

Honours Thesis in Environment, Sustainability and Society
Submitted in partial fulfillment of the requirements for
the degree of Bachelor of Science (Combined Honours)

Young Agrarian Culture in Nova Scotia:
The Initial and Ongoing Motivations for Young Farmers from Non-Agricultural Backgrounds

By: Sarah Haalboom

Under the supervision of Dr. Elizabeth Fitting

Dalhousie University
April 2013

Abstract

For Nova Scotia, a province historically characterized by rural communities and family farms, the overhaul of Canadian agriculture to an industrial production model has had major ramifications. Farmers are an aging and shrinking demographic. There is growing support for an alternative food system, focused on re-establishing local capacity for food production. Despite financial constraints, a new generation of young people are pursuing farming in Nova Scotia. This study interviewed eight such individuals from non-farming backgrounds to determine their motivations. Participants described fulfillment attained through a farming lifestyle, including a sense of emotional, personal and social wellbeing. Farming as a livelihood was acknowledged as a risky business decision, requiring several years to become securely established. Having a thriving peer network of farmers and direct marketing to customers were viewed as essential for surviving the early years. Economic viability remains the greatest challenge, and further studies are needed to discuss opportunities for income generation in small-scale farming, to support a sustainable agriculture sector in Nova Scotia.

Table of Contents

| | | |
|-------------|--------------------------|----|
| I. | Introduction | 3 |
| II. | Literature Review | 7 |
| III. | Methodology | 21 |
| IV. | Findings | 24 |
| V. | Discussion | 43 |
| VI. | Conclusion | 50 |
| VII. | References | 52 |

I. Introduction

“The first supermarket supposedly appeared on the American landscape in 1946. That is not very long ago. Until then, where was all the food? Dear folks, the food was in homes, gardens, local fields, and forests. It was near kitchens, near tables, near bedsides. It was in the pantry, the cellar, the backyard.”

– Joel Salatin (farmer and activist)

Nova Scotia agriculture and the farm crisis

Agriculture and the way it is practiced has changed dramatically over the past 50 years (Lyson, 2004). In Canada, the food system has changed more fundamentally than most sectors of society or the economy (Wiebe, 2012). Small-scale family farms which once characterized the rural landscape have been stifled and forced out of operation. Global market forces and limited government intervention have led to take-over of the agricultural sector by multinational corporations, with a profit-driven agenda devoted to ever increasing outputs (Stiles & Cameron, 2009). The global food system now produces unprecedented amounts of food through adoption of new technologies and intensification of farming (Hiranandani, 2010). As demand has increased through population growth and changing diets, so too have the pressures on the food system to produce more and more, at a cheaper and cheaper cost (Roberts, 2008).

Cheap commodity prices are perpetuated by an agricultural system based on an industrial model to maximize yields, but there are many external costs not captured in food prices. These include high social and environmental costs (Hiranandani, 2010; Kenner, 2008). To prevent leveling-off, this model demands higher and higher inputs, including chemical fertilizers and pesticides, expensive infrastructure and equipment, and engineered higher-yielding crop varieties and livestock breeds. Not only do higher inputs demand higher capital investment by farmers, they also degrade the natural resources upon which agriculture relies. The industrial food system is being undermined by these neoliberal philosophies of infinite growth (Lyson, 2004).

Many critiques of this industrial food system have emerged, calling attention to the imminent crisis as the demands of the system outstrip capacity. In his book *The End of Food*, Paul Roberts (2008)

warns that agriculture is entirely dependent upon petroleum from production through to distribution and spikes in oil prices have resulted in volatile food prices and system shocks. Comparing the Food Index measurement of the UN Food and Agriculture Organization and the cost of oil per barrel from the U.S. Energy Information Association reveals an almost exact correlation of food prices to oil prices over the last decade (Kirschenmann, 2012). Globally, agriculture accounts for up to 8% of the world's oil use, and contributes to 32% of greenhouse gas emissions (Hiranandani, 2010). Such heavy reliance makes agriculture extremely vulnerable and precarious in a world after peak-oil (Roberts, 2008).

For Canadian farmers, the global food system has caused the erosion of independence and increasing insecurity. Input costs have risen while the rate of return for farm product sales has fallen, meaning that farmers are experiencing a cost-price squeeze. They must scale-up and specialize production to remain financially viable, or risk going under (Wiebe, 2012). There has been a staggering loss of small-scale farms in Canada, with the rate of exit from the agriculture sector significantly higher than the rate of entry (Pouliot, 2011). In Nova Scotia, the number of people employed in the agricultural sector plunged by 40% in the last thirty years (Scott & Colman, 2008a). These issues are compounded as the farming population ages and fewer young people are replacing retiring farmers. According to the 2011 Census of Agriculture, the average age of farm operators in Nova Scotia is 55 (Statistics Canada, 2011). In addition, the number farmers under age 35 now represent only 7% of the total farming population, and this decline has major implications not only for farmers themselves but also for rural community vitality and food security (Scott & Colman, 2008b).

The inherent contradictions and resulting injustices of a food system based on limitless growth must be addressed through an alternative approach; one which promotes sustainable food networks by taking a holistic view and understanding that the system operates within limits (Brown, 2011). A resilient food system requires both an environmental and social focus, rather than being solely profit-driven (Hiranandani, 2010). This requires ecological practices in order to protect natural assets and eliminate synthetic inputs, but also requires the human capacity to produce enough food for local consumption (Brown, 2011). A healthy farm sector requires farmers!

Scholarly discussion of a revival of small-scale farming indicates that sustainable food networks are emerging and growing throughout North America (Brown, 2011). Yet, as noted by Larch Maxey (2006), there is still “insufficient research exploring the ways such networks are constructed, experienced, and maintained” (p. 233). In his study, “Can we sustain sustainable agriculture? Learning from small-scale producer-suppliers in Canada and the U.K.”, Maxey seeks to address the “often unheard voices and stories” of farmers in shaping the social dimensions of agriculture (Maxey, 2006).

The experiences particular to young farmers has also received limited attention in academic discourse. Young farmers are critical for the revival of the agricultural workforce, but they face significant financial barriers related to start-up and success (Miller, 2010). With an increasing price of fixed assets (i.e. land) and the adoption of more capital intensive practices, the average net worth of a Canadian farm has increased to over one million dollars (Statistics Canada, 2013). In his 2010 paper, “The beginning farmers’ problem in Canada”, Sébastien Pouliot explains that entry into farming has become more difficult because young people do not have the economic means to purchase farm enterprises and aging farmers cannot afford to sell their farms below cost. Succession planning has been a key area of focus, but government support programs for intergenerational farm transfers exclude aspiring farmers who do not come from farming families (Miller, 2010).

The large majority of farmers in Canada today were themselves raised on a farm, including 87% of all female farmers and 71% of all male farmers (Scott & Colman, 2008b). Along with access to start-up support, people from farming backgrounds are often better-equipped to continue with farming due to exposure from an early age and many years of experience. In addition, these young farmers have a valuable source of knowledge in their parents, and perhaps most importantly they have a sense of commitment and belonging to the cultural heritage of a farming lifestyle (Scott & Colman, 2008b).

Nonetheless, anecdotal evidence is bringing awareness of a new generation of people going “back-to-the-land”. These are young people without farming roots who are establishing themselves as farmers in innovative ways through renewed focus on the importance of small-scale farming and local community connections. They are inspired to embrace farming as a way of life despite challenges and

trends of opposition. In what ways has this new generation managed to overcome the odds and make the commitment to farm? What continues to motivate them to keep farming day in and day out?

Purpose of this study

This study explores these questions in the context of young, beginning farmers in Nova Scotia. Here, community-based agriculture and local food movements appear to be gaining momentum, and Nova Scotia was the only province in Canada to actually see an increase (by 2.9%) in the total number of farms between 2006 and 2011, when all other provinces saw a decline (Statistics Canada, 2011). These are positive signs for Nova Scotia, but how do they translate to the experiences of young farmers on the ground? This study seeks to better understand why young people are attracted to enter the agricultural sector in Nova Scotia, what challenges they face in pursuing farming, and what they hope to gain from being a farmer.

Research question

The research question is, “what are the motivations of young, beginning farmers in Nova Scotia to pursue farming despite not having an agricultural upbringing?” Research consisted of one-on-one, in depth interviews with eight young farmers, currently operating farms all around Nova Scotia. All participants were between the ages of 18 and 40 (the age range used by Agriculture and Agri-Food Canada to identify “young farmers”), from non-farming backgrounds. This study aims to benefit the agricultural community in Nova Scotia as a whole, by providing insight into why young people are choosing to pursue farming, and what support can be provided to help them be successful.

II. Literature Review

Globalizing food systems

The post-World War II era has been the most transformative time in human history in terms of meeting the fundamental need for food (Kenner, 2008; Lyson, 2004). Globalization, or the intensifying interconnectedness of the world, has been a vector for this transformation. In order to meet the needs of the growing global population and the demands of more affluent consumers, a global food system has emerged and proliferated (Roberts, 2008). Technological advancements and continual research and development in agriculture has led to unprecedented levels of food production (Hiranandani, 2010). This technical-based approach is characterized by mechanized agricultural practices requiring high inputs to maximize efficiency of the system.

Neoliberal market reforms have allowed for control of the global food system by large corporate interests dedicated to this virtue of efficiency – minimizing labour expended per volume of food produced (Wiebe, 2012). Through consolidation and specialization, farming operations are scaling up in size and increasingly being concentrated in the hands of few (Stiles & Cameron, 2009; Kenner, 2008). Monoculture cropping methods and concentrated animal feeding operations (CAFOs), employ a factory model of mass-production to drive down the cost of food production and increase profit margins. Food products are now transported over farther and farther distances to reach a higher number of consumers. Grocery store shelves are lined with cheap commodities sourced from all over the globe (Kenner, 2008; Lyson, 2004).

Cheap food prices fail to capture the hidden costs of production associated with the industrial food complex; externalities which have high environmental and social costs (Roberts, 2008). Agriculture is no longer about husbandry, and the agrarian landscape has become an industrial landscape through intensifying production methods and mechanization (Gillespie & Johnson, 2005). The high input requirements of the food system are outstripping the capacities of the natural system upon which it relies (Kirschenmann, 2005). As such, technical fixes call for higher and higher levels of chemical fertilizer

and pesticide application, which degrade soils, water and air quality (Kenner 2008; Lyson 2004). Food is now being engineered to produce higher and higher yields. Widespread cultivation of genetically modified (GM) crops is drastically reducing biodiversity, and choking-out heritage varieties and native species (Kenner, 2008).

Industrial agriculture relies heavily on petroleum inputs, using up to 8% of the world's oil and contributing up to 32% of global greenhouse gas emissions (Hiranandani, 2010). The food system is extremely vulnerable to price shocks caused by spikes in the cost of oil (Kenner, 2008). The volatility of commodity prices has intensified issues of equity and food distribution within the system, where nearly one billion people in the world are suffering from hunger and under-nourishment, while an additional one billion people are obese (Roberts, 2008). Access to healthy and nutritious food has become a political issue and a matter of national security agendas. Incidents of food safety concerns in the form of contamination and disease outbreaks are on the rise, with widespread social ramifications due to inability to source and trace the origins of products shipped and dispersed through deregulated global markets (Kenner, 2008; Roberts, 2008).

