a set of attributes, the study of the certifications will be split into three broad categories: market-driven, regulatory and voluntary. Each of these different types of certifications will have a case study to delve deeper into the issues at hand. The case study research will provide this study with knowledgeable, first-hand experience.

The objectives for the research are to discover and explain best practices of certifications and evaluate their effectiveness through costs and benefits. Using a multiple account benefit-cost analysis framework and first-hand accounts of participants in the certifications themselves will complete this evaluation.

**Problem Statement:**

Ontario consumers are demanding “sustainable” and more “environmentally-friendly” food, but many programs in the marketplace today are not providing the following: transparency; consumer assurance; or satisfaction of consumer demands. This research will examine options for more verifiable, audited and clearly-labelled certification program and suggest methods for application in Ontario. A successful program would serve to meet this growing consumer demand and have the potential to help farmers find and develop markets to increase sales.

**Goals:**

1. To explore different types of certifications in the current Ontario market and abroad.
2. Gather information across the value chain to discover costs and benefits from participation in different certifications or agri-environmental programs.
3. Use these costs and benefits to make recommendations on best practices for application in Ontario.
Outline:

Chapter One will introduce the environmental certification of Ontario's farms, who the stakeholders in the process are and why it needs research. This chapter will provide a broad overview of the direction of the study and a general outline.

Chapter Two will detail the views that the literature has presented on certifications and how they function at present. Here, certifications, agri-environmental programs and eco-labelling will be defined and the different types of certifications will be introduced and explored. This chapter will also examine the motivating factors for stakeholders to participate in, support, or purchase from a certification.

In Chapter Three the methods of the study will be discussed. The multiple account cost benefit model will be explained and established as the framework and the categories for comparison will be discussed. How and when the data collection occurred; why and how key informant interviews were used; case study selection and procedures will be outlined. The limits of the study will be addressed in this chapter.

In Chapter Four the individual case studies and their backgrounds will be introduced. A discussion surrounding results and findings from these individual case studies will summarize and use the information obtained from the interviews.

Finally, in Chapter Five the results will be analyzed and related back to the costs and the benefits of each certification; how these costs and benefits are distributed across the value chain will be discovered. This information will be used to make informed judgments about the potential application in Ontario and best practices will be identified.
Chapter Two

Background

Farming, or producing agricultural goods for consumption, inherently modifies the environment where it is practiced. It unavoidably generates residuals and by-products such as: soil sediments, nutrients, pesticides, residues, mineral salts, heavy metals and disease organisms. Furthermore, agriculture has the potential to impact species diversity, air quality, natural habitat, and water quality (Weersink et. al., 1998). Since agriculture entails extensive land coverage, and the potential for land modification, it can have large-scale impacts both positively and negatively (Ervin & Casey, 2008).

How and what we eat is a significant determinant as to how natural resources are used and misused. Many resources are used to grow, harvest and transport food. A food system that is more proximate to the consumer is said to be more ecologically sustainable due to the decreases in fossil fuel that is associated with shipping goods across long distances. Many people, both within and outside of the food industry are concerned for the sustainability of Canada’s food system, which is characterized by a large number of imports from across the world. Furthermore, the health of the environment in which this food system operates needs to be sustained and enhanced for use in this generation as well as future generations (Kloppenburg et. al, 2000).

Environmental attributes are known as public goods. Environmental harm and environmental improvements made on the farm can represent market externalities that often do not influence the price of the good, and can be hard to quantify numerically. Since these environmental impacts cannot be easily quantified, farmers have an incentive to ignore them when making management decisions. Additionally, farmers
may not be totally aware of the adverse impacts they are causing (Weersink et. al., 1998).

If there are externalities, the market is not allocating resources effectively or efficiently, which then results in market distortions (Hobbs et. al, 2005). Since environmental quality is a public good, many businesses are uninterested in providing these public goods because the business cannot recover these costs from the market (Reinhardt, 1998). Therefore without proper incentives, the balance between production and minimizing environmental impacts is unlikely to be achieved (Yiridoe, 2000).

More recently in Canada there has been a push to better improve environmental management in agriculture. Firstly, there has been an investment in research and development to better understand and improve land management practices in order to minimize environmental harm that is attributable to agriculture. This research concludes with “best management practices” or BMPs which farmers are encouraged to implement at the farm level. Secondly, there have been public programs implemented that include incentives to get farmers to participate in agri-environmental programs to improve their individual environmental management. The basis for these agri-environmental programs is often the BMPs identified through research. Finally, there has been direct regulation of the agricultural industry through land use policies, permits, and water-related legislation with which farmers are forced to comply (Smithers & Furman, 2003).

Eco-Labelling, Agri-Environmental Programs and Environmental Certification
How Do They Work?

The goal of all environmental labelling and certification schemes is to provide relevant environmental information to interested groups, which consists mainly of consumers. There are two main strategies of information dispersal at a company’s disposal including: environmental labels and environmental certification systems. Because of the different designs, these tools have slightly different characteristics and serve to fulfill slightly different roles. Differences in the type and amount of information provided; the credibility and consistency of the information; and the manner in which it is distributed provide the unique distinctiveness of each program and influence the appropriateness to the situation. These types of programs provide consumers with additional information to make more informed choices (Rotherham, 2000). While not all labels attract consumers, the hope is that informed consumers who are exposed to the label will change their purchasing behaviour (Tiesel, 2007).

Certifications, agri-environmental programs and eco-labels are programs with which participants comply, both voluntarily and forcibly. Eco-labels and certifications usually entail setting criteria so that only a small percentage of products in a certain category- about 5-30 percent of the market- can obtain the label (OECD, 1997). These standards must be adhered to in order to keep the certification and regular inspection is the norm (Loudan & McRae, 2010). Eco-labels usually refer to just one product whereas a certification can cover the entire production chain and facility where the products are grown (in this case, the farm). Certifications can provide further assurance by providing information on the production practices (Hatanaka, et. al., 2005).

Certifications and other associated programs are generally made up of the same components including: rules and regulations, terms of auditing, and compliance
measures. Usually, the auditing procedures are based on ISO 65/ EN 45011, which are general provisions for certification bodies. These certification schemes can be aimed at the farmer, the supply-chain, the consumer, or all three (Albersmeier et. al., 2009).

Figure 1: Basic Structure of a Certification (Albersmeier et. al., 2009)

The process of obtaining a certification or agri-environmental program is similar in most cases. First, a farmer applies for certification with the certifying body. Next, the certifier conducts a pre-assessment and documentation review of a farmer’s facilities and production operations. Then, the farmer is audited. Finally, when conformity with the certification standards is verified, the farmer is issued a certification and is allowed to label its products, if there is a label. In general, farmers are responsible for meeting the costs of the certification (Hatanaka et. al, 2005).

Certification programs can provide farmers a way to build three types of relationships with consumers: face-to-face, proximate and extended. In a face-to-face transaction, consumers purchase directly from the farmer in a situation such as on-farm markets, farmers’ markets, ‘pick your own’ etc. In a proximate relationship, consumers buy products they know are produced in, or close to them. In this type of relationship, the consumer is assured of the attributes by labels, community-supported agriculture,
etc. In an extended relationship, consumers do not personally experience the attributes of where the products is grown or processed, but are still assured of certain attributes. An example would be purchasing champagne wine or parmigiano-reggiano cheese, both of which are only produced in certain areas with defined techniques, but for many North American consumers, these products are produced very far away (Higgins, Dibden & Cocklin, 2008).

**Communicating to the Consumer:**

Labelling is a common and important by-product of participation in a certification program. It entails displaying a logo or statement on the packaging of a product to make value-based claims. Labelling can be an important tool to differentiate food produced in an environmentally friendly manner from its “conventionally-produced” equivalent (Hobbs, et. al., 2005). General examples of these labels in the market today can include: organic, free-trade or humanely-raised (Loudan & McRae, 2010).

Labels represent a new environmental policy which is market-based, consumer-driven, and jointly formulated and implemented by the state and private associations (Koos, 2011). The differentiation that labels provide allows consumers to “vote through the marketplace” for more environmentally friendly practices (Rotherham, 2000). Labels signal to consumers how the product was produced and can reduce information costs for consumers, but impose additional costs on firms. Therefore, these labels can represent a sunk cost, as they do not always secure a premium from consumers (Hobbs et. al., 2005).

Consumers face the problem of information asymmetry. That is, upon inspection, one can rarely tell the difference between the products that are produced in
accordance with a certification or eco-labelling program and those that are not. Without additional information (i.e. a label) consumers are not able to make the choice that suits their needs (Hobbs et. al., 2005). Therefore, communication and information dispersion to the consumer is extremely important. Information can have a large impact on consumers’ knowledge, in shaping their attitudes towards food, and ultimately, the hope is that this information provision will lead to a change in their purchasing behaviour. Marketers and certifications that have a corporate focus on information and communication to encourage consumers to buy the certified product and can use strategies such as: product differentiation, advertising and market orientation (Verbeke, 2008).

The task of using certification labels to acquire and maintain a consumer base can only be fulfilled if the institutions in charge succeed in assuring high quality control to guarantee the validity and reliability of the program. A label or program is only as effective as the reputation for quality it garners in the marketplace (Albersmeier et. al., 2009). There is a high incentive to be constantly vigilant to quality control in order to forge consumer loyalty to the brand.

**Keys to Successful Certifications:**

There are many differing opinions on what makes up a successful certification scheme. Ervine and Casey state that the programs must have: clearly defined biophysical goals to be obtained; and a robust monitoring mechanism to ensure compliance, monitor success, and evaluate the progress made toward obtaining these goals (2008). Conversely, Kloppenburg et. al. have identified many more factors that they feel affect a successful eco-label including: ecologically sustainable,
knowledgeable/communicative, proximate, economically sustaining, participatory, ethical, regulated, sacred, healthful, diverse, culturally nourishing, seasonal, value-orientatated economics and relational (2000). Reinhardt has three requirements for success that include: consumer willingness to pay, credible information and barriers to imitation (1998).

Certification is argued to have a number of benefits for both consumers and producers. Firstly, it responds to a growing demand in the Western market for foods that are produced in ethical, environmentally sustainable and socially just ways. Secondly, it can provide the potential for substantial benefits to producers that deliver gains to rural livelihood through the receipt of market premiums. Thirdly, certification programs usually promote social and environmental sustainability through practices and systems that are more ethical and sustainable (Higgins, Dibden & Cocklin, 2008).

