"We're Swimming Upstream"... Into the Mainstream? An Overview of the Social, Economic, and Institutional Aspects of Organic Farming in Nova Scotia

by
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Abstract

Organic food has been gaining more and more popularity among Canadian consumers in the last decade. The producers of the food, the organic farmers, are still struggling for recognition and support, from the general public, from the agricultural community, and from governments. This study looked at the small, but vibrant, organic farming community in Nova Scotia, to examine what are the social, economic, and institutional implications of this alternative type of farming. It was discovered that there is still much controversy in the organic movement in terms of certification, the language that is used, and the future of organic agriculture.

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Chapter 1: What is organic agriculture... and why in Nova Scotia?

1.1 Introduction

"It's (organic farming) becoming more mainstream. There's more interest in it. There's more articles all the time, it seems, in the newspaper."
(Craig Medicraft)

"People do recognize that the word organic means something."
(Janet Wallace)

"Organic" has become a buzz word in the food world. Here in North America, we often hear the word organic coming from Europe, with some European countries such as Denmark subsidizing the conversion to organic agriculture and facilitating the marketing of organic products, so that conventional agriculture is gradually being phased out (Michelsen 1996). Measures such as these may seem a bit foreign and extreme in Canada and the United States, where agricultural land seems plentiful and environmental concerns in agriculture seem to take the back burner to decreasing wheat and beef prices. In contrast to Europe, organic farming in North America is still in its early development stages and is generally considered a marginal agricultural activity, although it is slowly growing and gaining recognition. With increasingly heated debates surrounding the creation of national standards for organic production in the United States and in Canada, the media have recognized the trend, and are reporting on the organic world. This exposure is quickly propelling organic food into the mainstream consumer society, but the information presented is sketchy, and the reports about organic farming are often based on partial information. As a result, most people still do not know exactly what organic food is, other than it is food

probably found in a natural food store that is supposed to be better for you than the other types of food found in supermarkets. Most consumers do not know what is involved with organic growing and certification, or why they should be looking for certified or non-certified organic food.

Organic farming is frequently touted as a new discovery in agriculture, but it has in fact been around since humans began growing food for themselves, even if the term "organic" was not used until the 1940s (MacRae *et al.* 1989a, p. 2). It has always involved the growing of food by humans with the help of nature, such as the use of natural fertilizers to improve soil fertility. It has evolved, of course, over the years, in its practices and in the farmers who have practised it, but the basic idea of farming with nature has remained. Many people associate organic agriculture with the absence of synthetic chemicals. However, organic farming is much more intricate than simply being synthetic chemical-free. It involves many specific farming practices such as using cover crops to protect and regenerate the soil. It also favors recycling and reusing all farm products to reduce waste, as well as encouraging a wide variety of crops, to create as balanced a system as possible (MacRae *et al.* 1989a, p. 6). These last features are often overlooked by the press, governments and the general public.

Even if organic farming is not fully understood, its practice and its products are still gaining ground. The health craze, the environmental crisis, and the globalization of markets have pushed forward the organic movement, as consumers are becoming aware that their food choices can have an impact on themselves, as well as on their communities and environment. In Canada, this has resulted in an increased demand for organic food, so that

it is becoming more readily accessible, especially in large centres like Vancouver, Toronto, and Montréal. To tap into this increased demand, many conventional farmers are expressing an interest in organic practices like composting, and some are even converting part or all of their farm to organic production. Governments are also paying attention, albeit in small, indirect ways, to the increased demand for organic food, to developing markets for this type of food, and to ways in which farmers can slowly start to adopt organic practices (MacRae and Hill 1992).