Consumer wellbeing is not the only social impact of the industrial food system. Farmers must now compete in the global market in order maintain their livelihood and small-scale producers all over the world are being forced out of production. In North America, family farms which were once the backbone of rural society are disappearing at an alarming rate (Stiles & Cameron, 2009; Lyson, 2004). Those that have expanded operation in order to survive financially are pressured into contractual agreements under powerful corporate agents (Pouliot, 2011; Stiles & Cameron, 2009). The transformation of the rural landscape and social degeneration that have ensued cannot be understated. Food systems, despite intentions to provide for citizens, have unintentional consequences which are ultimately weakening the fabric of society as a whole, and stripping food producers of autonomy (Stiles & Cameron 2009; Maxey 2006).

The food system in the Canadian context

The agriculture sector in Canada is a major component of the nation's economy, contributing 12% of the GDP in 2004 (Hiranandani, 2010). Yet, Canada's agriculture sector is facing major challenges that are not being addressed by current government policy. Canadian scholar, activist and politician Nettie Wiebe criticizes farm policy changes which have led to a farm crisis in the country. According to Wiebe (2012), "ensuring that Canadians enjoy food security, that farmers prosper, and that food-producing resources are protected and enhanced may figure as subsidiary interests in agriculture policy, but they are overridden by the primary goal of increasing production, global market share, and trade" (p.160). Beginning in the 1980s, market reforms have enabled the Canadian agricultural sector to become dominated by large agribusinesses, with limited government intervention (Stiles & Cameron, 2009). The failure of the government to regulate the industry facilitated the introduction of the North American Free Trade Agreement (NAFTA) in 1994 and the WTO Agreement on Agriculture in 1995, securing market dominance for large-scale production enterprises and forcing family farms out of business (Wiebe, 2012). The largest farms in Canada – those with over \$1 million in annual revenue – account for only 3% of all farms, but produce 40% of all food (Wiebe, 2012).

By 2011, the average size of a Canadian farm had grown to 778 acres (Statistics Canada, 2011). Adopting economies of scale is seen as a necessity for survival (Miller, 2010), with transition to industrial production techniques demanding standardization (Wiebe, 2012). A dramatic example of specialization and intensification of farming practices can be seen in the Canadian hog industry, which in 1971 comprised over 100,000 farms, with an average of 66 pigs per farm, but by 2001 included only 15,000 hog farms, with an average of 900 pigs each (Agriculture and Agri-Food Canada, 2006). The agriculture sector as a whole experienced a total loss of half of all Canadian farms between 1961 and 2001, from 500,000 to 250,000 (AAFC, 2006).

Fewer numbers of farmers has led to a loss in negotiating and leveraging power to influence government decisions that affect individual producers (Miller, 2010). Despite the report by Agriculture

and Agri-Food Canada that 98% of farms remain family owned, autonomy of these farms must be called into question as about 25% of family farms changed from sole-proprietorship to corporate partnerships and contractual agreements from 1981-2001 (AAFC, 2006). The voices of Canadian farmers are being silenced as farms become consolidated and subject to control by major agribusinesses.

Farming is no longer seen as a viable livelihood, and Canadian farmers are struggling to make a living. Farming is more capital intensive, requiring higher input investments in order to see any financial return on outputs. In addition, farmers are receiving a smaller and smaller proportion of the overall food dollar as farm gate prices decline (Pouliot, 2011). Government reports highlight a rise in gross farm receipts, a GDP-based indicator that sends misleading signals and obscures increases in the costs of farming, according to Scott and Colman (2008a). In their report “Economic viability of farms and farm communities in Nova Scotia and Prince Edward Island” these authors suggest that policy makers must examine net farm income, the expense to income ratio, and total farm debt in order to gain a more accurate understanding of the economic viability of Canadian farms (Scott & Colman, 2008a).

Examining these statistics depicts an agricultural sector that is not financially sustainable (Pouliot, 2011; Scott & Colman, 2008a). In the last 25 years, the gross revenue from Canadian farms was \$723 billion, but net farm income was less than zero – all of the money generated as gross revenue was captured by agribusiness transnational corporations, while farmers themselves were sunk farther into debt (Wiebe, 2012).

Another challenge within the Canadian agriculture sector revolves around regeneration. Farmers are an aging demographic; according to the 2011 Census of Agriculture, the average age of farm operators has now risen to 55 years old (Statistics Canada, 2011). Fewer and fewer new entrants are joining the agriculture work force (Miller, 2010). There exist many barriers to entry into the agriculture sector, with access to capital recognized as one of the most significant (Pouliot, 2011; Miller, 2010; Stiles & Cameron, 2009). The capacity to replace aging farmers is unfeasible as young, aspiring farmers do not have the collateral to acquire loans and finance a farm start-up or purchase (Pouliot, 2011). How can the future of agriculture be guaranteed if retiring farmers are not being replaced?

Much of the food production in Canada is for export rather than localized consumption (Stiles & Cameron, 2009) and food imports far exceed national population growth. In the fifteen year period preceding 2006, food imports into Canada increased by 160% while the population only increased by 15% (Hellmann's Real Food Movement, 2009). As more of the food being eaten by Canadians is coming from other countries, there is a growing disconnect between consumers and producers (Miller, 2010). This disconnect has further exacerbated financial instability for Canadian farmers, who must be price-takers in the global system where domestic markets are flooded with cheap, foreign commodities (Miller, 2010). Examining the agriculture sector in Canada reveals a system in crisis (Wiebe, 2012; Stiles & Cameron, 2009). In the last few decades there has been increasing momentum behind the call for an alternative approach to address the systemic issues of the industrial food complex in Canada.

Alternative food movements

In his 2004 book *Civic Agriculture*, Thomas A. Lyson presents a counter trend to conventional agriculture in which consumers are reconnected to the source of their food through localized production and distribution. This renewed cohesion fosters a more sustainable system that benefits both economic and social community development (Lyson, 2004). The civic model relates to Vanmala Hiranandani's discussion of sustainable agriculture in Canada, in her 2010 article published by the journal *Environment, Development and Sustainability*. Hiranandani explains sustainable agriculture as a multifunctional approach contributing to various public goods, rather than producing food for the sole purpose of turning a profit (Hiranandani, 2010). Sustainable agriculture manifests in a variety of ways due to the conceptual understanding of "sustainability" being without precise definition (Hiranandani, 2010; Maxey, 2006). Hiranandani draws on the definition provided by Pretty (2002) to describe farming practices that embody the principles of sustainability as those which "maximize the productivity of the land while seeking to minimize damage to both the valued natural assets (soils, water, air and biodiversity) and to human health (farmers and other rural people, and consumers)" (Pretty, 2002 as quoted by Hiranandani, 2010, p. 764). This includes, but is not limited to, ecological based practices such as water harvesting, soil conservation,

rotational grazing, crop rotation, composting, integrated pest management, polyculture, and organic farming (Hiranandani, 2010).

Sustainable farming practices must be considered within the broader scope of what Maxey (2006) calls “sustainable food networks”. Like Lyson’s civic agriculture model, sustainable food networks are presented as a way of forging closer linkages between consumers and producers through direct marketing and local consumption. The establishment and growth of initiatives such as farmers’ markets, community supported agriculture schemes (CSAs), and food co-operative arrangements (co-ops) provide evidence that civic agriculture and more sustainable food networks are emerging within Canada (Maxey, 2006). Benefits of these alternative food networks include: “greater food democracy, reduced environmental impact associated with food, healthier food and circulating wealth more efficiently within local economies” (Maxey, 2006, p. 233).

Hiranandani (2010) maintains that Canadian farmers are world leaders in terms of direct marketing strategies such as farmers’ markets, CSAs and co-ops. Indeed, there are many positive signs in Canada of citizens re-engaging with the food system and voicing concern about the source of their food; concerns such as where it is coming from and how it is being grown (Hiranandani, 2010; Miller, 2010; Stiles & Cameron, 2009; Maxey, 2006; Gillespie & Johnson, 2005). This renewed public awareness is resonating through the growing prevalence of more ethical, healthy, and local food options. However, popularity alone cannot facilitate the paradigm shift required to truly adopt a more sustainable and locally-based food network. In her 2011 book, *Back to the land: The enduring dream of self-sufficiency in modern America*, Dona Brown suggests that meeting the demands of the “locavore” movement can only be achieved if the number of farms within a particular region increases rapidly to supply and market these sought-after products. Scott and Colman (2008b) make a parallel argument to address this demand for local food in their most recent report, “Towards a healthy farm and food system: Indicators of genuine progress Atlantic Canada”. The authors state:

We need the resource base – the land, the soil, the biodiversity. We need the economic capacity. But we also need the human capacity and willingness to farm; the relationships among farmers

and between farmers and consumers that make production and distribution of food possible; and the community infrastructure that makes farming viable (Scott & Colman, 2008b, p. *ii*).

Scott and Colman have developed a threshold theory they deem necessary to build bridges between farm and non-farm populations, and caution that if farmers diminish in numbers below a certain level, the general population will increasingly lose contact and becoming disengaged with their source of food (Scott & Colman, 2008b). Scott and Colman focus on the human and social dimensions of agriculture essential for creating sustainable local food networks; an area of research which is noted to be largely unexplored and poorly understood (Maxey, 2006). Within the few studies to date, one theme that has arisen is the importance of support for small-scale farmers (Brown, 2011; Hiranandani, 2010; Miller, 2010; Stiles & Cameron, 2009; Scott & Colman, 2008; Maxey, 2006; Gillespie & Johnson, 2005; Lyson, 2004). Small-scale farmers are acknowledged as being “bastions of environmental stewardship” throughout history (Hiranandani, 2010, p. 772), by employing practices that promote ecological well-being indicated by soil and water quality, healthy and productive livestock, biodiversity, and harnessing natural inputs for ecological efficiency (Scott & Colman, 2008b). Independent land ownership instills values of responsibility for the natural resource base while also encouraging restoration for long-term productivity (Cabell, 2012).

Small-scale farms are a vital component of vibrant rural communities. Localized economic development is generated by smaller farms reinvesting money in the community and purchasing a higher proportion of goods locally compared to large farm enterprises (Scott & Colman, 2008a). Rural economies are further strengthened through the capacity of farming to concentrate wealth, create jobs, and encourage entrepreneurship (Lyson, 2004). A well-integrated agriculture and business sector buffers communities from shocks and stresses induced by the global industrial food system (Scott & Colman, 2008b; Lyson 2004), and prevents rural out-migration (Hiranandani, 2010). Therefore, small family farms serve as a cultural symbol of independence and self-reliance, and empower rural communities to thrive and be resilient (Cabell, 2012; Lyson, 2004).

Along with contributing to the vitality of the rural landscape, Miller (2010) notes that small agriculture operations allow younger farmers to start a career. Entry into farming has become more difficult especially for young people because they must secure greater financial resources (Pouliot, 2011). According to Gillespie and Jonson in their 2005 report to the Rural Sociological Society, this results in “a context that is not conducive to start-ups by would-be farmers of modest means” (Gillespie & Johnson, 2005, p. 2). Therefore, prospective farmers require start-ups with lower investment costs, and investing in a smaller operation provides such an options.