**Recent Trends:**

Certification in the food and agriculture sector has been expanding in recent years. Since the 1990s eco-labelling and certifications have dramatically changed the way that farmers can market themselves and their crops to the consumer (Loudan & McRae, 2010). With the rise of consumer interest in organically and locally produced food, as well as concerns surrounding the environment, the agricultural sector has been striving to respond. In Canada, the vast array of certification schemes has lead to some confusion on the consumer’s part and a lack of verifiable assurance that the consumer is indeed buying the product they think they are. Decreased consumer confidence in both the Canadian market and in the producer has resulted from this disconnect (Verbeke, 2008). In order to meet the growing demand for “environmentally-friendly”
food, farmers, retailers, value-adding companies and food processors have been developing and participating in environmental certification systems in order to assure the consumer of certain practices.

With a large and growing interest in environmentally friendly food, farmers have attempted to capitalize. Recent findings indicate that the use of certain terms including: “natural”, “sustainable” and “local” can increase market share for the farmer, but these terms are loosely defined and the regulatory system lacks guidelines for how they can be used. Therefore, the use of these terms can only be assessed against general fraud prevention regulations, which results in a piecemeal, case-by-case determination of compliance. Farmers have also started to comply with value-based certifications like organic, fair-trade or humanely raised animal products (Loudan & McRae, 2010).

**Motivating Factors for Certification**

**Farmers:**

Personal, social and situational characteristics of farmers often influence their decision to participate in agri-environmental programs or certification. The following factors help us to understand why, how and when a farmer may choose to participate: age, education, professional experience, personal indications of success and awareness of environmental issues both on and off the farm (Smithers & Furman, 2003).

A farmer’s decision to participate in a certification or agri-environmental program is often swayed by their own personal learning styles and whether or not they see the program as a relevant endeavor to which they should devote time. Business indicators are also a factor in precluding farmer participation. Factors such as: farm size, number
of employees, time spent on the farm weekly, gross receipts and tenure agreements (Smithers & Furman, 2003).

Farmers are consistently looking for ways to advance their business and often see certification programs as a potential vehicle to do this. Some are looking to edge out competitors and give themselves differentiation in the marketplace from other products of the same nature. Many farmers access certification programs in hopes of using the certification’s experts to better market their businesses, or access different sectors of the food industry. By attaching themselves to an established brand, farmers hope for more consumer recognition, especially in urban markets. Farmers can also be influenced to pursue certification for the additional knowledge and ideas it provides to them. Farmers will choose to certify because certain retailers or wholesalers require certified products to pursue business or contracts with them. Some wish to stay competitive and ahead of the trends. Farmers want to serve their customers the best way that they can, so some farmers certify to give the consumer more assurance of the practices they are doing on a day-to-day basis (Hatanaka et. al., 2005).

Alternatively, farmers may be required to certify by governmental regulation. In this case, they are required to maintain their facility at a certain level in order to remain in operation. This can assure the consumer of cleanliness and food safety. In this situation, farmers do not have a choice, they must certify in order to stay in business.

Stewardship can play a large role in the decision to certify. Many farmers have a vested interest in maintaining their land for future generations and strive to make decisions now that will not jeopardize the future of their farm. These decisions often arise from the knowledge the farmer gains by participating in certification or agri-environmental programs. Agriculture, like any other business, is continually looking to
advance and become more efficient. Certification can be a way to meet advancement goals for agriculture.

Furthermore, farmers participate in certification schemes to signal quality to the consumer beyond buying face-to-face. Certifications demonstrate quality standards that the farmers are applying to the customers, regulators and the market (Higgins, Dibden & Cocklin, 2008).

A farmer may make the choice to participate in a certification to provide more public good that results from changing their production styles. The farmer would then hope to capture these additional costs from the consumer by retailing their product at a higher price (Reinhardt, 1998). Many believe that it “pays to be green” and argue that farms can increase their profits if they make environmental management a central principle of their business plan (Reinhardt, 1998). Certification mechanisms can benefit the farmer further by potentially lowering search costs for purchasing materials and services as well as lowering marketing costs (Hobbs et. al., 2005).

**Processors and Retailers:**

Processors and retailers are often responding to their customer wants and needs by pursuing or requiring certifications for the products they sell. For the retailer or processor, requiring a certification is an easy way to control the quality of product from the source through the value chain. Retailers and processors often see certification as a means to differentiate their product and provide quality assurance to the consumer. Some retailers and processors pursue certification to stay ahead of the regulation curve and then lobby for an increase in government regulation to meet the certification standards. This action could possibly result in forcing their lagging competition out of
business. Some processors become more environmentally conscious because of the potential increase in their profits if they set ambitious environmental targets, lobby for tighter regulation and brand themselves with a “green” image (Reinhardt, 1998). With a reputation that stresses a high quality product, a certification could result in additional market share and a boost to the firm’s overall reputation (Fulponi, 2006).

Certification is a regulatory mechanism that provides retailers and processors with: “(1) the flexibility to differentiate agrifood products they sell by the attributes that concern them, (2) ensures the consistent implementation of standards regardless of the product’s origin, while at the same time, (3) minimizing transaction costs and financial liability” (Hatanaka et. al., 2005, p. 356). Consequently, a growing number of supermarket chains are implementing certifications (Hatanaka et. al. 2005).

Certifications can have a lot of benefits for retailers in conjunction to food safety and quality assurance. Retailer’s responsibility for policing and monitoring standards is minimized as this role is often passed onto a third party. With this transfer of responsibility to a third party, the retailer minimizes the liability associated with the product while the associated costs with monitoring food safety are passed to the farmer and supplier. Finally, retailers can use certification as a marketing tool to signal to customers the quality and safety and also to differentiate the product from other retailers in the marketplace. All in all, certification can reduce transaction costs for retailers while assuring quality, safety and minimize product failure, which can result in increased efficiency (Hatanaka et. al., 2005). By adopting environmental management systems, like a certification, retailers and processors can more conclusively assess, control and monitor their environmental impacts. A company can indicate that it has effective control over its environmental impacts through a certification. By participating, a
company then limits its exposure to litigation, fines, or negative public opinion that can result from environmental failure (Rotherham, 2000).

Retailers recognize that private standards without a certification or labelling scheme to ensure enforcement and quality are insufficient in the market today. Furthermore, retailers know that in the absence of face-to-face interaction with the farmer, retailers themselves are held accountable for the safety and quality of the products they sell, especially retailer-branded products (Hatanaka et. al., 2005). Therefore to forge consumer loyalty, both retailers and processors need to remain constantly vigilant to quality as means to uphold to the certification’s reputation. The ideal result for a processor or retailer participating in a certification or agri-environmental programs would be an increase in market share and a boost to the firm’s reputation (Fulponi, 2006).

As food retailing becomes more concentrated in the marketplace, retailers and processors will have more opportunity to exert their power across the value chain and can require that farmers be certified to sell to these large retailers and processing companies (Hatanaka et. al., 2005).

**Consumers:**

Today’s food system is characterized as a supply chain that spans the globe, and while this style of food provision is growing, there is some consumer movement away from this model. Some consumers are shifting their purchasing power to an alternative and “shorter” food network that moves away from international, industrialized and standardized to notions of ‘quality’, ‘place’ and ‘nature’ (Higgins, Dibden & Cocklin, 2008).
Consumers are beginning to recognize the need to have their food source close to them and produced in a sustainable manner in order to be as environmentally friendly as possible. At present, consumers have little opportunity to purchase local, sustainably-produced agricultural products beyond purchasing at an on-farm market or from a farmers' market (Friedmann, 2007).

A more direct and informative relationship can be fostered through purchasing at an on-farm market or farmers’ market rather than the distant and highly commercialized relationship that is fostered by conventional food production. This assurance can increase consumers’ non-economic dimensions of trust and regard (Higgins, Dibden & Cocklin, 2008). However, not all consumers have the means or the time to purchase at an on-farm market or farmers’ market.

Consumers are not homogenous in their feelings or preferences towards the environment, food quality or food safety and make their purchasing decisions accordingly (Hobbs et. al., 2005). Furthermore, consumers are interested in and buying differentiated products. Higgins, Dibden and Cocklin argue that there are:

1. “Growing numbers of affluent consumers who demand diversity and distinctiveness in food;
2. Increased public concern over issues such as health, ecology and animal welfare, and
3. A series of food scares (BSE, foot and mouth disease) which have undermined public confidence in conventional food production” (2008, p. 17).

Today’s consumers can be more particular in their choices because of higher incomes, increased mobility and the fact that they are more socially conscious than their parents before them (Fulponi, 2006).

When making food-purchasing decisions, consumers weigh health and nutrition against other motives such as taste, price and convenience along with numerous other
person and environmental factors. These factors all influence the choice to purchase a particular product. Consumers must perceive a need for the information on the label and recognize a clear benefit from purchasing and using it (Verbeke, 2008).

**Challenges for Certifications**

Certifications and agri-environmental programs can have several barriers to participation. Firstly, these programs can be expensive to join and maintain. The costs associated with participation manifest in transaction costs, such as certification fees, inspection fees and required upgrades as well as additional costs with the participant’s time and labour (Higgins, Dibden & Cocklin, 2008). For these reasons, small and medium-sized producers may not possess the economy of scale to fully benefit from certification (Hatanaka et. al., 2005).

Another problem facing certifications is that consumers may not understand, or care, what the certification signifies. By having too many confusing information cues on the label, certifications and eco-labels can run the risk of overloading the consumer with information. A lack of communication and this overloading of the consumer can potentially result in the consumer not recognizing, becoming indifferent, or misunderstanding the meaning of the label (Verbeke, 2008). If this is the case, there is a diminished market for a premium on the certified product. Consumers can act on limited, and sometimes inappropriate, information due to the fact that they are not expected to, or cannot, devote as much time as experts to the subject (Newholm, 1999).

Certifications can have difficulties spreading the gross benefits of the certification across the entire value chain. There is an increased dominance of powerful private actors in certifications whom place the whole burden of certification onto the
smallholders. This erodes any benefits that farmers would see from the certification. Additionally, large-scale retailers can require certification as a condition for supply, potentially, without paying a higher price for the goods, which again diminishes the potential for a return for the farmer. This type of certification provides the retailer with additional branding and another tool for profit making, while not increasing price for the farmer (Higgins, Dibden & Cocklin, 2008).

Certifications can increase technical barriers to trade and force the importing country’s environmental standards on the exporting nation. Some argue that environmental labels such as certification, agri-environmental programs and eco-labels allow special interests to strategically manipulate principles, criteria, and implementation in order to protect domestic producers. These barriers can distort normal free-market trade in favour of “green” production (Rotherham, 1999).

Furthermore, due to the potentially high cost of certification, the lack of necessary infrastructure in some countries, and the fact that companies in developed countries can have more experience using management systems, critics claim that certification schemes serve to benefit large Western companies, often at the expense of companies in developing countries (Rotherham, 2000).