This renewed attention to more environmentally-conscious agriculture and better food has also taken place, in part, because of changes in the agricultural industry since World War II. The post-war years have been characterized by intense agricultural restructuring, as a result of an increased push towards globalization, mechanization, and larger, more productive units (Troughton 1992, p. 29). The impacts of these forces on agriculture include a decrease in the number of farms, by consolidation or abandonment; the expansion of remaining farms; an increase in monocultures, and increased dependence on external inputs, such as chemical fertilizers and pesticides (Troughton 1992, p. 35). All of these forces have resulted in the widespread adoption of a new industrial model which was easily integrated into agriculture because of the accessibility and the low price of chemical fertilizers and pesticides, as well as new, high-yield crop varieties (Reganold *et al.* 1992, p. 93). In addition, farmers were increasingly caught in a 'cost-price squeeze', in which input prices were outpacing farm income. The farmers had limited control on input and output prices, so it was necessary for them to increase their production and their efficiency. Many farmers thus adopted this model to survive and to maintain a reasonable profit margin

(Buttel *et al* 1986; Martinson and Campbell 1980). One way of doing this was by practising monocropping, in other words the growing of one main crop such as corn on a large scale, which gradually replaced mixed farms. From this model emerged the term "conventional" agriculture, a type of agriculture that displaced what was seen as unproductive, and inefficient agriculture. Conventional farming can be defined as "capital intensive, large-scale, highly-mechanized agriculture, with monoculture of crops and extensive use of artificial fertilizers, herbicides and pesticides, with intensive animal husbandry" (Beus and Dunlap 1990, p. 594).

While achieving greater agricultural productivity and efficiency, the agricultural restructuring that has been taking place since the 1950s has brought about some new problems, and has also intensified some existing problems. These include soil degradation, and soil erosion, caused by the increased use of machinery, as well as the removal of windbreaks and other soil protection measures (Hill and MacRae 1992). Other problems are the depletion of nonrenewable energy sources such as petroleum, and the pollution of water bodies, again as a result of mechanization and chemical-rich agricultural run-off. The intensive chemical use in agriculture in the form of fertilizers and pesticides among others, also increased health risks for farmers, farm workers, and consumers (Stonehouse 1996, p. 372). Until very recently, the use of agricultural chemicals was unregulated in Canada, allowing anybody to use them without a permit, at any time of the year, and without limits, which often resulted in misuse and in keeping consumers unaware of how the food was grown. Finally, agricultural restructuring has provoked a weakening of the commercial and

social infrastructure in rural communities by increasing competition between farmers, and by isolating agriculture from other rural activities such as farmers' markets, and by the depopulation of rural areas (Madden 1990, p. 315).

Many farmers, as well as consumers and governments, have come to believe that the problems mentioned above are only the beginning of larger problems, and that they must be addressed immediately to ensure a sustainable future for agriculture, and for rural communities (Molder *et al.* 1991, p. 891). Such sentiments have encouraged conventional farmers to adopt organic practices, to join many farmers who have always farmed organically.

Many consumers have demonstrated their commitment to organic food by educating themselves on the food they eat, and by demanding that organic food be made more accessible. The demand for pesticide-free, high-quality food has grown steadily since the 1960s, and particularly in the last 10 years. In 1990, the Canadian organic market only constituted approximately 0.3% of the total food market. It is argued that this number has since more than tripled, and that the demand far exceeds the supply (Tisdall 1992, p. 8). In addition, many diseases like cancer are being linked to the food we eat and to the way it is grown, and an increasing number of people are developing various sensitivities and allergies to foods and agricultural chemicals, which makes eating a very complicated process (Hill and MacRae 1992). Many consumers are health-conscious and simply want the best nutrition that is available to them, and this usually involves less-processed and more-natural food. With all these reasons, it comes as no surprise that the demand for organic food is growing rapidly.

The federal and provincial governments in Canada have also shown some interest in more sustainable types of farming by conducting or participating in research on new, less harmful practices (see Tisdall 1992 and Agriculture Canada 1988), and by putting out a comprehensive strategy for "Environmentally Sustainable Agriculture and Agri-food Development in Canada" (Agriculture Canada 1997). However, their actions have been critized by the organic movement as being inconsistent, and as merely paying lip service to the organic movement. Government-funded research on organic farming is extremely limited, and practical information on organic methods is virtually non-existent, which contrasts with the multitude of government booklets detailing the use of various agricultural chemicals.