Wiebe (2012) asserts that “the restoration, re-invigoration and re-invention of small-scale family farming is at the crux of the solutions to many of the ecological, health, and social ills of our current food system” (p. 167). Further, it is argued that current federal policies which are national in scope have failed to remediate the loss of small farms, and comprehensive solutions to these challenges will only be reached by examination on a more regional scale (Stiles & Cameron, 2009). This call for a regionally-based approach to the interconnection of the farming sector and community development is echoed by Miller (2010), stating that national programs are currently not designed to address the strong regional differences within agriculture in Canada. As such, this research study will look specifically at Nova Scotia in order to discuss these issues and gain insight into the sustainable food networks that appear to be manifesting within the provincial context.

Sustainable food networks in Nova Scotia

Stiles and Cameron (2009) examined the agriculture sector in Nova Scotia in terms of Lyson’s civic agriculture model in their article “Changing paradigms? Rural communities, agriculture, and corporate and civic models of development in Atlantic Canada”. The authors concluded that while there are hopeful signs of resistance to the industrial regime in the form of community-based agriculture, a corporate rather than civic model dominates agriculture in this region. Nova Scotia’s agriculture sector is strongly influenced by global markets and federal policies which do not protect individual producers from

vulnerability, and result in the “marginalization of the region’s agricultural producers and hardships for the rural communities in which this agriculture was practiced” (Stiles & Cameron, 2009, p. 348).

Today, Nova Scotia does not have the capacity to grow all of its own food. Fewer than 4,000 farms remain scattered throughout the province today, compared to historical counts of 50,000 farms a century ago (Scott & Colman, 2008b). Traditional family farms have not survived; hurt disproportionately by market reforms which create pronounced regional disparities (Stiles & Cameron, 2009). According to Dalhousie University scholar Kregg Hetherington, “since the 1950s there has been an exceptionally high level of corporate concentration in the input machinery, processing, distribution and retailing sectors of Maritime food chains” controlled by companies like Sobeys, McCain, and Irving (Hetherington, 2005, p. 38).

As the economic viability of farming in Nova Scotia continues to trend sharply downwards, farming as a livelihood is increasingly endangered (Scott & Colman, 2008a). Since 1971, net farm income has dropped by 91% in Nova Scotia and farmers simply can no longer afford to farm (Scott & Colman, 2008a). Due to these economic forces, there is a high rate of job loss in the agriculture sector in Nova Scotia; down 40 percent in the last three decades (Scott & Colman, 2008b). Coupled with an aging farmer population, the need has never been greater for new entrants to revive agriculture in Nova Scotia and protect against the deepening adverse effects of the farm crisis.

Nova Scotia is now at a critical crossroads, with evidence of a new awareness of the need to support local farmers, shared by both the public and the government (Scott & Colman, 2008a). Historically, Nova Scotia embodied many of the features of a sustainable, civic agriculture model, in which the government exercised power to protect farmers from being undermined by “big business” for privatization of public infrastructure and resource access (Scott & Colman, 2008b). Stiles and Cameron (2009) highlight additional traits that Nova Scotia has been noted for, historically and today, which promote community-based development through social integration and greater self-reliance. These include “the importance of participatory democracy, the values of localism, small-group dynamics, cooperative philosophy, and grass-roots activism” (Stiles & Cameron, 2009, p. 346).

Evidence of community-based initiatives such as farmers' markets, CSAs, and co-ops are sprouting and spreading across the province suggests a similar phenomenon occurring in Nova Scotia as is described in other areas such as Ontario (Maxey, 2006) and the American northeast (Gillespie & Johnson, 2005; Johnson et al., 2001). In fact, Nova Scotia is said to have the highest number of farmers' markets per capita of any province (Moscovitch, 2012). "Select Nova Scotia" is a recently launched government campaign that advertises and supports local food production and consumption throughout the province (Select Nova Scotia, n.d.). Their website includes an interactive map database that allows people to discover the location of Nova Scotia's producers and direct marketing schemes, as well as the different types of products available. A search for "CSAs" reveals 21 farms, along with a link to each one providing further information (Select Nova Scotia, n.d.).

Another hopeful sign for Nova Scotia is an increase by 2.9% in the total number of farms between the 2006 and 2011 Census of Agriculture (Statistics Canada, 2011). While this may be very small increase, the fact that there was any increase at all is significant, because every other province experienced a decline. Why are new farms popping-up around the Nova Scotia? Through his ethnographic work focusing on farmers in Nova Scotia, Hetherington suggests attraction to the province arises because of the "cheapness of the land and relative isolation from highly developed areas" (Hetherington, 2005, p. 27).

Statistics reporting on farm operator data are not so promising for Nova Scotia. Now, only 7% of all farm operators are under age 35; this is the lowest level in history, and indicates a serious decline in the capacity for renewal in farming (Scott & Colman, 2008b). Renewal, as addressed by Scott and Colman, is "concerned with the sustainability of agriculture over time [...] in order to have a thriving agriculture sector in the long term" (p. 70-71). This includes generating human capital for farming by passing on farms from one generation to the next, the willingness within young people to go into farming, and knowledge transfer from experienced farmers to newer farmers (Scott & Colman, 2008b).

It is important to note that the involvement of young people in farming is not fully captured by examining only farm operator data in the Census, as this does not reflect other types of farm employees or

volunteers (Scott & Colman, 2008b). The 2010 report to the government of Canada, “Young Farmers: The Future of Agriculture”, makes the recommendation for Statistics Canada to establish a profile of young farmers in the Census of Agriculture, to address the lack of information regarding numbers, locations, size, scope, and types of young people engaged in farming (Miller, 2010). This research study examines renewal from the perspectives of young farmers themselves involved in farming within Nova Scotia to provide insight into the long term sustainability of agriculture in the province.

Young farmers and motivations for farming

Trends of decline in Nova Scotia’s agriculture sector and an unforgiving economic outlook are barriers to regenerating the workforce. Young people are further barred from entry into farming due to a lack of policies, programs, and services targeting young and inexperienced farmers (Miller, 2010). Most telling is the fact that Canada’s main agriculture policy, the “Growing Forward” framework agreement completely omits young farmers and the need for new recruits to replace aging farmers (Miller, 2010). In their comprehensive study of new farmers in the northeastern United States, Johnson *et al* (2001) state that farming as a profession is overshadowed by the weakening state of the farm economy, and until this situation is addressed, people will be unable to enter and succeed in farming. Increasingly, financial constraints require more innovative business planning and marketing skills, and reliance on off-farm employment to provide both adequate income and security of health insurance and retirement benefits (Gillespie & Johnson, 2005).

Scott and Colman indicate that the drop in number of farmers is a major barrier for entry in and of itself. This is based on the concept of knowledge transfer, in which older and established farmers are essential for teaching the next generation. This feedback loop is surmised in the following quote: “there will be a significantly smaller pool of people taking up farming as the farming population declines” (Scott & Colman, 2008b, p. 75). Even so, evidence from informal sources suggests that in fact there are a growing number of people becoming involved in agriculture and taking up farming in Canada and Nova Scotia, but this new trend has not yet been quantified through academic research. Also lacking is

scholarly attention given to the social dimensions of emerging agriculture networks and how they are playing out on the ground, such as the motives, experiences, and concerns of producers (Maxey, 2006).

In an attempt to address this gap, Johnson and colleagues (2001) prepared a report for the Northeast New Farmer Network based on responses from focus group sessions with prospective and beginning farmers in the northeastern United States. The authors aimed to create a typology of new farmers in order to guide more effective service and program delivery. The report concluded that there existed a need to characterize farmers based on both their starting point, including background and expertise plus current assets and resources, as well as based on their long-term vision, including livelihood aspirations plus farm operation and enterprise goals (Johnson et al., 2001). The focus group sessions revealed that young farmers who come from a farming background transitioned from the beginning farmer phase to fully-established farmers much more quickly than those who had no experience with agriculture growing up; and thus appeared better prepared to survive the difficult start-up period (Johnson et al., 2001).

The conclusions of Johnson *et al* (2001) relate to the theory of renewal. The majority of people currently farming in Canada were themselves raised on a farm, including 71% of female farmers and 87% of male farmers (Scott & Colman, 2008b). In addition, young people are more likely to take up farming if they feel they have a meaningful role in management and decision making, which instills a sense of heritage and inner-commitment to the continuation of their family farm (Scott & Colman, 2008b). As such, on-the-farm learning is invaluable for the regeneration of agriculture and farm succession (Scott & Colman, 2008b).

These findings prompt further investigation into the extent to which young people from non-farming backgrounds are entering the agriculture sector. Without a sense of commitment and family tradition, why would young people chose to become farmers? In Nova Scotia, farming is not seen as a viable career choice financially, and labour sector jobs requiring a similar skill set offer a much higher rate of pay (Stiles & Cameron, 2009). Despite all this, young people who do not have family ties to agriculture aspire to become farmers and are pursuing these dreams.

Dona Brown (2011) has presented the theory that in America, the resurgence of people establishing themselves as farmers represent a new wave of the “back-to-the-land” movement, and a “new enthusiasm for locally produced food and more sustainable energy paths” (Brown, 2011, p. 233). This resurgence comes from the motivation to actively participate in the creation of food systems that are socially equitable with a reduced environmental footprint. Small-scale farming using ecological practices provides spiritual fulfillment and fosters a deeper connection to the land. The most enduring force sustaining the back-to-the-land movement is rooted in “producerism”, or ensuring the preservation of “artisanal skill, personal autonomy, and household self-sufficiency in a rising tide of mechanization, monopoly, and consumerism” (Brown, 2011, p. 5). The stories of young, beginning farmers in Georgia as shown in the documentary film “GROW!” re-emphasize the motivations behind this movement, initially based on idealism; the desire to feed people and grow food with honesty and integrity, while participating in the cycles of nature (Anthony & Masterson, 2011). The subjects of the film self-identify as a “new breed of farmers”; involved in an activism for a way of life that is endangered (Anthony & Masterson, 2011).

In 2000, Kregg Hetherington set-out on a yearlong ethnographic study to discover what it is that draws people to become organic farmers in Nova Scotia, suggesting that growers come as “ideological migrants”, seeking community and longing for the local. Nova Scotia appears to offer promise of traditional farming communities, yet Hetherington underscores that a high proportion of organic farmers become disillusioned within their first few years, when their ideological motivations are called into question; “organic growers in Nova Scotia are subject to, on average, a five-year trial period, at the end of which economic, social, and personal factors make them ‘wake-up’ and face some hard decisions” (Hetherington, 2005, p. 93). Johnson *et al* (2001) and Maxey (2006) also highlight the concept of a critical start-up period for new farmers, when survival of the farm is called into question, thus requiring re-strategizing and modification of their farming vision. Hetherington perceives that a wake-up call results from the realization and eventual acceptance that the organic community is removed both spatially

and conceptually from the local community in which growers find themselves – their values and ideals are not reflected within those sharing their direct environments (Hetherington, 2005).

As described by Brown, it would appear that in many regions across North America, small-scale farming no longer requires a “go it alone” mentality, as more people are becoming involved and a peer network of farmers is expanding (Brown, 2011). This network is essential to the success and continuation of individual farmers (Gillespie & Johnson, 2005). In the decade since Hetherington’s work, has the provincial landscape changed in terms of success for new farmers in Nova Scotia? Do they continue to feel isolated, or are they able to forge relationships in their local surroundings and the wider farming community?

This study seeks to explore the farmer network in Nova Scotia to gain a better understanding of what helps draw farmers together and forge links between them. In particular, this study will focus on the perspectives of young farmers within the province who do not have an agricultural background, who appear to be growing in numbers. As such, this study will provide novel insight into the experiences of a new generation of farmers in Nova Scotia.