Finally, the environmental effectiveness of any certification program is hard to evaluate given that measuring positive or negative externalities that are directly attributed to the program is hard to quantify numerically. It can be difficult to isolate any benefits that are achieved through the certifications, as these benefits could be attributable to any number of environmental improvements. Thus, getting concrete numbers can be challenging (OECD, 2005).
The Government’s Role

In Canada, the Canadian Food Inspection Agency (CFIA) and Health Canada (HC) work together to regulate food labelling based on the legislative authorities provided by the Food and Drugs Act and Consumer Packaging and Labelling Act. Health Canada is primarily responsible for food-labelling policies that deal with the health and safety of the public; such as nutritional content or special dietary needs. The CFIA is responsible for food labelling regulations and policies not directly related to health and safety. In addition, the CFIA is responsible “for investigating consumer and industry complaints, developing programs designed to encourage compliance with the provisions of the respective acts, and developing consumer protection policies.” The CFIA’s main concern is that no label is purposefully misleading, false or deceptive (Loudan & McRae, 2010).

For any food certification, the level of government intervention may range from doing nothing and letting the market find a solution to direct regulation. Certifications are also highly impacted by public scrutiny and budgetary concerns. Given the scarcity of public sector money, there have been increasing opportunities for partnerships between the private sector or third parties to step in and create a certification scheme (Martinez et. al., 2007).

Although the government has extended some responsibility to the agribusiness sector in certification, the public still relies on government intervention if food safety or contamination scandals do occur (Albersmeier et. al., 2009).

Some argue that by allowing the privatization of environmental management, governments can then focus on prosecuting the worst offenders. Also, the government can provide advantages to companies that choose to participate in environmental
management programs such as using the certification in lieu of permits, licenses or inspections (Rotherham, 2000).

**Types of Certifications**

There are several certification schemes and agri-environmental programs in both the Canadian and International marketplace today. These certifications can be similar but differ in key areas such as: management, farmer participation, auditing, accreditation and requirements. For means of differentiation in this study, the broad subject of certification schemes will be further broken into three categories: market-driven, regulatory and voluntary. Market-driven certification necessitates: farmers furthering their market access, differentiation of their products, accessing niche markets or garnering a premium in the marketplace. Voluntary certifications arise when the farmer participates in a program to match their personal belief system and performs stewardship-based activities with little differentiation to the consumer and little to no return in the market. Finally, regulatory certification can be exemplified in situations where the government mandates the producer to participate in the scheme or forces conformity with compulsory standards.

These categories are not mutually exclusive and some certifications may have elements of all three types. Certification schemes and labels differ greatly according to the owner responsible for developing the standards and control procedures (Albersmeier et. al., 2009).
Figure 1: Basic Structure of a Certification (Albersmeier et. al., 2009)

This figure provides a means to discover who owns the system, how it is applied, and how it works. We will be returning to Albersmeier et. al.'s framework to evaluate and explain each different type of certification scheme.

**Market-Driven Certification Schemes:**

Market-driven certification schemes are mandated and run by an independent third-party certifier to meet consumer demands. These certifications provide a mechanism for market differentiation of the farmer’s product based on voluntary participation in a number of criteria. This may, or may not allow, for the farmer to retail their product at a higher price point (Reinhardt, 1998).

Farmers participate in market-driven schemes to differentiate themselves from producers of conventional food products. By creating specialty or differentiated items, farmers hope to obtain a greater percentage of the food consumer’s dollar (Loudan & McRae, 2010). There are many ways that a successful market-driven certification can market these specialty and differentiated items. A positive reputation is a key factor in determining the success of a market-driven certification. By providing consumers with a
reliable and a consistently safe product, the market-driven certification builds a positive reputation that is ensured with an inherent auditing or compliance mechanism (Fulponi, 2006). Brand image and identity that are linked positively with health and nutrition are important assets to an eco-label or certification and consumers often respond favorably to this branding (Verbeke, 2008).

Successful market-driven schemes are viewed as being more innovative and flexible; not having long-term unchangeable effects; and have built-in incentives to over-comply or go above and beyond the minimum quality standards (Albersmeier et. al., 2009). Another benefit to this type of certification scheme is that government resources in the form of either direct expenditures or labour costs are not used. This saves the taxpayer money.

There are associated drawbacks with participation in a market-driven certification scheme. From a consumer point of view, private companies and certification schemes are not required to be as transparent or accountable as a government entity would be; this raises questions of trustworthiness. This lack of transparency can raise pertinent questions for governance- should the private sector be regulating themselves or is this a conflict of interest? Private standards and regulators may vie for the expansion of certification standards to be applied as the regulation norm and govern the global food system (Fulponi, 2006).

Market-driven certifications are owned by an independent, often not-for-profit, organization. The owner of a market-driven certification is focused on the marketing and branding of the certification. The monitoring and auditing portion of the certification is often outsourced to an independent third party who uses the certification’s standards to evaluate the participating farmers.
The auditing task of a market-driven certification is often carried out by either an Organic or International Standards Organization (ISO) certified inspector. The certified products can then be sold to a specialized supplier and then sold in both conventional and specialized grocery stores. The consumer should be made aware of these certifications by an accompanying label or marketing campaign to gain recognition and get consumers to change their purchasing behaviour (Albersmeier et. al., 2009).

**Regulatory Certification Schemes:**

Regulatory certifications are administered as a command and control mechanism wherein governments force or strongly encourage compliance through: market-based instruments, monetary incentives or legislation. Command and control is associated with setting universal standards and strictly enforcing them. Companies must adhere to practices, technologies or approved activities as to avoid repercussions (Weersink et. al., 1998).

Regulatory certifications are administered by the government or by crown corporations, which make them subject to the transparency and accountability norms. Therefore, the average consumer can potentially have more access to information pertaining to the certification. Due to the nature of the food system, when a food scare occurs, such as a food borne illness, contamination etc, most consumers turn to the government to change or regulate practices to prevent future occurrences. Since the government is often blamed in the case of scandals, it can be proactive to regulate the industry to avoid losing the public’s confidence or other negative consequences that can arise from incidents of contaminated foods and other issues (Albersmeier et. al., 2009).
Regulatory certification schemes are often successful in effectively controlling actions but they have some associated drawbacks. Some economists dislike these types of certification schemes because the administrative, monitoring and enforcement costs associated with the program are put onto the taxpayer. Command and control can be less effective than market-based instruments because they do not encourage a firm to go above and beyond the regulations. In a sense, they stifle innovation and the potential technological advances because there is little incentive to improve environmental performance beyond the minimum standards (Albersmeier et. al., 2009).

Returning again to Albersmeier et. al. (2009), regulatory certifications are owned by the government who impose monitoring and accreditation onto those participating in the industry in question. Unlike market-based certifications, governments often train and employ their own inspectors. The standards that govern a regulatory certification are often developed in part with the industry and the regulatory body to ensure viability. These standards are passed onto the supplier and retailer who ensure food quality and safety to the consumer.

**Voluntary Certification Schemes:**

Farmers participate in voluntary certification schemes for a variety of reasons. They may feel that it is their duty to improve their environmental performance as per their own personal beliefs. Farmers may undertake these voluntary activities to signal to government regulators that they are making efforts to improve their environmental performance, with the motivation of mitigating the stringency with which existing regulations are enforced, hardened or extended in the future. Farms that face higher costs of compliance and the threat of more stringent enforcement may have greater
incentives to participate in voluntary certification schemes in order to stay ahead of the regulation curve. Voluntary participation can also serve to mitigate potential environmental problems before they become serious in the future (Khanna et. al, 2007).

Facility size can have impact on the adoption of voluntary certification schemes. Larger farms have a more vested interest in maintaining and improving their brand. Additionally larger farms can have more capital to devote to environmental improvement and are able to afford the increased costs associated with a voluntary certification scheme. Large farms can rely more heavily on their reputation for the business that they do and can be more susceptible to public opinion (Khanna et. al., 2007).

Again, there are occasionally market-based reasons to participate in this type of certification scheme. The product can be differentiated from their competitors and there is potential for the product to access markets that it was not able to before certification. Additionally, the farmer can sell to a more environmentally and socially conscious consumer and build a reputation of quality and concernedness.

Using Albersmeier et. al’s (2009) framework again, the ownership of a voluntary certification can be shared, usually between the government and another party. The government will fund the activities to encourage participation and farmer benefit, but administration function and the leadership role would lie with the third party. The certification body could potentially consist of groups such as: an independent third party, trained professionals in the industry or service providers.
Chapter 3

Introduction

In order to analyze the different types of certifications, researchers needed to gather and evaluate information about certifications and agri-environmental programs in the market today. This was carried out by document analysis and speaking one-on-one to those currently partaking in, managing and using the certifications. To analyze certifications and the experiences of those involved in the certifications, a value chain approach was adopted. A value chain approach examines the certification at the level of the farmer; of the processor or retailer; and assesses management levels of each of the different certifications. As explained in the previous chapter, the analysis was completed on the three different types of certifications: market-driven, regulatory and voluntary. The structure of this approach resulted in a multiple-case studies design that was fluid and flexible.

Framework

For any replicable process, there needs to be a well-developed theoretical framework. This framework becomes the vehicle for applications to new cases in the future (Yin, 2009). The following multiple account benefit-cost analysis framework is the guide on which this study is based.

Multiple Account Benefit-Cost Process:

The multiple account benefit-cost analysis model was used to evaluate the advantages and disadvantages of certifications and the implications of policies to all key stakeholders. A multiple account benefit-cost model is based on the values held by the
stakeholders and the value they place on the outcomes of the project. It establishes a context that allows for the systematic identification and assessment of costs and benefits arising from the different certification programs. Values were broken into evaluation accounts and presented in a matrix summary of monetized and non-monetized results (Shaffer, 2010).

A multiple account benefit-cost model was used as opposed to a traditional benefit-cost model because it is difficult to assign a definitive dollar value to environmental, social and other non-market attributes (Shaffer, 2010). While the multiple account benefit-cost model does not produce a net bottom line such as a traditional benefit-cost analysis, it does serve to better inform and advance policy debate surrounding the issue which can lead to a more robust analysis. It identifies the key advantages, trade-offs and consequences of participation in each certification. This model also better addresses the distribution of benefits and consequences within the certification value chain (Shaffer, 2010).

A multiple account benefit-cost model breaks down benefits and costs by using both market-valued and social consequences. This approach is a better fit for this study as it adequately examines environmental attributes that are often associated with certification. The public goods provided by the farmer yields little monetary return in the market and are hard to quantify in a traditional benefit-cost model. By taking into account social consequences, we find who is truly affected by the certification, and by what margin (Shaffer, 2010).

For the comparison between the certifications, the criteria from Agriculture and Agri-Food Canada’s *Conceptual Framework for Analyzing the Costs and Benefits of On-Farm Food Safety and Environmental Farm Plans* was used. These categories will form
the basis for how the three types of certifications will be compared and analyzed. The conceptual framework has three main categories: private benefits, public benefits and costs. These main categories are then broken into a variety of sub-categories.