It is clear that the organic movement is being influenced by a wide variety of sources: consumers, government, environmentalists, farmers, and so on. It is not therefore surprising that the implications of this growing movement will also be broad, extending much further than simply the organic production of food. These implications include the **social aspects** of organic farming: Who is interested in farming organically and who is actually doing it? Why have they chosen to farm organically? What social effects does this have at the farm level and on the rural community? They also include the **economic and political aspects**: Can people make a living at it, and what does this involve? What economic and institutional barriers limit their development? Much **uncertainty and debate** is also involved with organic farming: How important is certification? What pressing needs exist for organic farmers and for the organic movement? In what direction is organic agriculture moving? These are the main questions that I propose to explore in this thesis, in order to gain a better

understanding of how organic agriculture has developed, what position it presently holds, and what routes it could take in the future. This will be done by investigating the small but vibrant organic community in the eastern Canadian province of Nova Scotia. An estimated 100 organic growers or more are scattered across this province, with a discernable concentration in the Annapolis Valley. They range from established market growers to young, committed newcomers. The organic farming situation in Nova Scotia is explained more fully in Chapter 2, as well as at relevant points throughout the thesis.

As discussed in the next section, an organic farm is considered to be a balanced system, where each part is fundamental to the well-being of the whole. For this reason, I attempt to study organic farming as a system of interrelated and interdependent elements. The three main elements in my analysis are the social aspect, the economic aspect, and the institutional aspect. I do not discuss the environmental aspect as such because there are already a great number of studies that deal with the environmental benefits and impacts of organic farming (Lockeretz 1990; Vandermeer 1995; Rodale 1983; Cacek 1984). There are also numerous studies that deal with specific organic practices and the technicalities of organic farming, so I do not plan to further explore those issues.

This thesis is divided into two parts and into six chapters. The first part, which includes Chapters 1 and 2, presents the "environment" in which organic farming is studied. The current chapter introduces the subject of organic farming by exploring the agricultural and societal contexts in which it is situated. It also serves to define organic agriculture, with its main concepts, and to explain and justify the topic of this thesis, as well as the methodology used in carrying out the research. The second chapter reviews the literature

associated with organic agriculture. This literature review is interdisciplinary, featuring works from British rural studies, Canadian soil science, agricultural geography, and the organic community, that present a wide range of approaches.

The second part of the thesis presents the "ecosystem" of organic farmers, in other words, what the main elements of this type of farming are and how they interact. The first component of the system is the social aspect, examined in Chapter 3. This looks at what characterizes organic farmers, and what motivates them to farm in this manner. Is it due to economic reasons, ecological reasons, political reasons, health reasons, or complex combinations of these? Also, my evaluation includes the exploration of how organic farms can be linked to the development of sustainable rural communities. Organic farmers often lead community groups or are active members in their communities. They also promote varied rural development by offering educational sessions or publications and by operating farm-related economic ventures, such as farm holidays. Finally, I briefly examine the controversy surrounding the language used by the organic community, and what direction it seems to be moving in, as this seems to be a contentious issue for the further development of alternative agricultures.

Chapter 4 introduces the economic component of the system, particularly the economic implications of organic growing at various scales, from the farm level to the national level. I also examine the benefits and disadvantages of organic farm products, in relation to marketing and distribution. Organic farmers are found to often use different strategies than those used by conventional farmers to survive economically, for example by selling their products outside of the mainstream system. This leads to an assessment of

whether organic farmers are able to make a living on their farms, and how this may conflict with their lifestyle choices.