III. Methodology

The research was conducted through in-depth, one-on-one interviews with eight participants in order to provide better understanding of why young people chose to become farmers in Nova Scotia. Data collection in this manner allows for individual experiences and perspectives to be explored, to give a sense of diversity and enable discussion of particular responses, rather than to make generalized and apply them to another context. Participants were recruited based on the following criteria: 1) they must fall into the age range of 18-40 years old, as this is the age group considered by Agriculture and Agri-Food Canada to be young farmers; 2) they must be currently farming, as the primary operator on the farm, and 3) the farm must be within Nova Scotia. Exclusion criteria for the study included farmers participating in urban agriculture, and farmers who had an agricultural upbringing. Anyone who grew up on an operational farm was not able to take part in the study. Of the eight participants, seven are currently farming in Nova Scotia, while one self-identifies as an aspiring farmer and can be considered a key informant as she is currently working within the Maritime agriculture sector in a service-provider role.

Based on the logic described by Crouch and McKenzie (2006) for determining sample size in interview-based qualitative research, recruiting eight participants is sufficient due to both the qualitative methods employed and the small-scale of the project. Recruitment was primarily advertising through ThinkFARM and Perennia. ThinkFARM is an initiative of the Nova Scotia Department of Agriculture to support aspiring, beginning, and transitioning farmers; and Perennia is a crown corporation providing agricultural extension and development services to farmers in Nova Scotia. All respondents to the recruitment call were invited to participate, and of those invited; only one did not end up taking part in an interview as the goal sample size had already been reached.

The interviews generally lasted one hour, and took place either in person or over the phone. The interview began with general questions about each farmer's current farming operation and their background related to agriculture. Then more open-ended questions were asked about why they were

attracted to farming, challenges associated with starting-up, and the long-term vision of every individual. Additional questions were used as a prompt when necessary to encourage more in-depth answers.

With permission, all interviews were recorded. The recordings were then transcribed and analyzed using an approach based on the chapter “Qualitative Data Analysis” found in *How It’s Done: An Invitation to Social Research* by Stier Adler and Clark (1999). Following this approach, the first stage of analysis began by coding the data – the interview transcripts. Coding refers to reading through the transcripts and associating words or labels with passages in the transcripts. The coding frames were emergent and not predetermined at the outset of the data collection. It was the goal of the research to look at both surface content and to make sense of deeper meanings within the text.

The sequential process of coding was informed by consulting Lincoln and Guba, (1985). Unitizing occurred first, involving assigning codes and grouping similar concepts together based on the codes from all interview transcripts. Categorizing followed, in which the codes were assessed to determine themes and how these themes relate. The final stage of coding is referred to by Lincoln and Guba as “delimiting construction”; in this stage, theories were developed based on the codes, and used to determine related theories from the literature (Lincoln & Guba, 1985).

As such, the methodology employed was an inductive approach to allow building of theory from the data (Berg, 2001). The study aimed to draw theories from the responses themselves, rather than apply any single existing theory to describe the motivations of young farmers in Nova Scotia for pursuing farming. Due to the limited sources of academic literature discussing the social dimensions of sustainable agriculture, and especially the lack of scholarly attention for the experiences of farmers themselves, it was appropriate to employ an exploratory approach (Denscombe, 2007). Lincoln and Guba present this exploratory approach as a modified form of grounded theory, called “naturalistic inquiry” (1985). As such, the interview questions were designed to be open-ended and allow for detailed, narrative responses. The analysis provided a means of interpreting both similarities between participants and individual motivations for farming. To establish trustworthiness of the findings of this study, and ground it within

the small existing literature on young farmers' motivations, it is essential to relate the conclusions of this work with other studies.

IV. Findings

A profile of young farmers in Nova Scotia

In order to provide a context for the results of the in-depth interviews and the themes that emerged through further analysis, this section will begin with a narrative summary of the participants, including a brief description of their background, entry into farming, and an overview of their current farming operations. All participants are referred to using a pseudonym, and other information that could directly identify them (i.e. farm name, partner's name) has been changed or omitted as needed. All participants are under the age of 40, and all were found to be over the age of 25. Finally, as per the recruitment criteria, none of the individuals included in this study were themselves raised on a farm, but now are either currently farming or identify as prospective farmers.

Val grew up in Spryfield, Nova Scotia, with a large backyard garden she was “put to work in” from an early age. By age 15, it had become a passion; the garden was Val’s own “mini-farm”. She recalls taking a career aptitude test in high school, and reviewing her options thinking, “Everything was so depressing, and the only thing that seemed moral or important was farming”. At 18, Val considered attending the Nova Scotia Agriculture College, but says, “It just never seemed like the right fit for the kind of farming I wanted to do, the kind of grassroots, community supported agriculture”. Instead, Val left Nova Scotia to pursue her post-secondary education, but dropped-out and apprenticed for three years on different farms, describing the experience as her “first exposure to what it’s like to be a vegetable farmer”.

While living away, Val says, “I always had this feeling that I didn’t want to be part of the brain drain. Nova Scotia has this really special quality, and in order to contribute to this place that has given me so much, I needed to return and invest”. Val returned and completed her Bachelor of Arts degree, then focused on her dream of starting a farm. She approached an older friend who owned some unutilized land and hired help to “turn what had been a hay field for twenty years into a production garden”. Val

managed the market garden for three years, running the business as well as working an additional job off-farm, but came to the realization that it was “not a feasible long-term endeavour”.

I could have kept going, but it would have just been like hitting a wall, not getting anywhere with my stress-levels and finances. Doing it alone is maybe impossible. An individual farmer has to have a lot of different kinds of support.

Val needed to problem solve. She discovered an opportunity working as an employee farmer in Grand Pré, Nova Scotia, producing food for a cooperatively owned local business. The market garden is now going into its second season, growing vegetables, fruit trees, flowers and herbs on 1.5 acres, while also serving as a demonstration project; “part of the goal is that people, the general public, can come and see what it’s like to run a production garden, and it’s a space to trial new, small-scale appropriate technologies”. For the upcoming season, Val will have one intern working with her. Val describes her current employment as “a pretty ideal situation, because making money growing vegetables is fantastically difficult”. Being paid an hourly wage has enabled Val to make farming her full-time job. She advocates for other institutions to follow this example.

Coming with the skill-set of a farmer, it’s not just that I know how to put stuff in the dirt and make it grow, there’s a whole awareness of food and food issues that I think is a huge asset to businesses. I think it’s important for institutions to consider ways of involving and paying farmers to farm for them.

Carly lived for most of her childhood in Stewiacke, Nova Scotia. At age 18, Carly started working at a garden centre, and planted her first vegetable garden that year. Carly found great pleasure in growing her own food and continued to do so whenever her living arrangements allowed, but it was several years before she decided to farm.

The thing that really cemented it for me, where I knew all of a sudden, “I am going to the agricultural college and I am going to learn how to grow vegetables organically and that is what I am doing with the rest of my life”, was an assignment in my biology class at the community college. It was a debate about genetically modifying organisms [...]. I spent incredible amounts of time researching GMOs, just becoming more and more horrified [...]. The more you know about your food supply, the scarier it is even to just eat supper! And I just decided, “This is what I need to do, I need to take control of my own foods, I want to grow them and know exactly how they are treated”.

After receiving her diploma in Plant Science Technology, Carly and her partner set-out on a province-wide search for a farm of their own, “Nova Scotia is our home. We love Nova Scotia [...] and so when we decided it was time for us to buy our property, we didn’t really consider going anywhere else”. They purchased a 16 acre property near Tatamagouche, and are now entering their third year. The biggest challenge starting the farm has been lack of resources.

We started with nothing, we still don’t have that much. There’s an old greenhouse foundation with power and water supply running to it, but we just don’t have the funds to start it up. We have our mortgage on the house and we just haven’t been ready to take out a big loan yet, when we have no idea what our income would be, especially in the beginning.

It will be their first season producing food for sale; growing mixed vegetables on just under an acre and producing fruit from the established fruit trees and wild berries found throughout the property, as well as raising chickens and ducks for eggs. The couple plans to start-out by selling at the local farmers’ market, and construct a farm stand right on the property to sell direct. Carly explains, “We want to start small and build up as we go along, and learn our soil more. We don’t ever want to be a large farm, our whole goal is just to sustain ourselves, and provide a bit”. As the farm is being established, Carly will continue waitressing part-time for the first few years.

Steph was born and raised in Hamilton, Ontario. Although her parents had a community plot in the Royal Botanical Gardens, Steph expressed, “it wasn’t really until I left home that I became interested in growing things”. She moved to Halifax, Nova Scotia to study Marine Biology at Dalhousie University, and worked part time at a store selling locally sourced and organic foods. This store not only centred around supplying wholesome food, but also worked to foster community engagement and education with a demonstration garden on site. Through this job, Steph became passionate about “growing food that is healthy for people and good for the planet”.

After completing her degree, Steph and her partner found themselves a small piece of land close to his family in Amherst, Nova Scotia. They have been there now for almost four years, growing an acre of hops which they sell directly to local breweries. In addition, they rent land from a neighbour to grow

2.5 acres of certified organic vegetables, sold through a CSA from mid-June to mid-December. As a marketing scheme, Steph explained that a CSA model is “mutually beneficial”, because members receive a weekly share of fresh, seasonal vegetables, while supporting ecological practices and ensuring the farmers receive a fair price for their products.

Our customers pay in advance, so we can plan what to grow and we have the money to do it. Otherwise, as a farmer, you're taking on all the financial risk, but with a CSA, you know, we might lose a crop but our members still get their box with seven or eight other tasty veggies to eat, so no one loses.

Neither Steph nor her partner had any experience with farming prior to starting their farm. To facilitate their early years, both worked part-time on another organic vegetable CSA farm in the area. This opportunity not only provided them with valuable practical skills, but has also connected them with older, established farmers who continue to be looked to as mentors. To supplement their farm income, Steph and her partner have additional jobs during the off-season.

The couple faced trying times last summer, when after three years of cultivation and careful tending, they watched their first hop harvest shrivel up; “It was so hot and so dry, and we lost more than three quarters of the crop. We couldn't afford to drill a well and install irrigation”. Despite the low yield, Steph says they have not lost any enthusiasm for farming. They share this enthusiasm through hosting regular volunteers and facilitating farm tours for aspiring farmers.

Julie grew up in the suburbs in Winnipeg, Manitoba, and Ottawa, Ontario. As a teenager, Julie began volunteering on a nearby CSA farm in exchange for a weekly share of vegetables. Julie herself never helped on the farm, but she did become interested in food issues and from the age of 16 started reading and learning about nutrition. Julie went to college and studied holistic nutrition, and after graduating, apprenticed on a medicinal herb farm near Algonquin Park. It was here that Julie discovered her love for farming, and realized it was what she wanted to do as a career, saying, “I wanted to be a farmer because I felt that, for me, it was the best way of being a good nutritionist and providing people with healthy food”.

For two years Julie worked as a nutritionist, and then embarked on an eight year long learning venture, apprenticing and working on farms all around the globe, going as far as India and South America, with one very influential experience managing the gardens on a farm and wilderness retreat in Nova Scotia. Julie gained a wealth of knowledge, choosing each experience based on what she still wanted to learn. The final piece for Julie and her partner was a farm business planning course.