**Figure 2: Conceptual Framework for Analyzing Benefits and Costs**

**Procedures**

Key informant stakeholder interviews are to make up the main analysis of the case studies, and will be supplemented by document analysis. Key informant interviews (KII) are best suited to this research because they focus on the expert
analysis of people directly involved in the certifications. Experts will be carefully chosen because they have a precise understanding of the issue at hand and represent a large variety of business models, sizes and scales in the agricultural industry (Marshall, 1996). Key informants can often provide information that cannot be obtained from other sources such as direct personal experiences and other information that is not public knowledge. Due to the flexible nature of KII, as new ideas and issues emerge, they can be further explored and investigated (Kumar, 1989). This phenomenological study strived to choose participants who have experienced or were experiencing participation in a certification or agri-environmental program (Rudestam, 2000).

In order to choose interviewees, criterion sampling was utilized; with the criteria being the farmers had to be certified. When choosing farmers, the researchers aimed to be as representative as possible with respect to size, age, and type of farm. In the case of the certification managers, the managers were actively managing the certification. When choosing retailers, the criterion was that the retailer was committed to the certified products. The interviewees were selected through a non-random procedure using mainly word of mouth and the Internet. The study remained open and flexible throughout the process as a means to stay open to discovery (Rudestam, 2000).

The managers of the certifications were contacted through an initial email explaining the research and myself. The email addresses for these managers were found through an Internet search on the certification, as most of the certifications list contact information or a general email on their website. Once the managers replied, a phone interview date was set up and completed.
Retailers and processors were found through Internet searches and in some instances, on the advice of certification managers. These retailers were also contacted via email and an in-person or phone interview was set up and completed.

Farmers proved to be the most challenging participant in the data retrieval process. Farmers proved to be private about their businesses and farming procedures and so convincing them to participate openly in the study, or even reply to the initial request for an interview was challenging. Farmers were cold-called or emailed based on Internet findings and word of mouth. Some certifications provided a list of certified farmers on their website including contact information. In this case, farmers were picked randomly from the list and contacted. Other farmers were contacted through word of mouth, farmer recommendations and retailer recommendations both through email and telephone.

The key informant interviews were semi-structured and completed in person and over the phone and in one instance, through email. These certification managers; retailers and processors; and producers have unprecedented knowledge of the certification schemes and this knowledge will positively contribute to the study. Furthermore the interviews were targeted and focused directly on the information that was needed to understand the case study (Yin, 2009).

Choosing and Assessing the Case Studies

Preliminary Research:

The research started with an examination of certifications across the world including certifications such as:
<table>
<thead>
<tr>
<th>Market-Driven</th>
<th>Regulatory</th>
<th>Voluntary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-Environmental Measures (E.U.)</td>
<td>Canadian Quality Milk (Canada)</td>
<td>ISO 14001 (International)</td>
</tr>
<tr>
<td>Enviromeat (NZ)</td>
<td>Common Agriculture Program (E.U.)</td>
<td>Environmental Management System (Aus.)</td>
</tr>
<tr>
<td>Food Alliance (U.S.)</td>
<td>Conservation Reserve Program (U.S.)</td>
<td>Environmental Farm Plan (Canada)</td>
</tr>
<tr>
<td>Local Food Plus (Canada)</td>
<td>Minnesota Clean Water Legacy (U.S.)</td>
<td>Rainforest Alliance (South America)</td>
</tr>
<tr>
<td>Bush Tender (Aus.)</td>
<td>Red Tractor Assurance (U.K.)</td>
<td>COLEACP (E.U.)</td>
</tr>
<tr>
<td>GlobalGAP (International)</td>
<td></td>
<td>Smithsonian Migratory Bird Friendly (U.S)</td>
</tr>
</tbody>
</table>

Figure 3: Table of Certifications

These certifications were analyzed for ease of fit into the study; scope; a quick analysis of demonstrated costs and benefits; auditing and compliance measures. From this initial analysis, it was found that certifications were wide and varying across the world and had diverse management styles, marketing and successful attributes.

The case studies chosen needed to be representative to the vastly different sectors of Ontario agriculture to accurately identify the best practices. In order to get the most accurate representation for the study of certifications, researchers tried to select cases and participants from as many different sectors, styles of production, sizes of farms and ages of farmers as possible. Researchers decided they would garner a better feel for certifications by focusing mainly on case studies that were operating in Ontario. By focusing on Ontario certifications, researchers could draw applicable best practices from the analysis that were ensured to be relevant to Ontario because they had already been applied.

Researchers had originally intended to pursue ISO 14001 as the voluntary case study example, but upon further research, it was rejected. Firstly, the researchers could not get contact with ISO or the selected retailer case after several attempts at contact
through different mediums. Secondly, research from the Ontario Federation of Agriculture (OFA) has already concluded that application of ISO 14001 was not applicable to the general farm population due to the time-consuming paperwork and expense (OFA). Thus a different program was selected for the voluntary case study.

Three Ontario case studies were selected: Local Food Plus (LFP) as the market-driven example, Canadian Quality Milk (CQM) as the regulatory example, and Environmental Farm Plan (EFP) as the voluntary example.

These case studies were chosen over the other examples of certifications for several reasons. First, due to these three program’s domestic focus, the certification managers, retailers, processors and farmers were more accessible. As a result of this proximity, the opportunity to visit the farms and speak face-to-face with the farmers was appealing especially in the fluid key informant interview process. By going on-farm as much as possible researchers were able to see the certification in action at the grassroots level. Furthermore, the potential applicability of the best practices that were drawn from the case studies could not be questioned as they were, and are, operating in the Ontario market already.

**Assessment:**

The case studies were analyzed across the value chain. Using this approach, managers of the certification; processors or retailers of the product; and four farmers participating in the certification completed interviews. This allowed the researchers to garner a strong feel for each certification, its belief systems and the benefits and costs. Researchers attempted to cover many sectors in the agricultural industry. Interviews
were completed with Foodland Ontario and the Red Tractor Assurance Scheme in the United Kingdom to supplement information.

**Subjects:**

The interviewees were selected by sector, size, age, location and agreement to complete the interview.

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFP</td>
<td>Dairy Farmers of Canada</td>
</tr>
<tr>
<td>CQM</td>
<td>Ontario Soil and Crop Improvement Association</td>
</tr>
<tr>
<td>EFP</td>
<td>Large-scale processing company who require an EFP to sell to them</td>
</tr>
</tbody>
</table>

### Manager
- Local Food Plus Certification Manager
- Dairy Farmers of Canada
- Ontario Soil and Crop Improvement Association

### Processor/Retailer
- Small-scale retailer
- Large-scale processing facility committed to using 100% Canadian milk
- Large-scale processing company who require an EFP to sell to them

### Farmer 1
- Dairy farmer with additional processing facility
- Medium, tie-stall operation
- Small scale cash crop

### Farmer 2
- Dairy farmer with additional processing facility
- Small, tie-stall operation
- Medium scale dairy producer

### Farmer 3
- Vegetable farmer specializing in tomatoes
- Large, free-stall operation
- Small scale beef and cash crop producer

### Farmer 4
- Medium-scale vegetable farmer
- Medium, tie-stall operation
- Medium scale cash crop and chicken producer

Figure 4: Interviewees

Focusing on three main case studies, it was initially understood that the farmer level would have the majority of differences in opinion. In order to compensate for this diversity, it was decided that more farmers should be interviewed than retailers.

**Limitations of the Study**

The limitations of the study include the fact that no consumers were spoken to directly; instead inferences were made from the literature. Through the literature, researchers gathered that some consumers are becoming more aware of the potential
environmental consequences of farming and food production and are attempting to rectify this through their purchasing decisions. This consumer awareness then becomes a large motivating factor for farmer participation and the success of certifications. It was also inferred that consumers are starting to look for more reassurance and a more personal and direct relationship with those who grow their food.

A further limitation was that many farmers were unwilling to speak to the researchers, and thus data collection at the farm level was difficult. This resulted in a marginally smaller number of farmers being spoken to than desired in the original proposal.
Chapter 4

Case Study Analysis

From the initial analysis of certifications from across the world, three main case studies were chosen: Local Food Plus (LFP) as a market-driven example, Canadian Quality Milk (CQM) as the regulatory example and the Environmental Farm Plan (EFP) as the voluntary example. Two supplementary interviews were completed with Foodland Ontario and Red Tractor Assurance Scheme.

The main case studies were suitable to the research goals as they were domestically created and already being applied in Ontario, which simplified the collection of reliable information. By remaining fluid in the research process, two supplementary interviews were completed with Foodland Ontario and Red Tractor Assurance because they came up in case study analysis from the respondents.

Local Food Plus:

LFP is a non-profit organization that grants certification based on locality to the consumer and compliance with a set of standards. Since being created in 2005, LFP has aided in sourcing local food for the University of Toronto’s major catering companies such as Aramark and Chartwells. Certification with LFP involves farmer’s compliance with a set of mandatory and points-based standards. The standards relating to local production and labour are mandatory requirements for certification with LFP. Farmers must accumulate 75% of the available points from their production practices in order for their operation to meet LFP standards and become certified. Bonus points are available for some practices and can be used in calculating the total
points towards LFP certification, but they are not necessary to achieve LFP certification (LFP, 2011).

In order to become certified, an audit is completed by an independent third party accredited by the International Organic Inspectors Association and who receive additional training in inspecting for LFP standards. After completing the initial inspection and making a recommendation either for or against certification, the inspector submits a report to LFP, which is then sent on to an independent external reviewer. Growers must keep detailed records of all farming activities to verify that approved practices and systems have been used (LFP, 2011).

LFP’s scope is to slow, reduce degradation or make improvements to several key areas including: water, air, soil, biodiversity, and food quality (LFP, 2011).

**Canadian Quality Milk:**

Originally enacted in 1965, *The Milk Act* unified production standards of milk and since 1969 farmers have been required to purchase quota in order to produce milk in the county of Canada (DFC, 2011). The Canadian Dairy Commission, a Crown Corporation, administers the quota system. In the supply-managed milk sector, only enough milk is produced by dairy farmers that is going to be used in the marketplace. The tariff to import fluid milk is extremely high and represents a large barrier to external trade. This system provides the consumer with a steady and sufficient supply of milk in the marketplace (DFO, 2011) (DFC, 2011).