Chapter 5 deals with the last component of the system, the institutional aspects of organic farming. In this chapter, I look at how the organic movement and organic farmers are organized, regionally and nationally. This section includes an assessment of the importance of organic certification for the organic community, and for consumers. A review of the national standards process is presented. I also attempt to explain why governments are reluctant to support organic farming in Canada, and what form their support could take in the future.

The final chapter, Chapter 6, serves to integrate the social, economic, and institutional components of the organic system, in order to evaluate the pressing needs of organic agriculture and of organic farmers. The organic food market seems to be in beneficial position at the moment, but there are still many farmers who are struggling to make a living or to be recognized. I discuss what direction organic farming might follow in the future, and what other research needs to be done to increase the awareness and knowledge of this type of agriculture.

1.2 Demystifying organic agriculture and exploring general assumptions

1.2.1 Organic agriculture

"You know, it's very, very difficult to make the distinction between lifestyle, personal values, and philosophy, and the technique. They're all sort of intermixed, if you know what I mean."
(Paul Colville)

Defining organic agriculture is not an easy task. The term "organic" is used inconsistently in the literature and varies markedly, according to who defines it. Government bodies generally define organic operations based on their ability to sell their products as "organic" in the marketplace, while the organic movement, its supporters and its farmers generally regard organic farming as a set of techniques and attitudes (MacRae *et* al 1989a, p.3). In the latter case, organic farming is sometimes reduced to the specific practices associated with it. This can be demonstrated with the often quoted definition of organic farming developed by the USDA Study Team on organic farming, in 1980:

> Organic farming is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additives. To the maximum extent feasible, organic farming systems rely upon crop rotations, crop residues, animal manures, legumes, green manures, off-farm organic wastes, mechanical cultivation, mineral-bearing rocks, and aspects of biological pest control to maintain soil productivity and tilth, to supply plant nutrients, and to control insects, weeds and other pests (USDA 1980, p. xii).

Other authors focus on the philosophies and principles linked to farming organically, such as in this definition of organic farming given by Cacek (1984, p. 357):

> It is not a well-defined system but a concept, an approach to farming. It is a group of techniques and much more. It is an ethic, a set of attitudes about the land and about farmers' relationships with the

In its most complete form, however, organic agriculture is defined by both the attitudes and the practices associated with them, as explained by Hill and MacRae (1992, p. 73):

> (Organic farming) is both a philosophy and a system of farming. It is based on a set of values that reflects an awareness of both ecological and social realities, and on a level of empowerment that is sufficient to generate possible action.

In addition to being defined by a set of practices and attitudes, it is also governed by these five basic principles:

1. Each organic operation is unique and adapted to its land, location, and its farmers.

2. Each component of the organic operation is needed and is related to all the other components, so that an imbalance in one part of the system will affect all the other parts of the organic system.

3. This system is based on the laws and rhythms of nature, in order to minimize the environmental impact of the operation, and to improve the health of the operation.

4. Organic operations are decentralized and independent in their management choices and actions.

5. Organic operations are diversified and innovative. Various activities are performed, numerous crops are grown, and techniques are always being perfected. (Greenwood 1995, p. 74)

All types of agriculture can be placed on a continuum that has conventional types of agriculture at one end, and lower impact agricultures at the other end (see Figure 1.1).