That was a huge help for us, because we had both learned a lot about production and marketing, but not so much about planning a small business. [...] We made a business plan and at the end of the course mentors would read through it and offer suggestions, and that was really useful for us.

Julie and her partner headed east to look for a farm, away from the urban sprawl and high cost of arable land in Ontario. Having fallen in love with the local community, Julie approached the owners of the farm she had been employed on in Nova Scotia, and arranged a lease agreement, while continuing to search for land to own. Getting a loan to purchase a farm was a significant challenge, and they were continually turned down.

We needed to show previous years' income, and for both of us, our previous years' income was barely anything because we'd been apprenticing or working on other farms. [...] We tried Farm Credit Canada and they told us they would only consider us if one of us got a full-time off-farm job. [...] We tried our credit unions and some other banks, but they said they wouldn't do farm loans at all.

Finally, the couple went to the Farm Loan Board, who granted them a loan based on their business plan and previous years' experience. The farm is a 15 acre property near Amherst, Nova Scotia, where they grow vegetables on about two acres, along with apples, melons, herbs and cut flowers, and raise laying hens. Everything is sold at the weekly farmers' market. The farm will be certified organic by May or June of this coming season, which will mark the second year of production on the property.

Graham is from the small city of Bathurst in northern New Brunswick, and describes his agricultural experience growing up as being “effectively zero”. Graham studied economics at Harvard University, and then lived in New York City for ten years with a career in finance, buying and selling

stocks. From his early twenties, Graham found the idea of farming appealing, and eventually he left his professional life in the big city.

I wanted to do something different [...]. I was tired of getting dressed up in the morning to go sit in an office, and I just felt like I was part of a rat race heading towards a finish line I had not consciously chosen. I mean, there's the expression, "Even if you win the rat race, you're still a rat".

Graham moved to Halifax, Nova Scotia, and began to seriously explore his farm dream. He continued working for a couple of years, until he had the savings to “take the plunge and try and make a go of farming, because profitability is certainly not a guarantee in the early years, not even realistic in the early years, I needed to build up a little bit of a cushion”. Graham wanted to own agricultural land, feeling it would be a good investment, and something he could personally attain with Nova Scotia’s comparatively low land prices.

I've travelled a fair bit, and I've seen how valuable land is and how little of it there is. Travelling in China, you don't have to go very far outside of Shanghai and they're cultivating crops on the slopes of the ditches, because that's how valuable arable land is. And here in Nova Scotia, a person like me of no fabulous wealth has the opportunity to own a beautiful piece of property that can be productive, and something that is permanent.

Together with his partner, Graham purchased a 160 acre property in Scotsburn, Nova Scotia, in July of 2011. Graham committed his time and energy into researching his farm business start-up. He was attracted to the idea of sheep as the main revenue stream and enrolled in a comprehensive training course called “The Modern Shepherd”. This was Graham’s “first exposure to any sort of agricultural education”, and he felt it was invaluable; “it covered everything, from husbandry to pasture management, marketing and lambing. [...] It gave me a really solid foundation”. Graham’s plan further developed through conversations with a cheese maker from Cape Breton in need of sheep’s milk. With the promise of a viable business partnership, Graham bought 35 ewes of a dairy sheep breed in the late summer of 2012. Graham hopes to have his commercial operation underway in time for next spring.

Rachel grew up in Dartmouth, Nova Scotia. She became familiar with farming from an early age, spending two weeks every summer on a farm holiday in rural Prince Edward Island. Rachel loved

spending time with the animals on the farm, and decided she wanted to work with animals in her future career. She attended the Nova Scotia Agricultural College, receiving first her diploma in Zoo Keeping Technology and her Bachelor of Science degree in Animal Science.

When I went to school I thought I was going to go do veterinary medicine, I thought I was going to work with exotics. I always thought I would maybe own a little farm [...] but I think if I had gone to any other school that was for pre-vet I probably wouldn't have latched onto agriculture.

Shortly after graduating, Rachel began raising animals and growing her own food. She was living on a dairy farm where her boyfriend worked, and enjoyed the lifestyle, but did not foresee herself farming as a livelihood. The decision to begin farming full-time came about when Rachel's career started heading towards a dead-end.

I worked for the government doing wildlife rehabilitations, and I really thought that was what I was going to do, until the government began shutting down a lot of rehabilitation centres and not funding them anymore. [...] I could see my window closing at work, so I thought, "Well, I should just work for myself, and if I am going to work for myself, I should do something that feeds me and sustains some people around me".

With a free-lease agreement on the farm where they lived, Rachel started-up her own business. In addition, she took advantage of the Self Employment Benefit program, which assists new entrepreneurs plan their business and provides financial support. Rachel also volunteered on other farms with the WWOOF (Willing Workers on Organic Farms) program to gain more practical experience and knowledge.

This past November, Rachel and her partner purchased a 10 acre property. As a heritage farm, they raise heritage breed animals, including chickens, pigs, sheep, and ducks, as well as grow heirloom produce, with 1.5 acres of mixed vegetables, sold through a CSA. Trying to "do things the old way" means that fuel input on the farm is as minimal as possible. Rachel wanted to have a heritage farm because she did not want to rely on intensive practices; instead she wanted to raise everything naturally. Heritage breeds are hardier but have lower yields and grow more slowly than conventional products. As such, starting-up with this style of farming is a challenge, and it takes several years before products are available to be sold year-round.

Colin grew up in Wolfville, Nova Scotia and St. Catherine's, Ontario. During his childhood, Colin had no contact with farming, and "no interest". Colin received his Bachelor of Arts degree in Philosophy, and then started graduate school in Massachusetts studying Wildlife Biology, where Colin became a CSA member at a local organic farm and occasionally volunteered. It was here Colin met his wife, a frequent volunteer. The couple decided to do a 12 month farm apprenticeship in British Columbia, through the nationwide Stewards of Irreplaceable Land (SOIL) program.

We were both naturalists, really keen on being outdoors, and so organic farming certainly fit in with those interests, but when we started our apprenticeship, at that point we really didn't think we were going to become farmers. We were young and it was something to do for a year, where we would learn how to grow vegetables and how to have animals, and then we'd be able to do it ourselves, but just as a garden, you know, not commercially, just for ourselves.

Over the course of the year, however, Colin says, "We really enjoyed the work and we saw it could be profitable, something we could make a living from. I guess we fell in love with [farming] and made the decision that we wanted to give it a shot". They moved to Nova Scotia and worked for two years, saving as much as possible, and the following August invested in a 30 acre property in the Annapolis Valley.

We bought an organic vegetable farm with vegetables in the ground, ready to harvest. [...] We basically just took it over and continued. [...] We had a whole lot of farm equipment to get going, two tractors and all of the implements, a couple of greenhouses, and water for irrigation. So we really hit the ground running as far as farming went.

What the property lacked, however, was a house. Colin and his wife lived in a yurt for the first two years without electricity or running water. It proved to be a challenge, not only in terms of daily comforts and basic living, but also for the farm operation.

Electricity is really handy for storing vegetables, so once you harvest and wash your vegetables you can put them in a cooler before you deliver them or take them to market. [...] So those first years we'd harvest and we'd wash them, and if it was a 30 degree day in the summer there was nothing we could do to keep them cool.

Colin built a house installed solar power, allowing them to overcome these more constraining barriers. The farm is now entering its fifth season of production, growing certified organic vegetables on about 5 acres. During the summer months, they wholesale a narrow range of produce and specialty crops to

grocers, restaurants and caterers, while in the winter they sell storage crops and late season greens through a CSA which runs from the middle of October to the end of February.

Tamara is from Halifax, Nova Scotia, where she completed her undergraduate degree at Dalhousie University, studying Anthropology. As she learned of the destructive social and environmental impacts of an industrial food system, Tamara gained insight on emerging alternative food systems, and wondered, “How can I contribute to this food revolution?”

I realized farming was the ultimate form of activism to counteract the damage caused by an industrialized, global food system. Farming – providing quality food for local communities – could contribute to the sort of revolution I wanted to see in agriculture, one that deconstructs corporate monopolies and brings people back to supporting direct connections between consumers and farmers, preserving the existence of small-scale and diversified organic agriculture.

Tamara was involved in agriculture in a variety of capacities, working in community gardens, farmers’ markets and volunteering on farms within Nova Scotia, but after completing her degree, expressed the desire for “more targeted agricultural training that examined food systems through a social lens – looking at food as a way for social change”.

Nothing of the kind was available for Tamara within Canada, so she embarked for the University of California, Santa Cruz, to participate in a six-month, curriculum guided farm apprenticeship program. Tamara learned the fundamentals of organic agriculture, both in the classroom and through fieldwork, and was also engaged in a dialogue devoted to the “broader ideological perspectives of why we’re doing what we’re doing, as a new generation of farmers, like ‘what are we contributing too?’ and ‘why is our presence so important?’ and connecting it to the social issues that affect us all within agriculture”.

Returning to her native Nova Scotia, Tamara decided it was her goal to recreate such a program within the Maritime region, one that would utilize local experts and emphasize farmer to farmer training, to benefit other aspiring farmers like her. As Tamara explains, the agricultural sector is “split very much right now between a population that is aging [...] and a surge of new entrants that are keen to learn how

to farm”, and so services must facilitate “the succession of farming generations”. It is a challenging landscape to navigate as a beginner, and Tamara emphasizes:

This group needs support, in resources, funding opportunities, and education. These people need to know there are outlets that will support them through those early years, which are the hardest years for new business owners. Those are the years where you’re going to make it or break it, you know? A farmer I was working with last week said, “You either hit the ground running, or you hit the ground”.

In Tamara’s experience, meeting the unique needs of this “new and growing demographic” of beginning farmers is multi-faceted, and involves:

Providing opportunities for people to receive in-depth education on the principles of organic agriculture and then also considering their integration into the broader Maritime organic community. This means arranging for regular opportunities where they can meet with other new and long-standing farmers in the area, so that they develop the important feeling like they’re part of a broader network, part of a movement. [...] You gain so much as a new farmer by connecting with people that have been doing it within the community for decades, who know the land, soil, climate, markets, better than any.

Tamara has devoted her career to supporting current and prospective farmers, and through her work with an Atlantic Canadian non-profit organization, she has launched a new program to meet these needs, which will be commencing this spring.

Emergent themes

The narrative descriptions provided above summarize the unique journeys which led all eight participants to become involved in the agricultural community of Nova Scotia. These descriptions serve to contextualize the themes that emerged through analysis of the interview responses.

Initial motivations, ongoing inspirations

For all of these young farmers, farming is their occupation; they are young entrepreneurs, working to establish viable farming businesses with the intention of making a full-time, sustainable income. Yet, entrepreneurial spirit is not what drove these individuals to pursue a career in farming, rather, it was foremost a desire for a certain lifestyle aesthetic, a lifestyle that was meaningful and

fulfilling. For some, this desire evolved gradually over many years, before taking form as a fully developed decision, while others describe a realization or defining moment when farming became a steadfast goal. As a livelihood, farming involves risks and uncertainties, where earning even a modest living is a challenge, but for these young farmers, financial insecurity was overridden by the promise of a lifestyle with other rewards. These farmers described a sense of emotional wellbeing achieved through working outdoors and feeling connected to the world around them, a sense of personal wellbeing achieved through self-reliance and finding a place to call one's own, as well as a sense of social wellbeing by providing others with a source of food as an alternative to the industrial food system.