In Ontario, milk production is regulated by the Dairy Farmers of Ontario (DFO), who are a quasi-governmental organization. The DFO represents the 4800 dairy farmers in Ontario who produce 2.5 billion litres of milk annually. Milk is the most
stringently tested product in the Canadian food system and the dairy farms which produce it are tested regularly under the Dairy Farmer’s of Ontario Raw Milk Quality Program. Inspectors from the CFIA and the province ensure that all surfaces and equipment are clean and that milk is cooled efficiently. Inspectors look for Grade A management practices such as: good cow housing, sufficient pasture area and exclusion of milk from cows that are being treated with drugs or antibiotics. Ontario producers who do not consistently meet these regulatory standards are fined and eventually shut-down. Penalties and costs for milk containing contaminants can be as high as $15,000 to the farmer. Further regulation is imposed on milk processing plants, labels and packaging (DFO, 2011).

Canadian Quality Milk (CQM) is a program started by the Dairy Farmers of Canada to match other agricultural industry standards. “It is a Hazard Analysis and Critical Control Points (HACCP) based quality assurance program that is designed to help producers prevent, monitor and reduce food safety risks on their farms” (DFO, 2012). All Canadian dairy farmers are required to pass their CQM to continue milking cows and remain a participant in the industry. Dairy farmers must follow Best Management Practices, set up Standard Operating Procedures (SOPs) and maintain records to demonstrate due diligence (DFO, 2012).

Fluid milk in Canadian grocery stores is most likely produced in Canada due to the high tariffs imposed on imported milk. Processers of milk products that are made exclusively with Canadian milk and Canadian modified milk ingredients can be marked with the “little blue cow” symbol. This symbol is marketed through the media by the Dairy Farmers of Canada and appears on many products destined for consumers. The
little blue cow represents the high standards of Canadian milk and the locality to the consumer (DFC, 2012).

**The Canada-Ontario Environmental Farm Plan:**

The Environmental Farm Plan is a voluntary program administered in Ontario by the Ontario Soil and Crop Improvement Association. The program focuses on 22 areas on the farm to identify environmental strengths and weaknesses.

These areas include:

1. Soil and Site Evaluation
2. Water Wells
3. Pesticide Handling and Storage
4. Fertilizer Handling and Storage
5. Storage of Petroleum Products
6. Treatment of Household Waste
7. On-Farm Storage of Livestock Manure and Other Prescribed Materials
8. Livestock Yards and Outdoor Confinement Areas (OCAs)
9. Silage Storage
10. Milking Centre Washwater
12. Water Efficiency
13. Energy Efficiency
14. Soil Management
15. Nutrient Management in Growing Crops
16. Manure Use and Management
17. Horticultural Production
18. Field Crop Management
19. Pest Management
20. Stream, Ditch and Floodplain Management
21. Wetlands and Wildlife Ponds
22. Woodlands and Wildlife

To complete an EFP, farmers participate in a workshop to recognize the strengths and weaknesses in the identified environmental areas on their farms. Farmers then set realistic goals and timetables to improve or address these problematic conditions. These reports are peer-reviewed by other workshop participants.

The Environmental Farm Plan is cost shared by the Canada-Ontario Farm Stewardship Program (COFSP). COFSP and EFP are funded through the Growing
Forward Best Practices and are supported by Agriculture and Agri-Food Canada (AAFC) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OSCIA, 2011).

The Environmental Farm Plan supports cost share measures, and funding may be available to help producers improve environmental management on their properties by adopting Best Management Practices (BMPs). BMPs are identified to positively contribute to water and air quality, soil productivity, enhanced wildlife habitat, or result in energy conservation (OSCIA, 2011). Each Environmental Farm Plan is site and activity specific and is therefore customized to the individual circumstances of the participant’s farm and the local environment of which it is a part.

While the Environmental Farm Plan is not a certification, it does fit nicely into the research and exemplifies important attributes of a widely adopted voluntary program in Canada. The successful elements of the Environmental Farm Plan are very significant to the research of certifications.

**Foodland Ontario:**

Foodland Ontario is a 35 year-old Ontario government program that promotes fresh and Ontario-grown food. The program uses various media outlets to promote their message such as: commercials, radio, television, social media, appearances, events, media releases and recipes. Foodland Ontario supports Ontario’s producers and the provincial economy, as well as educates consumers on food choices and seasonal products.

In 2007/2008 Foodland Ontario expanded from produce to include meats, cheeses, dairy products, eggs, flour, maple syrup, milk among others. Foodland
Ontario Organic is now an established brand to provide support to organic producers and promote organic crops grown in Ontario (Foodland Ontario, 2010).

Brand management is central to the success of Foodland Ontario. To use the logo, the interested party must sign a licensing agreement, but all of the promotional material is provided to retailers free of charge and can be conveniently ordered off the website (Foodland, 2010).

**Red Tractor Assurance Scheme:**

The Red Tractor Assurance Scheme in the United Kingdom (U.K.) covers most sectors of agricultural production including:

- Poultry
- Pigs
- Beef & Lamb
- Dairy
- Fresh produce
- Cereal crops and oilseeds

A similar scheme, Lion Quality that is separate from Red Tractor, covers production of hens and eggs. The United Kingdom has quality assurance programs for every type of production, of which Red Tractor is the most comprehensive.

The program was created in the 1990s and continues to operate on the basis of a number of key factors:

- That UK trade buyers will impose certain technical specifications on their suppliers
- This was triggered by UK Food Law (*the Food Safety Act, 1990*) that requires a seller must ‘take all reasonable precautions’ to ensure that the food is of marketable quality and safe. This means making enquiries about the standards of suppliers, it is not acceptable simply to rely on a warranty
- In the 1990s, the UK supply chain had a number of serious food crises that gained a very significant media profile.
• At the time the Red Tractor Assurance Scheme was created there was a lack of confidence in regulatory inspections because they had failed to control these problems. The system in place had not been easily adaptable or responsive to modern trade and consumer concerns.
• The risk to producers and processors was that every buyer would develop their own inspection programs against their own technical standards leading to massive duplication of effort and confusion about the preferred standards.
• That a single UK scheme owned by the supply chain would be a more efficient arrangement with every trade buyer able to make use of the outcomes of the inspections in the program.

In the year 2000, the schemes from most agriculture sectors eventually came together under single administration as the Red Tractor scheme to better brand themselves and unify standards.

The UK model for certification of good agricultural practices was borrowed by GlobalGAP and rolled out worldwide and the BRC Global Standard for processing also operates across the world (Personal correspondence, Red Tractor Scheme).

**Cross Case Analysis**

**Local Food Plus:**

<table>
<thead>
<tr>
<th>Private Benefits</th>
<th>Reduce transaction costs for consumers</th>
<th>Usually the hope is that with participation in the program, the farmers will garner a premium for his/her product. This is not always the case and usually only serves a small niche-style market.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Build consumer confidence</td>
<td>The consumer is assured of LFP practices that are easily found on LFP’s website. This can build consumer confidence and assurance in what they are buying.</td>
</tr>
<tr>
<td></td>
<td>Convey additional information</td>
<td>Yes, in order to get consumer recognition, LFP has a label that signifies the farmers' practices and additional information. Accompanying the label is an Internet site that</td>
</tr>
<tr>
<td>Public Benefits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Direct effects on human quality of life</td>
<td>The improvements that are made can potentially have positive environmental effects that can positively contribute to quality of life.</td>
<td></td>
</tr>
<tr>
<td>Ecosystem effects</td>
<td>Usually at least slightly improved to continue in program.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning costs</td>
<td>Increased record-keeping and upgrades to achieve and maintain certifications</td>
</tr>
<tr>
<td>Monitoring and enforcement costs</td>
<td>Increased due to time, record keeping, inspections and the potential for mandatory upgrades to keep certification.</td>
</tr>
<tr>
<td>Compliance costs</td>
<td>Upgrades to maintain certification, annual fees, time spent</td>
</tr>
<tr>
<td>Segregation costs</td>
<td>Yes, product differentiation through the use of the label</td>
</tr>
</tbody>
</table>

Figure 5: Matrix Comparison of Local Food Plus
**Canadian Quality Milk:**

<table>
<thead>
<tr>
<th><strong>Private Benefits</strong></th>
<th><strong>Public Benefits</strong></th>
<th><strong>Costs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce transaction costs for consumers</td>
<td>Reduce free-rider impacts</td>
<td>Planning costs</td>
</tr>
<tr>
<td>Often not, the costs to the government to implement and manage the program are passed onto the consumer or taxpayer, making Canadian milk more expensive than other parts of the world.</td>
<td>Yes due to mandatory compliance</td>
<td>Increased paperwork, upgrades</td>
</tr>
<tr>
<td>Build consumer confidence</td>
<td>Direct effects on human quality of life</td>
<td></td>
</tr>
<tr>
<td>Ensures high quality milk that is backed by the government. Give assurance of Canadian locality as well.</td>
<td>Guarantees a structured system with assured food safety and quality.</td>
<td></td>
</tr>
<tr>
<td>Convey additional information</td>
<td>Ecosystem effects</td>
<td></td>
</tr>
<tr>
<td>Yes, regulatory information is easily searchable via the Internet although the individual CQM Plans are not. Products made with 100% Canadian milk and modified milk ingredients display a government-regulated label.</td>
<td>Potentially improved depending on operation.</td>
<td></td>
</tr>
<tr>
<td>Provide differentiation on international markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQM has a domestic market focus, but it signals quality to international markets because regulations are high and tight.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitate trade by reducing non-tariff barriers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No, CQMs regulations are set high so that little international competition can meet them. Also tariffs are in place for fluid milk imports.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforce and develop trade networks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It reduces the ability to trade both through high standards and high import tariffs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce monitoring and enforcement costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased, government must supply inspectors and outline remedial actions. Enforcement can go all the way to shutting down the operation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Component</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Monitoring and enforcement costs</td>
<td>Increased due to time, inspections and the potential for fines, penalties and mandatory upgrades to keep certification. Higher price for milk to cover costs.</td>
<td></td>
</tr>
<tr>
<td>Compliance costs</td>
<td>Upgrades, potential for penalties if do not conform. Ongoing management upgrades.</td>
<td></td>
</tr>
<tr>
<td>Segregation costs</td>
<td>Yes, product differentiation due to use of label.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6: Matrix Comparison of Canadian Quality Milk

**Environmental Farm Plan:**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce transaction costs for consumers</td>
<td>There is little market recognition for EFP, for a lot of farmers and retailers see it as &quot;the right thing to do&quot;</td>
</tr>
<tr>
<td>Build consumer confidence</td>
<td>With the right branding it could, but education programs are needed.</td>
</tr>
<tr>
<td>Convey additional information</td>
<td>Upon the completion of EFP, the farmer may choose to post a sign stating &quot;This Farm has an Environmental Farm Plan&quot; also retailers or wholesalers may require the farmer to have an EFP to sell to them. But at the consumer purchasing level, often not.</td>
</tr>
<tr>
<td>Provide differentiation on international markets</td>
<td>Again, a domestic market focus, but can provide some differentiation.</td>
</tr>
<tr>
<td>Facilitate trade by reducing non-tariff barriers</td>
<td>Do not reduce NTBs, but do not introduce any new ones.</td>
</tr>
<tr>
<td>Reinforce and develop trade networks</td>
<td>Potentially signaling quality to the purchaser.</td>
</tr>
<tr>
<td>Reduce monitoring and enforcement costs</td>
<td>Little monitoring associated with EFP due to the confidentiality concerns and thus no enforcement costs.</td>
</tr>
<tr>
<td>Reduce free-rider impacts</td>
<td>No because it is voluntary and improvements are voluntary</td>
</tr>
</tbody>
</table>

**Private Benefits**
Direct effects on human quality of life: The improvements that are made on the farm can potentially have positive environmental effects that can positively contribute to quality of life.