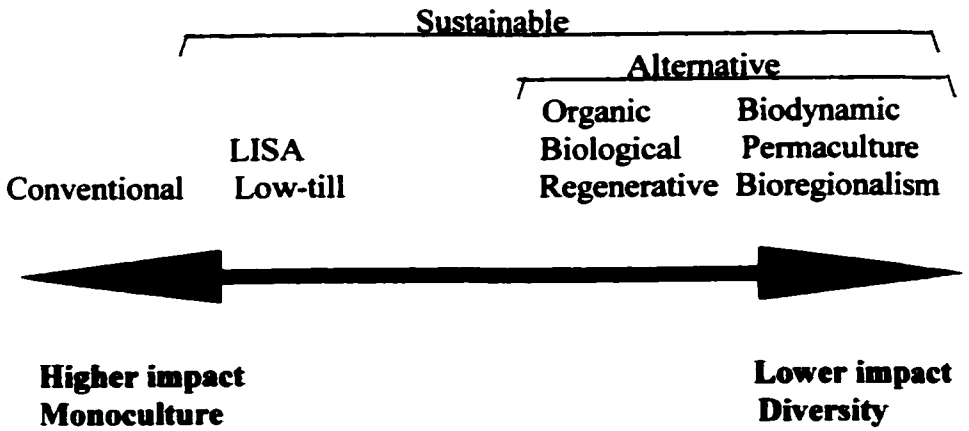


Figure 1.1 Continuum of agriculture
(Adapted from MacRae et al. 1989a, p.4)

At first thought, it would seem that organic agriculture would find itself at the lower impact end of the continuum. The reality is much more complex, as organic farmers range from operating pure organic farms which adhere to strict principles and where no outside inputs are brought in, to a more liberal organic operation where outside inputs are used when needed, even if synthetic chemicals are not applied (Hay 1988, p. 3).

Organic agriculture is thus part of a larger movement called "alternative agriculture". The word "organic" is in fact often confused or used interchangeably with other alternative agricultures such as bio-dynamic, permaculture, regenerative, ecological, and biological. There are subtle differences between these types of agriculture, namely their origins and their focus, but these are not acknowledged for the purposes of this thesis. The terms "organic" and "alternative" are used throughout this thesis to generally describe all agricultural activity that favors renewable sources of energy, the absence of agricultural chemicals, the reduction of purchased inputs, and that follows the five general principles mentioned above.

Organic agriculture, with all the other alternative agricultures, also belongs to a larger agricultural movement called "sustainable agriculture". Sustainable agriculture generally includes all types of agriculture that are not "conventional", from the Low Impact Sustainable Agriculture (LISA) that introduced soil conservation techniques in the United States to strict low-impact agriculture like permaculture. In short, "sustainable" agriculture includes all agricultural activity that aims to be economically, socially, and environmentally sustainable in the long term (Brklacich *et al.* 1991), without being dependent on government programs and subsidies (Bowler 1992, p. 24). It can be defined as:

> A production system which meets demand for food and fiber into the indefinite future at economic, environmental, and social costs which do not imperil the per capita welfare of present or future generations (Crosson 1991, p. 553).

There is also a distinction that can be made between alternative and sustainable agricultures, as they have developed for different reasons and the farmers practising each of these agricultures are not motivated by the same issues. Alternative agriculture has developed in opposition to conventional agriculture, in order to counter the negative effects of this type of agriculture. It can be viewed as a protest movement against the industrialization of farming, in which the farmers are committed to as low an impact as possible on the environment and on rural communities. Sustainable agriculture, on the other hand, often proposes ways whereby conventional farmers can gradually reduce their environmental impact and be more efficient, by changing some of their soil practices or by reducing their pesticide use for instance, without advocating a change of mindset or a new type of farming (Lockeretz 1990, p. 425; Keeney 1989, p. 102). Some authors, however, do

not distinguish between alternative and sustainable agriculture. They view sustainable agriculture as equivalent to the definition of alternative agriculture given above, and in opposition to conventional agriculture (Reganold *et al.* 1992, p. 92). For the purposes of this study, sustainable and alternative agriculture are not considered synonymous, but rather reflect the different mindsets mentioned above.