Emotional wellbeing was described as a love of spending each day out in the fields or involved with the animals, and gaining a sense of pleasure from the act of cultivation and nurturing care. Val expressed, "I definitely just love making things grow, I love that feeling, I love seeing a crop flower and fruit. It sounds really simplistic but I think that's a big thing". Carly had a similar sentiment, "I love being outside. There's nothing that makes you feel better than being out on a breezy spring day, digging in the garden and planting seeds, and then the next day your carrots are up, and it's just beautiful". These feelings of emotional wellbeing are perhaps best captured by Tamara, in describing her dream to own a small plot of farmland within the next three to five years, "For me, farming is just inevitable, especially for how it makes me feel in body, mind, and soul. I could never let it go. I could never not be connected to it in some way". Engaging in the occupation of farming requires dedication and commitment each and every day, often involving repetitive and mundane tasks, yet these young farmers find meaning from engaging in these ritual tasks which elicit an emotional response akin to one of spiritual fulfillment and tranquility.

Working outside provided a means of connecting to the natural world, and fostered a sense of responsibility to promote the long term health of the surrounding environment. Striving towards creating a thriving farm ecosystem was another source of emotional fulfillment. Colin described a passion for land stewardship practices that are ecologically sensitive and efficient, saying,

I love the challenge of trying to grow food better, trying to do it with less effort, and with better results – fewer pests and fewer diseases – and also better for our land. I enjoy trying to make our land more fertile and improve the soil, improve the wildlife and insect life on our farm.

This vision is also shared by Julie:

Our philosophy is to make a living doing something we feel is healthy for ourselves and for other human beings, other animals, our soils, and as healthy for our planet as we can do. Our long-term vision is to increase the diversity of our farm in ways that are profitable, to increase the fertility of our soils and to grow better crops.

Engaging in a long term commitment to revitalizing the health of the farm and surrounding biota also suggests a spiritual component to farming, by working in harmony with nature and acknowledging one's relationship to the farm within a holistic lens.

Farming attracted many of these young people as a means of achieving independence. Rachel discovered a sense of personal well-being when she started gardening at a small scale and raising chickens for personal consumption, recalling, "I was growing a lot of my own food in the summertime, it was something I was really enjoying doing, and I started to realize that I felt a lot better when I knew where my food came from, when I could eat my own food". For Carly, self-sufficiency is the main goal of starting-up her farm, "It's a lifestyle we're going towards, we just want to provide our own food for our family. We want to live in our own way by doing our own thing. We don't want to live by other employer's rules". Colin also expresses this feeling of independence,

I really enjoy not having a boss of any kind, basically having a completely open schedule and all our time is our own, not dictated by anyone else. [...] There is no separation between life and work, it's all the same thing, and it all happens here at the farm.

Land ownership was another critical piece of the farm dream for these new entrants, and Nova Scotia is the province that helped turn these dreams into realities. With lower property prices than many other parts of the country, buying a farm in Nova Scotia was more feasible for these young individuals. In addition, Nova Scotia has a proportionately higher rural population and long-established farming communities. Rachel says, "it just seems like a really Nova Scotia thing to do, to have a small farm and be trying to make a living with it". Such characteristics enticed individuals like Graham to come to Nova

Scotia to farm, “It seems to have a very forward-thinking population that is supportive of small farms and eating local. And culture, I mean, the Nova Scotia culture is very strong even in its rural communities”.

Providing food for others was another motivational driver for farming, by contributing to a more sustainable food supply. As such, farming can be considered a form of activism, and a livelihood that promotes social justice. These young farmers are all engaged in marketing schemes that connect them with the people eating their food. A sense of wellbeing develops from having a job that feels worthwhile and meets the needs of the wider community with ethical and wholesome food. Steph turned to farming due to a concern for the environment, seeing the severe consequences attached to an industrial food system, wanting to “grow food that’s good for the planet and healthy for people, providing even a tiny piece of the entire food distribution system. For us it’s so important to help meet this growing need for sustainable food, and to begin with our community”. The hard work of farming at a small-scale, using unconventional practices requiring more labour, pays-off when customers show they value and appreciate such products. This resonates with Rachel, who says, “I know some of the ways we do things is very difficult and draining. Last year was a terrible year for produce production, but when people are coming back saying they just can’t wait for our CSA, when we hear stuff like that it’s just worth it, I love it”. Carly also emphasizes the importance of providing a secure link in the food supply chain, one in which trust is built between farmers and their communities, she says:

We want to be a productive part of the community that contributes, so providing good food, because Foodland sure doesn’t do that up here. [...] Our goal is really to stay local and not grow and expand, to build a relationship with our customers so they know our practices, they know our values, and they know why we’re doing what we’re doing.

Big challenges, small-scale solutions

Entry into farming even at a small scale requires high financial investment in order to access land, infrastructure, equipment, and other essential resources, and for a young person without substantial savings, this demands ingenuity to get by with less. For all the young farmers in this study, getting started meant either saving up for a few years prior to starting-up, or continuing to work part-time while also establishing the farm. For those without an additional source of income, they express having no

choice but to start generating money from the farming operation right away, which required sacrificing other necessities. Colin's story provides a case and point example, he purchased a fully operational farm without a house, so he lived in yurt but did not have a mortgage on a house to pay-off. In contrast, Julie needed to begin paying off her loan immediately after buying her property, and she recounts, "We started the first season without cover cropping, we started growing vegetables right away, because we couldn't afford not to". Even for those who have continued working, money remains tight, and so they also must do without until they have the financial means to invest in needed resources. This is a significant challenge; with minimal resources at the outset, it takes many years of gradual growth to establish a sustainable farming operation, and these early years are riddled with uncertainties, posing an additional threat. These young farmers all hope to one day make a reasonable living farming full-time, but also acknowledge that the viability of small farms is not in their favour, and identify this to be the biggest barrier preventing other young people from pursuing farming themselves. As Graham has expressed,

The viability of the small farm is something that has been in decline, and I think if the approachable, small farm became more viable there would be people lined-up around the block to become farmers but, you know, it's tough, it's tough for a small farmer these days. [...] And capital too, I mean, it's expensive to get started, and there's not a lot of young people who have the money to do it.

The challenges of pursuing farming as a livelihood were voiced by all young farmers, including physically demanding work, a never ending "to do" list, and the stress associated with minimal earnings. Yet, the action of facing up to these challenges and finding ways to overcome them was found to be one of the most rewarding aspects of farming. With initiative and perseverance, these young farmers are able to effectively respond to the hardships inherent in their day to day work. For Val, it all comes down to resilience and self-determination,

You need the ability to go, "okay, I have to put on the problem solving hat now, I can't run away from this, I can't hope it's going to get any better". It is incredibly empowering to be confronted with an unknown and be like, "I have to solve this because no one else is going to solve this for me".

Being proactive when confronting a challenge rather than sitting-back and letting it overwhelm you is an aspect of farming that also appeals to Colin.

I really like the challenge that making our living is totally up to us, you know, it's basically like the effort we put in is what we'll get back, so that's satisfying. It's certainly stressful, but it also means you can't just go through the motions, you actually have to work at it and do the job well, because how much money you make is directly related to how well you do.

Mitigating problems on the farm requires an awareness of personal aptitudes and critical decision-making that reflects this. As Julie explains, “We can steer our business in a direction that utilizes more of our strengths, so our weaknesses can be minimized”. Experimenting at a small scale is Carly’s advice for people who may one day want to farm commercially, saying, “Starting small is the best way to go because you can manage it and you can learn your limits. Why plant two acres of broccoli if you’re not going to be able to keep up with it?” Trial and error helps hone personal strengths and reduce risks which would otherwise threaten the viability of a sustainable farming business.

Constant learning, farmer solidarity

Acquiring the skills and know-how to operate a farm was for all of these young farmers a lifelong journey. All had a knowledge base before starting their farm, either through formal education, practical experience, or training courses. They continue to seek out learning opportunities such as conferences and workshops offered through various organizations, including the Nova Scotia Federation of Agriculture, ThinkFARM and the Department of Agriculture, Perennia, the Atlantic Canada Organic Regional Network (ACORN), and the Dalhousie Agricultural Campus (formerly Nova Scotia Agricultural College). In addition, many obtain information through books, magazines, documentaries, academic journals, and online publications and webinars. As Val explains,

There is stuff happening all the time. On the weekend with a friend of mine I was like, “Oh, I am going to farmer training, it's farmer training time of year”, and they were like, “You're going? But you farm! Why are you going to farmer training?”, and I was like, “No, it doesn't end, we all go”. It's either someone else from within the community who's sharing something that they've done, or it's someone from away who is very specialized in something, so there's a really neat kind of inclusivity.

Taking part in training opportunities is valuable not only for the educational component, but also for the social aspect of meeting other farmers. Networking is understood by Tamara as the most significant

source of support for beginner farmers, especially for those who have had limited exposure to the agricultural sector and otherwise find themselves isolated in a foreign environment.

When we see so many new farmers that are coming from non-family farm backgrounds, a lot of these people have never had experience with rural living, and don't necessarily know how they're going to get started and maintain community. I think there's a real misconception that by choosing to farm full-time you are choosing alienation. I mean, there are plenty of commitments that require you to be working long hours every day and that do not allow for much vacation time, but that is not to say you can't have an incredible social network at your disposal and a support system in place to function as a soundboard when you need it, a source of infrastructure and knowledge sharing.

Building social networks involves connecting new entrants with “longstanding members of the sector” says Tamara. Mentors have been a huge asset for the participants of this study, and often are farmers whom they have worked or volunteered for in the past. Steph describes how important mentors have been for her, “We are really fortunate, [the farmers] we worked for when we were first starting, we learned so much from them to bring back to our own farm. There are a lot of farmers we really admire, and we can just call them up any time, indefinitely. They want to see us succeed”. For Carly, the local farmers’ market is a key social hub to meet other growers in the area and find assistance with her own farm, “We go basically every week, there are so many fantastic organic farmers up there, so if there is every anything I can’t figure out or have a question to, I can throw a question out to one of them, and if they can help me out they do”.

Networking through social media websites and online forums and discussion boards also helps connects these young farmers to one another, overcoming physical separation. A dialogue between farmers in Nova Scotia is occurring through many channels, and this communication is building interdependence and solidarity within the farming community. Strengthening the links within the agricultural sector is a creating a conducive atmosphere for young people in their attempts to start-up farms of their own. In Graham’s view,

A difference now versus ten or twenty years ago is there's more of a sense that we're all in it together, you know, the farm down the road isn't my competition, it's “they're my partner”, and it's “together with them”, and I think that attitude is pervading. It creates more of a community environment of the people who are starting small farms.

Capacity building, creating food culture

Support from within the agricultural community in Nova Scotia is certainly perceived to be strong, but what about support from society as a whole? All of the young farmers involved in this study sell directly to customers, allowing them to charge a fair price for their products, but requiring them to carve out a niche market and target customers who value high quality goods over cheaper food found in the grocery store. Tamara identifies “market support” as one of the key barriers facing beginner farmers in Nova Scotia.

The markets are there – there is evident and growing demand for local, organic products in Atlantic Canada, but the key is in finding out what products are needed, for which communities, how to channel them (direct vs. wholesale) and stepping in to fill that niche.