Ecosystem effects: A growth in farmer knowledge that could contribute to changes in behaviour that may effect the ecosystem.

Planning costs: One time increase in paperwork, but also takes a lot of time to do research and apply for grants.

Monitoring and enforcement costs: No.

Compliance costs: Potentially increased for optional upgrade matching the weak areas identified in the workshop.

Segregation costs: Potentially, some retailers and processors are using EFP to show due diligence to the consumer.

Figure 6: Matrix Comparison of Environmental Farm Plan

**Individual Case Discussion**

The three different types of certifications all have their strengths and weaknesses. There are many associated advantages and disadvantages of each of the different certifications that certify farms or farm products as environmental. Key stakeholders in the certification process include, but are not limited to: farmers, consumers, retailers, food processors, governments and environmental non-governmental organizations (ENGOs).

**Market-Driven- Local Food Plus Case Study:**

Of the three examples, Local Food Plus was the best model for environmental certification. Farmers had to conform to a set of rules and regulations, and were audited to ensure practices. As a result of fulfilling their obligations, they could then access marketing support and product segregation. But, through research it was found
farmers had the highest dissatisfaction with this certification. Farmers were discontented about the fees that were required, when the fees were required (April, right in planting season), the actual marketing support provided, and the spraying regulations.

Two organic farmers were interviewed who were additionally certified with Local Food Plus provided interesting insight. They felt that their organic certification carried much more weight than LFP, but that LFP was a lot easier to complete and maintain. Further, these producers felt that the paperwork and regulations were minimal stating “Organic certification is four days of hard and intense work annually, Local Food Plus is easy in comparison.” One of these organic farmers was not using the certification mark on the packaging of their product because they were concerned about overwhelming the consumer; they felt that it was cleaner and easier to understand the package without it.

One of the Organic farmers had completed the LFP certification in hopes of gaining additional market share in the food service industry. He personally shared the vision of LFP, but stated that they were not entirely helpful to his already extremely successful business.

The two conventional farmers interviewed stated that “Local Food Plus should just stick to organic.” One of these farmers had originally certified his whole farm with LFP but had to reduce his certification just to one specific crop. This reduction was due to the stringency in spraying regulations as he lost an entire crop because of the regulations placed on spraying. He felt that as a farmer trained and licensed in
pesticide application, he had a better knowledge of what his crop’s needs were than Local Food Plus.

Among farmers, there is a general consensus that LFP was disorganized and slightly out of touch of the day-to-day agricultural practices. One farmer illustrated this, stating that in the spring of 2012, he was to complete his re-certification. LFP had contacted him in early winter 2012 to set up the date, but he had not heard from them again when we spoke in the summer of 2012. He also stated that LFP had asked for the certification fees during planting season when money and time were tight.

The retailer interviewed for the project felt that LFP was minimally recognized and that Foodland Ontario was a much better fit for her. She also stated that consumer recognition of Foodland Ontario was much higher and the consumer felt that Ontario was “local” enough for them. Foodland Ontario’s promotional material for use in the store was free to order and would ship to the business directly. Promotional material from LFP came at an additional cost to the retailer and therefore the retailer used little promotional materials in order to keep costs down.

At the management level, Local Food Plus see themselves as a “way to connect consumers with sustainably-produced food that is not organic” and LFP was originally created because the organic market was stagnant with little growth. LFP feel there is a market for food that is neither organically or conventionally produced but rather follows a set of standards to ensure environmental sustainability in the production process. Yet, when further questioned, management said, “we ideally hope all farmers are moving toward organic.” This demonstrates a disconnect between the branding of LFP; as well
as between management and the farmer, as the conventional farmers the researchers spoke to had no intention of moving toward organic production.

**Regulatory- Canadian Quality Milk Case Study:**

Milk is one of the most stringently tested products in the Canadian market today. Since the Canadian system is supply managed, the system has the ability to impose regulations on dairy farmers. One way the Canadian system is looking to upgrade their standards is to utilize the Canadian Quality Milk program to ensure quality from the farm to the table (DFO, 2012).

Canadian milk already has efficient branding with the “little blue cow symbol” which has existed for over 20 years. The little blue cow represents a product made with 100% Canadian milk and 100% Canadian modified milk ingredients. This symbol is used on processed milk products such as cheese, yogurt and ice cream. The interviewees consistently spoke well of the program and the assurance that they feel it gives the consumer.

At the management level, Dairy Farmers of Canada said that the 100% Canadian milk and “little blue cow” program is to encourage dairy farmers, the Canadian economy and promote supply management. The program also provides a guarantee to the consumer that they are indeed buying a solely Canadian product. The 100% Canadian milk logo grew from a consumer desire to learn more about from where the products they are purchasing are coming from and what is contained within them. Participation in the program is simple; the party who wants to use the logo has to sign a licensing agreement that ensures that they are using 100% Canadian milk and 100% Canadian modified milk ingredients. There is no follow-up or auditing, it is all done in good faith.
The processor that was interviewed for this case study is large in scale and uses a high volume of milk annually. The processor feels they benefit from the free branding and advertising that DFC provides to them and that this brand is growing. They are also assured of one hundred percent of their supply of milk for their processing needs. This is not the cheapest way to operate; frozen desserts can be made with oil or vegetable fat is $1-$2/ kg, where as using butterfat is $4-$5/kg. The processor had purchased his butteroil from New Zealand before signing the licensing agreement with Dairy Farmers of Canada. The processor stated that purchasing dairy products from countries other than Canada is much less expensive. The processor felt that he did not attract a more specialized consumer, but definitely one who was more aware.

Across the board, dairy farmers are, in large part, in favour of the CQM regulations coming into effect, with many stating that they already had similar regulations such as these in their own barns for many years now. They all also felt that the certification assured consumers further of their practices and high quality of Canadian milk. Many of the dairy farmers agreed that Dairy Farmers of Canada needed to better promote supply management and the quality product that they produce. They felt that this had not been properly communicated to the public and that their industry has been looked upon negatively in mainstream media as of late. They all enjoy operating in a supply-managed system that assures them, and the consumer, of a steady price and constant supply of milk.

**Voluntary- Environmental Farm Plan Case Study:**

EFP is not a certification, nor are there any plans from management to move towards a certification model at this time. But, EFP’s wide adoption by Ontario
producers- 70% have completed at least one phase of EFP- makes it a suitable case study to analyze and draw best practices from.

Producers who have completed an Environmental Farm Plan generally rated their experience high. Many felt the knowledge they gained from their participation positively contributed to their operations, and many did indeed change their environmental practices. The producers interviewed identified several key areas for improvement in their EFPs including fencing their animals out of a creek and capping an old well. Farmers stated that they had completed projects related to the identifications made in their EFPs and were working towards others. Many producers spoke to the “priority list” on the farm stating that it was a constant juggling of financial capital, priority projects, and time.

A large processing company who required their growers to have an Environmental Farm Plan was interviewed and provided interesting insight. The company felt that requiring growers to have an EFP was “the right thing to do.” They began this requirement in 2007 and they see it as providing assurance to their customers. The processor stated that sustainability is an emerging issue with consumers and these consumers were beginning to ask questions about practices that are used. The company used EFP as their choice for standards because they viewed it as a complete and made-in-Canada solution that was easy to implement and tailored to each farm. EFP could be implemented independently at the farm level and to each individual locale. It was also noted that there was a level of complexity to the program and the processor liked how it promoted continual improvement to the farm. The
growers now know where they stand, and gained a lot of knowledge through the EFP process to be better used in their operations.

The farmers who were interviewed, in large part, thought that EFP taught them critical information and skills to apply to their operations and environmental management. It also gave them a concrete plan as to what they should be looking to change in the future. Many farmers completed an EFP because they needed an EFP to access grant funding and to expand their operations. With the completion of an Environmental Farm Plan, the farmer is then able to access the cost-share measures.

Some farmers interviewed stated that they were afraid that the government was going to regulate farmers out of business, and when asked if they would complete another stage of the EFP, one farmer replied with a firm no. He stated, “I am a careful and knowledgeable farmer, and there is little incentive for me to complete another Environmental Farm Plan.” The majority of the other farmers also stated that they had little incentive to complete another stage of the EFP and that there is little gained from completing another stage. One stated, “Unless they require me to do another Environmental Farm Plan to access funding, I would not do another one. It seems like the basis of the plan has changed very little since I completed one in 2003.”

**Foodland Ontario:**

Foodland Ontario believes that if consumers are not seeing or hearing about the label, they will not know about it. The dispersion of advertising material and information is crucial to Foodland Ontario’s branding success. This approach has gained Foodland Ontario 94% logo recognition in the Ontario market as per a randomized sample.
consumer study completed annually by Foodland Ontario. They also have 80-90% support from Ontario’s consumers.

This is a government-supported program and Foodland Ontario believes that if they begin to require fees that they will not keep the recognition they have and producers and retailers will stop using the logo. The logo helps with market access and retention, especially for small producers. Management feels that local food is a hot topic and buzz word and will begin to shift the priorities in Foodland Ontario.

**Red Tractor Assurance Scheme:**

The Red Tractor Assurance scheme is primarily about market access, but it was never intended to charge a price premium to the farmer. The issue of price premium is further confused by the fact that, in the UK, certification to Red Tractor standards is now the norm with 80-95% of products in the UK are produced to meet the standards. Today, Red Tractor is the market rather than a niche above the normal market like a certification. In some sectors a non-assured product sells at a discount, but in most sectors non-Red Tractor products represent a small portion of the market and usually only trade in small local markets.

The supply chain- Farm Unions, processors and retailers- own the Red Tractor Assurance scheme and it is operated on a not-for-profit basis. Farm inspection and certification is contracted to commercial Certification Bodies. The farmer must have a certificate to gain market access and use the label. The Certification Bodies (CBs) provide the certification service using the industry’s Red Tractor standards. The farmer pays the CB to be certified, but due to the large number of participants in the UK, certification is efficient and a relatively low cost.
The standards are intended to reflect Good Agricultural Practice (GAP) – including the relevant legislation and any additional requirements that, by a consensus of producers and buyers, are believed to be essential. This scheme ensures that the farmer is operating as "they should be."