1.2.2 Common assumptions

"You're kinda fighting your way along, trying to open up people's eyes. And gradually they get opened, but it makes it harder and more time-consuming"
(Sian Newman-Smith)

"Setbacks? The elitist image of it. The weird image of it. The fact that it's still viewed as sort of fringe, hippie...What are those crazy organic farmers up to?"
(Rick Gilbert, when asked what setbacks there were in organic agriculture)

Organic agriculture has been afflicted with many stereotypes and assumptions since the 1960s, which academics and the organic movement have been trying to break down ever since. I have kept these in mind during my research, as well as in my analysis, to actively contribute to the collapse of these stereotypes which are still hindering the acceptance of organic agriculture and of organic farmers. The most popular stereotype is certainly the image of long-haired, granola-eating, hippies from the city trying their hand at farming, and not being very successful at it. Even with the proliferation of successful organic farms, this image still persists in many segments of the population:

"There are definitely people out there who think we're pretty weird, and we're refered to as the Hippies, of all things, by some people."
(Joy Elliot)

"They (the government) come here, and they don't even see that this is a farm. They think that this is my hobby. And when they see my income, I mean, it's just not serious. (...) And I'm full-time (farming)!"
(Alex DeNicola)

Another generally-held assumption is that organic farming is just a hobby, in which the only motivations are personal fulfillment, and respect for the natural environment. This may be true for some organic farmers, but the situation is much more complex. With the increasing demand for organic foods in the market place, many organic farmers are running efficient, well-managed operations, in which significant marketing and business decisions are made. Organic farmers are also leading the way in terms of finding solutions to popular agricultural problems, such as soil fertility and compaction, weed and pest infestations, and nutrient recycling, because of their deep understanding of natural processes and their acute observational skills (Bender 1994, p. 3; Hay 1988, p. 3).

Many people also assume that organic farming implies returning to old ways of farming, meaning that organic farms are primitive and inefficient. Of course, many organic methods are inspired by the way farming was done before the advent of conventional agriculture and by the techniques of many agricultural societies around the world. In addition to these traditional methods, however, the skills, knowledge, and technology have been updated on organic farms to achieve higher yields and productivity. Organic farms are even seen as more efficient than conventional farms because of the increased management efforts associated with them, and the balanced recycling of nutrients which eliminates most waste. Organic farms also benefit from decreased risks, due to the fact that they are diversified in their crops and their activities (Bender 1994, p. 3; Cacek 1984, p. 357).

1.3 Justification of topic

1.3.1 Why organic?

Why did I choose to study "organic" agriculture and not the much more popular "sustainable" agriculture, or the more general "alternative" agriculture, or the more obscure "bio-dynamic" agriculture, or the more avant-garde "ecological" agriculture? My choice was based primarily on my personal experiences and knowledge. I had worked previously with farmers who considered themselves "organic" in New Brunswick. I had also read books written by organic farmers, which had sparked an interest in alternative ways of producing food (Langer 1972; Coleman 1989). I had heard the word "organic" being thrown around in the media as a new trend, in relation to a particular type of food, grown in a specific way.

There were also other factors that reinforced my choice of studying organic agriculture. I wanted my study to be accessible to a wide number of people, namely farmers, and consumers, and this seemed to be the term that was most widely used and recognized. The term organic is also generally well-defined and structured, compared with looser terms like sustainable. It has a longer history than the terms sustainable and ecological, so it has a stronger basis to work from. Finally, the organic movement is relatively well organized, with regional certifying bodies, provincial associations, and national organizations, so that information about the growers and the movement could be accessed fairly easily.

1.3.2 Why Nova Scotia?

"We're young and growing out here. So, you're part of a different stage. It's not like we were in B.C., where it's already set up, so we're working on it ourselves. And sometimes that's exciting and it's positive, because we can try different things. And, one thing about the markets is that they're not filled."
(Janet Wallace)