Market access is described by Rachel as a challenge for operating a viable small farm in Nova Scotia, despite a supportive local community;

In Nova Scotia I find people are really happy to be able to purchase local products, [...] but I know the markets are a lot better if I were to move to B.C. or somewhere, I'd probably be making way more money on my farm and charging more and all that.

Val stresses, “it’s time for rethinking what farming looks like and how to support that industry”, because in the current state, earning a reasonable living as a farmer requires an additional source of income; “I know a bunch of young farmers who are doing this in Quebec and Ontario and they’re all farm based, but there’s a much bigger market for that food, and I think resilience in Nova Scotia means people having off-farm jobs”.

Graham envisions a cultural shift taking place, in which the growing momentum for locally produced food proliferates.

I want to think that things are heading in a different direction, and agricultural commodities will be more valued in the near future [...]. I don't think I am wrong in predicting that there's going to be a turning point in agriculture, and I think it's starting to happen, but whether it's going to happen in the next three to five years or in the next fifteen to twenty years, I guess, remains to be seen.

Moving from niche marketing to the mainstream requires reshaping of cultural value systems. These young farmers recognize their role in creating a new value system by engaging the broader community and fostering an appreciation for the source of one's food. According to Val,

Something that is still developing is farm market culture. Halifax is pretty awesome, but there's still a lot of farmers going home without selling vegetables, like coming to the market with vegetables, and there's tons of people there, but what are they doing? Buying coffee. So food culture, that gap is still developing, [...] where people come together and we celebrate food way more.

Farmers' markets and open farm days are cited by Rachel as important ways of "leading by example", to showcase farming to the public and inspire them to become involved in food production.

There's a lot of people that go to the farmers' markets, and when they go they see people farming and doing it at a small scale and doing it and loving it, [...] and you get people who come around and see how your farm operates, and it gives people in our area faith back in themselves to farm because they think everyone has the ability to farm. [...] And they might turn around and decide, "I want to do that too", or even just turn around and say, "You know what, I can garden in my own backyard, I've got a plot that's for sure big enough for me to grow my own produce".

For many of these farmers, it was not until they were exposed to agriculture that they became interested in exploring farming themselves. Integrating the farming community with the wider social community is needed in order to increase exposure. Farming is something that must be experienced first-hand, says Tamara, and for these individuals direct involvement was essential for a love of farming to develop and take-hold. Many of them are now committed to providing other aspiring young farmers with similar opportunities, acting as host farms for volunteers, interns, and apprentices, as well as linking up with support organizations to facilitate workshops and training sessions. Reaching out and engaging people in farming builds capacity not only within agricultural circles but within the community at large, by reconnecting people to their food supply and instilling a more sustainable value system.

Summary of findings

The young farmers interviewed for this study are working to establish viable small-scale farm businesses, with the hopes of one day making a modest income entirely from the farm. All have been operating their current farm for less than five years. These individuals have expressed a diverse range of

motivational drivers for deciding to enter into farming, as well as identifying an enduring source of inspiration found in many aspects of farming. These included the sense of emotional, personal, and social wellbeing developed through the occupation of being a farmer. Emotionally, farming is experienced as fulfilling through working outside and promoting land stewardship. Personally, farming was found to be fulfilling through building independence and creating a place of belonging. Socially, farming was considered fulfilling through providing food for others and supporting sustainable food networks. As a career choice, farming was understood to be a livelihood with minimal earnings, requiring ingenuity in order to get by. Finding ways to overcome these challenges was rewarding, and could be achieved by harnessing personal strengths to shape business decisions. All the young farmers looked to an array of resources to assist in their farming operations and facilitate constant learning. Connecting with other farmers was of primary importance in gaining new knowledge, as well as instilling a sense of inclusivity within the agricultural community. Finally, the study participants advocated the need to engage society as a whole in issues related to the food supply, and deemed the most effective way to do so was through increasing exposure and welcoming the public to see and experience farming.

V. Discussion

The findings of this study highlight the experiences of eight young people intimately involved in the agricultural sector of Nova Scotia, either as producers or service providers. Returning to the research question guiding this study, “what are the motivations of young, beginning farmers in Nova Scotia to pursue farming despite not having an agricultural upbringing?”, provides an entry point for discussion of how the findings relate and contribute to these themes within established scholarly literature. For the participants who took part in this research project, the decision to pursue farming as a livelihood was motivated by the fulfilment promised in a farming lifestyle. Fulfilment was gained through a sense of emotional, personal, and social wellbeing, and these qualities instilled an ongoing inspiration to farm. Dona Brown (2011) suggests that the initial motivations for the resurgence of “back-to-the-landers” are rooted in idealism, while the “dream of self-sufficiency” and a desire to regain independence ultimately sustains this new generation of farmers. Kregg Hetherington (2005) also supports this understanding. He has called the organic growers of Nova Scotia “ideological migrants”, initially holding onto a utopian vision of what it means to be a farmer. This vision undergoes a process of being reshaped over the years as these farmers navigating the realities of life as small food producers.

The experiences described by the young farmers involved in this study do not fully align with these theories presented by either Brown or Hetherington. The decision to farm for these individuals has developed from diverse influences reflective of their unique biographies and life experiences leading up to starting a farm, and although they share similar elements, cannot be synthesized to explain to initial motivations for all participants. Likewise, that which keeps them farming, the aspects they love most about their job, is not consistent among all responses. While many new farmers have found motivation in similar ideological agendas, aspects of these ideologies (i.e. spiritual fulfillment, self-sustainability, environmental concerns) hold different levels of significance and emerge at different times for each farmer. The trajectory of how their motivations change over time is not linear, but rather unique to each context. For example, Julie wanted to become a farmer foremost to provide food to others, but when

talking about the fulfilling aspects of her job, she said “I love that we’re growing food, you know, we would never need to feel hungry”. Carly, on the other hand, says, “it’s our goal to be self-sustained, that’s what drives us”, she was attracted to farming as a means of self-reliance, and the desire to provide food for others comes secondary to that. Despite the differences in significance given to various facets of farming, all participants shared a philosophy of operating at a small scale, and serving as a form of resistance to the severe consequences of the dominant food system.

Hetherington’s insight into the perspectives of Nova Scotia’s organic growers is now twelve years in the past. This study revisits some of the key findings of Hetherington’s work. The responses of a new generation of farmers show how Nova Scotia’s agricultural landscape has transformed. Many of the farmers depicted in Hetherington’s study had been operating their farms for several decades, yet all expressed a feeling of disconnect from the surrounding community. Membership in an organic community of likeminded individuals engaged in similar ways of life could not reconcile displacement from the local community (Hetherington, 2005). The sentiment of longing for the local and for membership in a rural community was not a theme that surfaced during this study. The new generation of young farmers interviewed for this project described integration with their local communities and relationship building with their immediate neighbours. As these individuals all come from a background without experience living in rural settings, it is noteworthy that they did not ever mention challenges with embracing this new environment. This suggests a shift in perception from the time of Hetherington’s research, and can be captured in a quote from Graham, who says, “Being part of a rural community has certainly been a source of great joy”.

In his longitudinal study delving into the experiences of small-scale farmers in Ontario and Wales, Larch Maxey (2006) presents a theme of tension between customers and producers, in which farmers describe a power dynamic that is not shared equally and is not remediated even in direct marketing techniques. Further, Maxey argues these tensions need to be further investigated in social research focused on sustainable food networks. A critical analysis of the responses from farmers in Nova

Scotia does not reveal such tensions, but rather includes stories of farmers building trust with their customers and receiving gratitude for the food they supply. It can therefore be proposed that Nova Scotia has a more inclusive and equitable farming sector for small-scale producers involved in direct marketing schemes.

The young farmers in this study describe more support and cohesion with both the local community and their customers than the farmers who were the subjects of Hetherington's and Maxey's research. One possibility for this difference is the emergence of a strong peer network which is building solidarity among farmers in Nova Scotia. As a collective, farmers are more resilient to the social tensions they may encounter. Indeed, Tamara advocates that forging links from farmer to farmer is the most valuable form of support any one farmer can have. The young farmers in this study described a dense, interlacing peer network with other farmers in Nova Scotia and the Maritime region that is both accessible and growing. Opportunities for interaction and knowledge transfer are offered formally, through organizations presenting conferences, workshops, and training courses, as well as informally, through gathering places such as farmers' markets and online social media. Using the internet as a resource for connecting with other farmers should not be overlooked as a significant asset to young farmers, enabling them to reach out to a community of farmers while remaining in place on their farm. At the time of Hetherington's work over a decade ago, farmers did not have access to knowledge sharing hubs which now proliferate on the internet. They remained separated by physical distance, and as such a sense of community and belonging may have been more challenging to maintain.

In addition to a supportive peer network, Gillespie and Johnson (2005) state that in order to facilitate start-up and success of farming ventures by new entrants, a "conducive social context" is critical. The authors explain, farming is "embedded in contexts of social institutions and social relationships that frame the possibilities for success and failure. Therefore, continuation in farming will be more likely with a conducive social context" (p. 6). Of the many factors discussed, one in particular rings true with the findings of this study, described as the "availability of 'good' markets for products

(defined roughly as access to conventional mass, established speciality niche, self-created niche, or other markets on terms which allow adequate net profits – e.g. having willing buyers, low transaction costs, and high selling prices)” (Gillespie & Johnson, 2005, p. 7). For beginning farmers in Nova Scotia, availability of good markets was identified as a challenge despite public support for local food producers. As alluded to in the interview responses, the market for local food in Nova Scotia is limited compared to other provinces such as Ontario, Quebec and British Columbia. This is emphasized in the report by Statistics Canada called “Farming in Canada’s Census Metropolitan Areas”, which finds that certain farm types do better with closer proximity to urban population centres. In particular, organic and small farms located near major urban areas have higher earnings than those without access to these large markets (Statistics Canada, 2006). In Nova Scotia, where the population is predominantly rural compared to other provinces, food producers may find it more challenging to make a profit.

The findings of this study show that young farmers in Nova Scotia believe that infusing values for high quality, locally produced sustainable food can help expand markets; however a shift towards a more socially-just and environmentally-just food system requires not only public enthusiasm, but economic reform (Maxey, 2006). Maxey asserts that economic reform is “an overriding requirement if we are to move to more sustainable food systems, [...] to ensure all ‘external’ costs are fully internalized with the food we eat. Only once this is achieved will more sustainable approaches to food provisioning operate in a fair and efficient market” (2006, p. 241). The dominant food system continues to undermine small-scale producers with high externalities, and as all the farmers in this study agree, the financial viability of small farms is the greatest barrier to creating more sustainable food networks. As Val professed, “We live in a world where, like farming and the regular economy are on completely different scales, they should not be in the same world, because the money you generate from the amount of work that [farming] takes does not make sense in the regular world”. According to Scott and Colman, farm economic viability in Nova Scotia has continued to trend sharply downward over the past decade, and “these disturbing trends are occurring even while farm cash receipts are growing, and while standard economic

growth measures fail to signal problems. [...] If current trends continue unabated, the future of Nova Scotia agriculture is clearly at risk” (2008a, p. iv). To alleviate these risks, Scott and Colman outline various recommendations produced through extensive interviews with farmers from a previous report, dated 2001. Of the four recommendations listed, two were also identified by the young farmers in this study; firstly, “market diversification to improve competition (and therefore prices) for food products”, and secondly, “stimulation of increased demand for local products, for example through local procurement policies by businesses, retail stores, universities, schools, hospitals, and government agencies” (Scott & Colman, 2008a, p. iv). While today’s young farmers are pursuing avenues to diversify their markets by selling direct to customers, few have taken advantage of institutional support for local procurement. Therefore, developing procurement policies for locally produced rather than imported foods has the potential to promote farm economic viability and support the continuation of farming in Nova Scotia, and should be a key area of focus.