In the year 2000 a consumer logo was introduced that is used extensively in the UK to mark product that has come through the assurance program. The intention is primarily to use this as a consumer communication tool to convey information about modern food production, which is often seriously misunderstood. It is not intended to be a niche mark and with the majority of UK production meeting the standards, it could not be a niche market.
Chapter 5

Discussion of the Case Studies

Introduction:

Environmental certifications and agri-environmental programs can differ widely in key areas such as: how they are administered, costs, benefits, farmer buy-in, brand management and consumer recognition. These differences, similarities, negatives and positives can provide issues and benefits to certification management. From the case study examples we can see that there are many ways to operate a certification, it is how the various factors come together holistically that lead to successful and unsuccessful agri-environmental programs.

Analysis:

Most certifications serve to increase consumer confidence, both in the product and in the production system. A certification should be transparent enough that if a consumer would like to complete additional research, he or she can find information readily available detailing what the farmer has undergone to get certified. This ties into the “convey additional information” portion of the framework. A certification and agri-environmental program should be ensuring that a farmer is following a certain set of practices and thus, a consumer can align his/her personal beliefs with the practices that fit their needs. But, an agri-environmental program can further serve to provide the farmer with knowledge to make more informed environmental management decisions on the farm that are in the best interest of the environment.
There are differing opinions among certification participants on whether certifications command a premium in the market and how much this premium can be. A large majority of consumers are focused almost solely on the price of the goods and are not interested or concerned about any additional attributes they may have. Thus, a premium would actually force some consumers away from purchasing the product. Therefore, the certified good must be inexpensive enough to meet consumer needs but expensive enough to cover the farmer’s cost, which can be a delicate balance (Kloppenburg et. al.; 2000). The consumer must perceive a need to buy the product and the certification label must convince the consumers to change their purchasing behaviour.

Certifications and agri-environmental programs do not reduce transaction costs for consumers. At the very least, these transaction costs remain the same or are increased. These larger costs are based on a number of factors such as: a higher quality product, labour costs incurred, planning, record-keeping, and increased expenses associated with the growing and shipping of the product that the supply chain has to garner a return on.

Certification does incur some costs along the supply chain, which are mainly in: planning, organization, paperwork and additional labour. There is always the potential for additional non-compliance costs like penalties or fines if the farmer goes against the certification, especially in a regulatory certification. Farmers often are subjected to the majority of these costs, with the lowest returns. It is the retailers and certification manager’s role to market the certification and they often collect the premium when applicable.
Farmers must often upgrade their practices in order to be granted the certifications, and the regulations can be periodically strengthened in order to make the certification as exclusive as possible (OECD, 1997). The constant improvement of standards is essential to certifications and agri-environmental programs so that there is room for growth and improvement in the future. Without growth and improvement, certifications cannot remain current or cutting edge in the marketplace.

Interestingly, most certifications do not reduce free-rider benefits. Unless all farmers are forced to participate, there will always be a select group in society that reaps the benefits of ecological improvement without contributing to it.

The case studies show that certifications and agri-environmental programs do not reduce non-tariff barriers (NTBs), and in most cases, do not provide differentiation on international markets. Since proximity to the consumer is often a large component of these environmental certifications, certified products are often not exported to provide differentiation, or even contribute, to the international market. Locality is often stressed as being more environmentally friendly because of the associated reduction in fossil fuel use and loss in freshness and nutritional content that is linked to food travelling long distances (Greenwood, 2011). In the case of CQM specifically, import tariffs on fluid milk are high and little milk is exported. In 2010, Canadian dairy trade represented a $383 million trade deficit as the majority of milk and milk products produced in Canada are intended for the domestic market (Government of Canada, 2012).

Certifications can greatly help smaller farmers, who do minimal wholesale trade business, to promote their products in mainly domestic and niche-style markets.
Just as in any other profitable business, farmers and farms are much more likely to participate in a certification scheme which results in an economic benefit. Whether it be from a differentiated product in the marketplace, a higher price point for their products, useful knowledge, or more access to marketing their products, it is essential there be a return on the investments for a farmer taking part in the certification scheme. As shown in the Chapter Four matrix, achieving a price premium is a theoretical solution, but this is not always the case. In this sense, the farmer then must be personally inclined and believe strongly in the certification to foster participation.

Discussion

From the case studies we can find that there are some essential components to a certification that make it more successful than its counterparts. These components or management styles make certifications run more efficiently and improve the agri-environmental programs overall. The following attributes are essential to a certification’s success.

Benefits:

Some type of return on investment or other benefit from participation in the program is an essential component to a certification’s success. Whether it is the ability to access grant money, such as in the case of EFP; continue in a supply-managed industry, such as in the case of CQM, or product segregation, such as in the case of LFP, some benefit is essential. The average farmer has little incentive to participate in a program without some type of return. That being said, there are a select few farmers who will complete programs because these programs align with their personal beliefs.
Some feel that these programs can add to their personal knowledge base, but these farmers are a minority.

Returns from the agri-environmental program or certification are essential as a means to encourage participation and continuation in the certification. For farmers to participate there needs to be a clear linkage between their participation and an improvement to their businesses. But also, if the farmers are not seeing the return membership in an agri-environmental program they will reconsider their participation. This was demonstrated through the research in the case of LFP where one farmer had reduced his participation from whole farm to one specific crop, and another was considering dropping the program all together because he found it was too restrictive. He stated that “…as I am trained and licensed in pesticides, I feel that I can make better spraying decisions than those at Local Food Plus.”

With Environmental Farm Plan, the majority of farmers who had completed a plan were hesitant and unwilling to complete another. They stated that they would not learn anything more as the program has changed little since they did it and they did not have time to participate again.

This concept may seem elementary, but stewardship can be expensive and limiting to farmers and if there is no return, and no impacts on the free-riding competition, the incentives to participate are lessened. This is where regulatory agri-environmental programs do prove to be vital because they ensure compliance of all farmers and even the playing field.
**Farmer Buy-In:**

“Buy-in” is defined for this purpose as the level of commitment and happiness the farmer feels participating in the agri-environmental programs and/or certification. A successful certification has farmers who are committed to the program and happy in their choice to be a part of the program. Conversely, an unsuccessful certification has unhappy farmers who do not speak well of the program. Farmer buy-in articulates the views of the farmer on the management of the certification and the perceived benefits that the farmer feels he or she is reaping from the certification, whether they speak to the issue or not. If “buy-in” is high it demonstrates to the researchers that farmers perceive a benefit from being a part of the certification.

In this study, farmer buy-in was the highest in CQM. This was a surprising result as this is the certification that is regulatory in nature and is mandatory. But, across the board, farmers agreed that this program was the right step forward for the dairy industry. Many said that these standards had been in place in their barns for years anyways and that the upgrades and record-keeping required of CQM would better show the consumer that supply management ensures a high quality product for their consumption.

“Canadian milk standards are some of the highest in the world, so [these regulations] assure consumers that they are buying the best product possible. This can further justify the higher price of Canadian milk and the supply management system- it is just the best milk in the world.” -Farmer

Thus, buy-in was high in CQM and the regulations were perceived as being needed and justified.

Without buy-in, farmers are skeptical of certification management and questioned the legitimacy of the certification. When farmers lack knowledge about or do not
promote the certification, farmers then cannot help brand or advance the certification’s clientele base at the grassroots level.

The regulatory environment under which the farmer currently operates, can greatly affect buy-in. In the case of dairy and Organic farmers, who already exist in a highly regulatory setting, they are more willing to accept further regulation as long as the perceived benefit is present. Smaller, conventional and non-supply managed sectors are more skeptical of certifications and voluntary programs. They often see the imposition of regulations onto them as a waste of time and unwanted government intervention.

Room for Growth and Improvement:

When a certification program stays stagnant for too long, farmers and consumers begin to lose interest. Further, farmers begin to lose sight of how they can upgrade and improve their business if there is not a higher standard for them to be improving towards. This aspect is most prominent in market-driven certifications that are meeting a demand for a more specialized customer, such as Local Food Plus. There is a checklist that a farmer is continually working on to improve his/her business and therefore be constantly improving his/her sustainability and environmental footprint.

This was lacking in Environmental Farm Plan and Red Tractor Assurance. In both of these schemes, the practices had become the “norm” with little room to keep improving or changing. Also, if the practices become the norm in agriculture, the farmer then loses leveraging power in the market as a different and “environmental” product. This combined with the lack of auditing in EFP produces no verifiable assurance that farmers are indeed following up on their practices. This is problematic in terms of a
certification because consumers cannot be held accountable for their practices, but for farmers it makes it appealing (Khanna, 2007).

To ensure growth and improvement, performance monitoring and follow-up are essential. This monitoring can be communicated to stakeholders to assure quality. These components were evident in CQM and LFP where audits were completed at the farm level to ensure practices. This made farmers aware of where their operations could improve, and in some cases initiate, steps to make these advancements. Two-way communication between the farmers and the certification is essential and the certification should be striving to be flexible and respond to farmer issues in a timely manner. A certification with these practices ensures that each unique need of the participant is met, which can increase “buy-in.”

**Consumer Recognition:**

Farmers want to get some credit for what they are doing, and often this credit comes in the way of consumer recognition and appreciation. In a country such as Canada where only 2% of the population is involved directly with agriculture (Agriculture and Agri-Food Canada, 2012), farmers often find themselves on the defensive side of their normal practices, especially in terms of their environmental stewardship. In the case of Environmental Farm Plan, one farmer remarked to me:

“No, I would not want a consumer or an average Joe to be able to read my Environmental Farm Plan, but I do like that I get to put the sign at the end of my driveway for them to see when they drive by. That way they know I am making good environmental decisions”-Farmer

Farmers involved with LFP and retailers selling Local Food Plus certified foods unanimously agreed that consumer recognition was the most lacking element of this
certification. For some, they felt that it wasn’t applicable their business because, as smaller produce farmers, the were often selling on-farm anyways.

“No one comes to the farm and asks for or about Local Food Plus, if they are coming to the farm, they know it is local. What I had hoped LFP was going to do for me was help me to break into more food service and industrial markets, but this has not happened. There may be more consumer recognition in the future, but at present, there is not enough.”-Farmer

“In five years, even when I had advertising material out, I have been asked about LFP maybe once or twice. Foodland Ontario on the other hand, that, consumers recognize and want to buy.” - Retailer

Farmers who do not feel they are getting a return from their participation are less likely to remain or pursue the certification further. But also, recognition that they are making environmentally-friendly choices encourages the farmer to remain in the certification.