Why study organic farming in Nova Scotia, and not in more prominent agricultural areas such as Québec, Southern Ontario, or British Columbia, where organic agriculture is more widespread? I wanted to focus my study on an area where organic agriculture is not yet established. Every aspect of organic agriculture in Nova Scotia seems to be still in the development stages. The market for organic food is unstable and, for the most part, still has to be developed. The number of organic farmers is slowly growing, but it remains small. The provincial association, the Nova Scotia Organic Growers Association (NSOGA), is strong but still young, and sometimes inconsistent in its actions. The provincial government has barely recognized the presence of organic farmers in the province. I thought that Nova Scotia would be a prime example of how a marginal way of farming such as organic agriculture evolves in a economically and agriculturally marginal setting. Another reason why I chose Nova Scotia is because of the rich agricultural potential that is yet to be developed in the province. Very rich and fertile soils, and a mild climate which makes for a long growing season, can be found in many parts of the province, such as the Annapolis Valley. Agriculture in Nova Scotia is also gradually shifting from more traditional agriculture like dairying and tree fruits, to specialty crops like vegetables, berries, and assorted poultry products (Statistics Canada 1992a, p. 20). Organic agriculture will possibly

emerge as part of this movement away from traditional agriculture, as new products and markets are developed in the province, and the demand for different types of food grows.

1.4 Approach and methodology

1.4.1 Principles of organic agriculture and my research approach

The five basic principles of organic agriculture can be summarized as follows:

1. Adaptable and flexible
2. Inter-relational
3. Ecosystem-centred
4. Decentralized and independent
5. Diversified

(Greenwood 1995, p. 74)

In carrying out this research, I wanted to work as much as possible within a framework that would be in accordance with these principles. This was important in order to respect the farmers involved in the study, as well as the larger organic community and movement. As an outsider, I did not want to impose an artificial framework on organic farming, when there was already a suitable basic structure that had been gradually developed from within the movement. I also thought that working within this framework would be valuable for myself and my readers, in gaining further insight into the organic movement, as well as into the farmers' everyday lives.

Organic farmers pride themselves on being adaptable and flexible in any situation. From the outset, I have attempted to be adaptable and flexible during my research. I did not limit my focus or rigorously define my research questions before beginning my research, as I wanted to focus on the issues brought up by the farmers and the organic community. Also, during my field research in Nova Scotia, I tried to be flexible by not having a set schedule

to follow. Farmer's activities varied according to the weather, the farmer's market, the availability of labor, and various other factors, so the farmers and I had to work around those factors to coordinate my visits. Each visit was also unique, ranging from simple farm tours to extensive interviews with the farmers, farmwork, meals with the farmers and their families, and other activities.

Organic agriculture also adheres to an inter-relational and ecosystem-based approach, as explained by Sir Albert Howard (1940, p. 22):

> Instead of breaking up the subject into fragments and studying agriculture in piecemeal fashion by the analytical methods of science, appropriate only to the discovery of new facts, we must adopt a synthetic approach and look at the wheel of life as one great subject and not as if it were a patchwork of unrelated things.

Adopting this principle in my approach consisted of looking at the big picture of organic farming, as well as at the smaller elements that make up this big picture, and how they all work together. It included looking a little further and questionning if things are really as simple as they seem. Often, they are not, as many other factors come into play to create a particular situation. For example, in determining farmers' financial situations, many factors other than farm sales are involved. Many farmers have off-farm jobs, while others run home-based small businesses. Some are retired, and are living off a pension. Others are receiving government aid or subsidies, farm-related or not. And these are just a few factors that could affect the farmers' financial situations. In addition to being inter-relational, organic farming is ecosystem-centred because it views all of its parts as contributing to the well-being of all the other parts of the system or operation. For instance, farmers' "success" is not contingent on economics alone. It also depends on farm management, farmer and soil

health, natural conditions, location, skills and knowledge, and how all these factors efficiently work together as a balanced system. Of course, it would be impossible to look at all the elements that make up or are related to organic farming, and I do not claim to do so. I only want to paint a larger picture than has often been presented previously, and to include in this picture what seem to be the most crucial elements.

The next principle on which my approach is based is the decentralized and independent nature of organic farming. Many organic farms have developed with only the minimum government intervention, and have not been integrated in the conventional agricultural bureaucracy. For me, this translates into taking a farmer-based approach. As there is little interest and support from all levels of government and from the conventional agricultural community for organic farming, I decided to focus on farmers' experiences, opinions, stories, and insights, to understand and explain the present condition of organic farming and the organic movement. The main themes in the thesis have been developed primarily with the use of transcribed farmers' interviews, and the information compiled from written questionnaires filled out by the farmers. Various other sources, such as the academic and farmer-based literature reviewed in the following chapter, complements this information.