Many scholars discuss a “critical start-up” period of about five years for new entrants into agriculture, after which time a “waking up” occurs. Farmers find they must face up to some “tough realities” and re-strategize (Hetherington, 2005; Maxey, 2006; Johnson et al., 2001). This phase of adjustment is described by Johnson *et al* (2001): “after a few years’ experience, new farmers find it necessary to significantly modify their operation, marketing, location or farming vision in order to farm successfully” (p. 6). All of the young farmers who took part in this study are currently very early in their start-up, and none have yet surpassed this critical period of restructuring. New farmers such as these need “all kinds of practical information and networks, [...] reliable information and encouragement to make decisions that will allow them to continue farming”, insist Johnson and colleagues (2001, p. 6). The young farmers involved in this study are in a period of uncertainty and fluctuation; without support their farms may not prove to be viable long term operations, and they may not successfully transition to a more established and stable stage. Yet optimism is not lacking within this group, and they have found sources of support to meet their needs for services and resources. Val shares this optimistic outlook in the

following quote, “In Nova Scotia there are a lot of resources, there are a lot of people who have gone through start-up very recently in small-scale farming, and it’s a very supportive community that exists”.

Overall, the outlook for Nova Scotia’s agriculture sector, from the perspectives of the young farmers in this study, is one of hope. Scott and Colman (2008b) maintain that creating a healthy farming sector and revitalizing the workforce requires young people with the willingness to farm. As this study shows, young people are not only willing to farm, but have devoted to do so, despite the unfavourable economic outlook. As new generation of farmers, these individuals have all dedicated their lives to farming at a small-scale using sustainable practices, once again upholding a place in society as “bastions of environmental stewardship”. Through their work, each of these farmers is engaged in a relationship with the natural world, learning from their surroundings to promote the health of the biotic community which in turn promotes farm productivity. As a collective, Nova Scotia’s young farmers are planting the seeds for a paradigm shift in agriculture and food production. Dr. Fred Kirschenmann, a leader in farming, philosophy and sustainability, believes the shift to an alternative approach requires a change in philosophy; from reductionist thinking in which maximum yields are the only indicator of success in farming, to holistic thinking, focusing on understanding relationships (Kirschenmann, 2005). Kirschenmann coins this vision “spiritual agriculture”, whereby farmers foster an intimate connection to their land, becoming familiar with the natural cycles and aware of the diversity of life it sustains. “Such a spiritual transformation would have the potential to bring revolutionary changes to agriculture and set it on a path toward sustainability”, Kirschenmann envisages (2005, p. 10). The testimonials of beginning farmers in Nova Scotia depict a spiritual transformation underway in the province, and provide hope for revolutionary change in the agriculture sector to soon follow.

This study provides a snapshot view of the current experiences described by eight young people currently working within the farming sector of Nova Scotia. Revisiting the themes of this study using a longitudinal approach is recommended to further research in this area. Future studies are needed to determine whether these young farmers are able to continue with farming, as their current status is one of

insecurity, not yet beyond the critical period of start-up. Further, additional research should ask whether young farmers maintain the same motivations, whether the small-scale farming movement grows, and whether economic reform occurs within the agriculture sector of Nova Scotia.

VI. Conclusion

In this study, in-depth interviews were conducted to discover why young people from non-agricultural backgrounds are choosing to take up farming in Nova Scotia. The responses of these eight individuals spoke of a desire to farm rooted in the fulfilling qualities such a livelihood can provide – a sense of emotional wellbeing achieved through working outdoors and feeling connected to the world around you, a sense of personal wellbeing achieved through self-reliance and finding a place to call your own, as well as a sense of social wellbeing by providing others with a source of food as an alternative to the industrial food system. The participants are all beginning farmers, early-on in their business ventures, but they hope to one day make a full-time living from their farms. The challenge of working in a sector where economic viability has been steeply declining is acknowledged by these individuals and is met with ingenuity and resourcefulness to make their ideological dreams into entrepreneurial realities.

The social landscape in Nova Scotia has transformed over the past decade in regards to support for small-scale farmers; social networks within the farming community and rural community at large appear to be robust and in fact a draw to farming within the province. Direct marketing techniques such as farmers' markets, community supported agriculture (CSA) initiatives, farm stands and demonstration gardens play an important role in this by allowing these young farmers to connect with their consumers. In addition, services for new farmers are accessible and appear to be meeting the diverse needs of this group, especially in terms of knowledge transfer by connecting these young farmers to mentors; established farmers who have many years of experience that is an essential source of wisdom to be passed on to the next generation.

Young farmers recognize economic reform as necessary for the sustainability of small-scale farming operations. The participants of this study are optimistic that through increased public education relationship building between farmers and citizens, access to markets will no longer present such a barrier. Another potential solution which remains underdeveloped is implementation of food

procurement policies by institutions, to ensure small-scale producers can earn a living from their farm. The young farmers in this study are leaders in a transition to an alternative food system which focuses on the principles of personal autonomy, environmental health, food justice, and community vitality; rather than producing food only for profit. Future work is needed to determine whether the initial motivations and ongoing inspirations of these young farmers help carry them through the precarious period of start-up and restructuring, where they currently find themselves. This study provides a lens through which to view sustainable agriculture in Nova Scotia, but additional research must be conducted to examine other aspects of sustainability for small-scale farming, by asking how to support and maintain the emergence of an alternative food system.

VII. References

- Agriculture and Agri-Food Canada. (2006). Next generation of agriculture and agri-food policy. Economic background: Changing structure of primary agriculture. Retrieved from http://www4.agr.gc.ca/resources/prod/doc/pol/consult/econom/pdf/structure_e.pdf
- Anthony, C., & Masterson, O. (Directors). (2011). *GROW!* [Motion picture]. Atlanta, GA: Anthony-Masterson.
- Berg, B.L. (2001). *Qualitative Research Methods for the Social Sciences*. Needham Heights, MA: Allyn & Bacon.
- Brown, D. (2011). *Back to the land: The enduring dream of self-sufficiency in modern America*. Madison, Wisconsin: University of Wisconsin Press.
- Cabell, R. (2012). *Rooting occupation in nature and community: The lived experience of community based ecological farmers*. (Master of Science thesis). Retrieved from DalSpace Institutional Repository, <http://dalspace.library.dal.ca/bitstream/handle/10222/15379/Cabell%20Rebecca%20MSc%20200T%20August%202012.pdf?sequence=1>
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45, 483-499.
- Denscombe, M. (2007). *The good research guide for small-scale social research projects*. McGraw-Hill International.
- Gillespie, G.W., & Johnson, S.E. (2005). Success in farm start-ups in the Northeast. *Proceedings of the Rural Sociological Society Annual General Meeting*. Tampa, FL.
- Hellmann's Real Food Movement. (2009, June 3). *Do you know where your food comes from? Eat Real. Eat Local* [Video file]. Retrieved from <http://www.youtube.com/watch?v=dIsEG2SFOvM>
- Hetherington, K. (2005). *Cultivating utopia: Organic farmers in a conventional landscape*. Black Point, NS: Fernwood Publishing.
- Hiranandani, V. (2010). Sustainable agriculture in Canada and Cuba: A comparison. *Environment, Development and Sustainability*, 12, 763-775.
- Johnson, S.E., Bowlan, M., McGonigal, J., Ruhf, K., & Sheils, C. (2001, June). Listening to new farmers: Findings from new farmer focus groups. *Report of the Northeast New Farmer Network*, New England Small Farm Institute.
- Kenner, R. (Director). (2008). *Food, Inc.* [motion picture]. Los Angeles, CA: Magnolia Home Entertainment.

- Kirschenmann, F. (2005). Spirituality in agriculture. *Paper presented at The Concord School of Philosophy*, Concord, MA, October 8, 2005. Retrieved from <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2005-10-spirituality-agriculture.pdf>
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications.
- Lyson, T.A. (2004). *Civic agriculture: Reconnecting farm, food, and community*. Medford, Massachusetts: Tufts University Press.
- Maxey, L. (2006). Can we sustain sustainable agriculture? Learning from small-scale producer-suppliers in Canada and the UK. *The Geographical Journal* 172, 230-244.
- Miller, L. (Chair). (2010, November). Young farmers: The future of agriculture. *Report of the Standing Committee on Agriculture and Agri-Food, Government of Canada*.
- Moscovitch, P. (2012, October 26). Number of Nova Scotia farms increasing. *Farm Credit Canada Express*. Retrieved from http://www.fcc-fac.ca/newsletters/en/express/articles/20121026_e.asp
- Pouliot, S. (2011). The beginning farmers' problem in Canada. *Working paper for the Structure and Performance of Agriculture and Agri-products Industry Network*. Department of Economics, Iowa State University. Retrieved from <http://celarc.ca/cppc/233/233068.pdf>
- Roberts, P. (2008). *The end of food*. Boston: Houghton Mifflin Company.
- Salatin, J. (2011). *Folks this ain't normal: A farmer's advice for happier hens, healthier people, and a better world*. New York: Centre Street.
- Scott, J., & Colman, R. (2008a, August). Economic viability of farms and farm communities in Nova Scotia and Prince Edward Island: An update. *GPI Soils and Agricultural Accounts*. Retrieved from <http://www.gpiatlantic.org/pdf/agriculture/farmviability08.pdf>
- Scott, J., & Colman, R. (2008b, October). Towards a healthy farm and food system: Indicators of genuine progress. *The GPI Soils and Agricultural Accounts*. Retrieved from <http://www.gpiatlantic.org/pdf/agriculture/thffs.pdf>.
- Select Nova Scotia. (no date). *Where to buy local*. Retrieved from <http://www.selectnovascotia.ca/index.php?cid=12>
- Statistics Canada. (2006). *Farming in Canada's Census Metropolitan Areas*. Retrieved from <http://www.statcan.gc.ca/ca-ra2006/articles/cacma-rarmr-eng.htm#cmaback>
- Statistics Canada. (2011). *2011 Census of Agriculture: Snapshot of Canadian Agriculture*. Retrieved from <http://www.statcan.gc.ca/pub/95-640-x/2012002/00-eng.htm>

- Statistics Canada. (2013). *Farm Financial Survey 2011*. Retrieved from <http://www.statcan.gc.ca/pub/21f0008x/21f0008x2012001-eng.pdf>
- Stier Adler, E., & Clark, R. (1999). *How it's done: An invitation to social research*. Scarborough, ON: Wadsworth/International Thompson Learning.
- Stiles, D., & Cameron, G. (2009). Changing paradigms? Rural communities, agriculture, and corporate and civic models of development in Atlantic Canada. *Journal of Enterprising Communities: People and Places in the Global Economy*, 3(4), 341-354.
- Wiebe, N. (2012). Crisis in the food system: The farm crisis. In Winson, A., Sumner, J., & Mustafa, K. (Ed.), *Critical Perspectives in Food Studies*. Don Mills, ON: Oxford University Press.