From the case studies, Foodland Ontario had the best consumer recognition with 94% of Ontario’s consumers recognizing the brand. Furthermore, these consumers felt that they were making an environmentally sound decision by purchasing their food from Ontario’s producers. But, while the Foodland Ontario brand is well recognized, there is no additional standards other than grown in Ontario attached to the products. While local food can represent environmental-sustainability (Loudan & McRae, 2010), farmers’ practices are not as assured as in other certifications.

**The Values and Costs of Certification**

Certifications have benefits and costs across the value chain. The distribution of these costs and benefits are extremely important to analyzing the success of the certifications. Ideally, a certification would like to see all stakeholders benefitting from participation, but this is not always the case. Farmers can often bear the brunt of the
upgrades and changes to practices, but then see little return from the market. Retailers and processors can see the majority of the benefits from certifications.

Stewardship-based, voluntary, agri-environmental programs like the Environmental Farm Plan can exemplify this unequal distribution of costs and benefits. While farmers can access grant programs from their participation in EFP, they get minimal recognition in the market or from the general public. Since the program is completely voluntary, there is no reduction in free-rider impacts and farmers who refuse to participate in the program reap benefits even though they did not complete the plan. The cost-share plans to help farmers complete environmental projects is such an essential component for farmers participation in EFP, as without this incentive EFP is only a knowledge growth activity.

Retailers can benefit from selling certified products. Because the participating farmers have to make the upgrades and follow the procedures, and because the certification managers usually do the majority of the marketing for the certification, retailers get to then sell the product at a higher price. The retailers should be informed enough to market the certification and encourage consumers to purchase from the certification. Processors also benefit from the certification because they can require growers to participate as a condition for purchase of the product. Then, the processor can market his or her product as having additional attributes, but without the processor himself/herself having to pay for these additional attributes.

The exception to this generality is CQM, Canadian milk and milk products are often heralded as being more expensive than its counterparts in the U.S. and U.K. (Free Your Milk, 2012). Because of this, retailer’s profit margins are smaller and the farmers
pocket more of the income. Conversely, Canadians have a steadier price that is more insulated from market forces and directly support dairy farmers (DFC, 2012). This certification and quality assurance standards that directly translate into a better quality of living for dairy farmers—“If I wasn’t dairy farming, I wouldn’t be farming. I see too many other [agricultural] sectors struggling to want to go into that, I would just have a ‘normal’ job.”

Consumers can both benefit and have additional costs from a certification. Consumers focus on choice, quality, price and safety in making their food purchasing decisions (Higgins, Dibden & Cocklin, 2008). A benefit to the consumer would be that the certified farmers are held accountable for their practices and the certification ensures these practices. Also, certifications convey additional information to the consumers to help them make more informed purchasing decisions. But, a certification can represent a higher cost to the consumer. In the case of CQM, while Canadian milk is some of the highest quality in the world, it is usually more expensive compared to milk in the global market.

**Implications For Agriculture**

**Ontario:**

Arguably, the environmental certification of farms is still a burgeoning market for Ontario’s producers. This market definitely has potential with consumers becoming more environmentally aware and “green.” Producers have shown their commitment to the environment by over 70% of Ontario’s farmers participating in the education portion of EFP, which demonstrates their drive for knowledge. But, EFP is lacking follow-up,
consumer recognition and the ability to grow. This makes getting concrete numbers of project completed and improvements made very hard and thus, demonstration to the consumer that farmers are improving environmentally is virtually non-existent.

Alternatively a program like Local Food Plus should be serving to meet customers demand for environmentally friendly food, but the marketing and consumer recognition just is not there. This lack of recognition puts farmers in the tough position of either remaining in the certification, paying their dues and hoping it will get better, or quitting the certification. There seemed to be a disconnect between the farmer and the management of LFP which further complicates the participation in LFP and can be difficult for the farmer. The lack of available funds or market return from participation also discourages involvement.

The Canadian Quality Milk program is regarded as being good for the farmer, the retailer, but more expensive for the consumer and limits consumer choice. While many farmers have grumbled about the upgrades needed, those spoken to all agree that this is a good thing for the industry. CQM ensures the highest quality milk, good housing procedures and animal welfare with enforceable standards that are accountable and transparent. But a supply-managed system is unlikely to be replicated in today’s market due to the associated trade deficits, limits on the free-market, and related cost to the consumer.

Looking to the future, agriculture should be striving to be constantly improving the industry’s environmental performance and this could be accomplished through certification programs. But encouraging farmers to partake in environmental programs can be a challenge. There is a natural mistrust of the government in Ontario’s
agriculture sector and one farmer expressed his feelings by saying “…the government is going to regulate us out of business” while another stated “I thought [Environmental Farm Plan] was just another wimpy OMAFRA program…” Thus, minimizing government intervention could be a means to encourage farmers to participate.

The program must be funded well for farmers to participate. This funding can be directed at advertising, to make the brand well known, or this funding can be used to cost-share environmental projects on the farm. This encourages farmers to make certification participation a business move and clearly demonstrate the benefits to them from their participation in the program.

There are two main outcomes of the certifications that were studied. Firstly, like the Red Tractor Assurance and Environmental Farm Plan, industry standards were, in general, raised up to the program’s standards. This improves the entire industry and makes environmental consciousness the norm. On the other hand there are programs such as Local Food Plus and Foodland Ontario that serve to segregate a farmer’s products from the competition while remaining exclusive based on standards.

It is very important for those implementing and creating certification programs in Ontario to involve all stakeholders in the formation of the certification so that the resulting certification is representative to all sectors and complements all industry standards already in place.

**Canada:**

In terms of Growing Forward 2, which rolls out in April 2013, the environmental certification of farms is congruent with these future policies. The Growing Forward 2 program is split into three main areas: innovation, competitiveness and market
development - all of which are relevant to environmental certification of farms.

Particularly, the program is said to promote the “continuation of activities to support the development of food safety, biosecurity and traceability standards and systems; and expanded assurance systems support for surveillance systems and market-attribute requirements such as animal welfare and environmental sustainability” (AAFC, 2012). A certification can be national in nature, such as the Environmental Farm Plan has grown to be.

**Recommendations**

For an agri-environmental program or environmental certification of a farm to be successful in the farm community, the research suggests that some key attributes can make it more successful than its counterparts. These key attributes are recommended to be included in a certification in order to make it the best possible choice for farmers to participate:

1. Firstly, the program needs to have defined goals, a vision and have knowledgeable agricultural specialists on staff to make it happen. A disconnect between management and the farmers only serves to drive the farmers away.

2. There should be well-demonstrated benefits to the farmer from participating in the program. Funding may be allocated to marketing and branding to gain more consumer recognition, and a possible price premium, or to cost-share programs to improve environmental management on the farm. This funding must be accessible and the farmers need to see a return on their investment and consumer recognition for their participation.
3. The program should be financially feasible, the government can back the funding, but program implementation should be from outside of the government. Through the interviews, a demonstrated mistrust and wariness of the government was present. To encourage farmers who currently exist outside of a regulatory environment to partake, government intervention should be minimal.

4. There should be a knowledge component to the certification. The farmer should have to complete a short, concise course and a farm review exercise. This will encourage farmer buy-in and make the farmer more aware of potential problems on the farm. The exercise the farmers complete should be confidential to encourage farmers to partake. Many farmers saw this part of EFP as being good for their operations.

5. The program should be audited by a third-party to ensure practices in order to give the consumer accountability and transparency.

6. This accountability and transparency should be attached to a label that conveys additional information to the consumer. There should be an Internet website to legitimize the label and describe the practices.

7. Promotional material including: commercials, radio advertisements, in-store branding and events serve to better promote and garner consumer recognition are very important, such as in the case of Foodland Ontario. This is a component of the certification that is essential to getting consumers to change their purchasing pattern.

8. Furthermore, the farmer should have a road sign to demonstrate to those travelling past the farm that it is certified as a means to spark conversation or spur interest.
9. The program should always have the ability to grow and improve. As more scientific knowledge is learned, and environmental standards increase, so should the certification. This is will keep the market small, specialized and be a benchmark for the industry to strive towards.

10. The program could be included in the Growing Forward 2 program and with national standards; domestic trade could become less complicated.
References:


Hatanaka, Maki; Bain, Carmen; Busch, Lawerence. (2005). “Third-party certification in the global agrifood system.” Food Policy. 30: 354-369


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Appendix One

Interview Questions:

These questionnaires provided a guide for completing the interviews within the selected case studies.

Farmers

1. What is the estimated gross value of your production?
2. What is the economic benefit of certification for access to markets?
   a. Increased access
   b. Retention of market share
3. What percent of sales are from the certification?
   a. 0%, 5%, 10%, 25%, 50%, 75%, 100%, don’t know, n/a
4. How much advantage do you have?
   a. Most 50%, A lot 25%, some 10%, a little 5%, none 0%
5. Effort required? (Time and expenditures)
   a. Paperwork
   b. Changing practices and planning
   c. Increased capital
   d. Increased labour
6. Does certification impact productivity?
   a. Increased
   b. Decreased
   i. If so by how much?
7. What were your drivers to certify?
   a. Increased value for product
   b. Environmental concerns
   c. Product differentiation
   d. Regulatory compliance
8. How would you rate your experience in the certification program
   a. Excellent, Good, Neither good nor bad, bad, horrible
9. Where do you sell the products you produce?
   a. Wholesalers
   b. From the farm directly to consumers
   c. DFO
10. Where do you see certification in the future?

Retailers

1. Ballpark percent of sales certified:
2. What is their interest in selling certified foods?
   a. Increased share, retain share
   b. Attract specialized purchasers
   c. Competition from other retailers
   d. Liability
   e. Public image
3. Do you give preference to sources of food that are certified?
4. Do you pay wholesalers a premium for certified foods?
5. Do you count your premiums from consumers?
6. How widely do consumers seek out certification/assurance?
7. Do you see demand for certified foods
   a. Expanding
   b. Contracting
8. Will it become “normal” in the future?

**Certification Managers**

1. What is required to manage this certification scheme?
   a. Costs?
   b. Staff requirements?
   c. Time?
2. What do they see it requiring of the participants? Costs, expertise, time etc.
3. Primary objectives- environmental protection, market access/retention, quality assurance/liability….
4. Barriers- doing program, management of program, acceptance by others, expansion
5. Opportunities
6. Any documentation
7. How much more expensive is your certified product than a conventionally produced
8. How much of that premium reps the cost of certification
Appendix Two

Email Correspondence to Potential Interview Candidates

Hello (Name),

My name is Dana Bell and I am a Masters student at the University of Guelph. I am completing my thesis on why farmers choose to participate in and the costs and benefits associated with certification and agri-environmental programs. (Name of case study) is one of my case studies.

I was wondering if I could interview you by phone or in person (this would only take 15-20 minutes) regarding your experience with the program. The information from this interview would be used confidentially and anonymously in my thesis.

Looking forward to your response,

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