Finally, the last principle is diversification. Organic farmers are diversified in their activities, their farm practices, their crops and products, their lifestyles, their equipment, and the distribution of their products. In my research, I have attempted to seek out this diversity by talking with farmers with various operations, with different histories, and unique situations. This was applied, for example, to the size of farm, the length of operation, the

gender of the main operator, the business structure of the farm, the location of the farm, and the marketing strategy. Of course, all farmers are different, and I could not meet with all the farmers; however, I tried as much as possible to talk to a representative cross-section of organic farmers in Nova Scotia.

1.4.2 Basic methodology

As discussed in a further section, very little data is available on the subject of organic farming. This type of agriculture has scarcely been studied in Canada, and the research that has been done is for the most part very specialized. Many studies have been produced on the subject in Europe and in the United States that complement my research, but the findings cannot necessarily be applied to the very different Canadian context. Information from the federal or provincial governments is also scarce, as the Census of Agriculture does not recognize "organic" or "alternative" farm operations, and federal, as well as provincial departments of agriculture are mostly concerned with large-scale intensive agriculture, not small-scale farming, nor farming within an organic system: "Within the federal government it has been noted that there is apparently no research underway which takes a systems or agroecological approach" (Winfield and Rabantek 1995, p. 41). Most government officials are not ready to adopt a new mindset or to develop a new agricultural system, so the current system is maintained and alternative agricultures continue to be marginalized, in terms of research and funding.

The response of the private sector is similar to the governments' position, in that they are not interested in supporting alternative types of agriculture. Agribusiness firms are

increasingly becoming vertically integrated, which means that they supply the inputs to the farmers, as well as purchasing the output from these same farmers. This type of business favors efficient, highly productive farms which suit their industrial activity, and tailored food products that meet their transportation, processing, and retailing needs. Biotechnology is reinforcing this vertical integration, as well as the industrial farm model, by creating new seeds and crops that are suited to companies' fertilizers, that can tolerate the company's pesticide, and that are appropriate for the companies transportation and processing strategies (Winfield and Rabantek 1995, p. 6). Organic agriculture largely rejects genetic engineering of seeds and plants, does not depend on commercial inputs, and does not favor intensive food production; therefore, the agribusiness sector generally disregards this type of agriculture. As the demand for organic food increases, these huge companies might reconsider their position, or add an "organic" component to their operations. This might include the development of an organic processed foods market, as well as an increase in the availability of purchased organic inputs. This type of activity (organic processing and organic inputs) has already occurred on a small scale, generally with companies outside of the traditional agribusiness sector.

In taking account of all these variables, I chose to go to the source for my research: the organic farmers. Howard agrees that farmers offer a richness of information in this type of research: " (...) the observant farmer and laborer, who have spent their lives in close contact with nature can be of the greatest help to the investigation" (Howard 1940, p. 221). I compiled a list of 67 organic growers from across Nova Scotia through the WWOOF (Willing Workers on Organic Farms) list, the NSOGA certified growers list, and the OCIA

certified growers list. After contacting farmers from these lists as well as people involved with the NSOGA administration, I was put in touch with a host of other organic farmers who did not appear on any of these lists. In March 1998, I attended the NSOGA Annual General Meeting and Conference in Halifax. It was a chance to see first-hand what the issues were within the association (NSOGA), as well as to meet organic farmers to discuss my research plans and to judge how much interest there would be from farmers for my study.

After these initial contacts, I constructed a questionnaire with a cover letter explaining my research (see Appendix E) that was mailed or hand delivered to the 67 organic growers during the Spring of 1998. This questionnaire consisted of mostly straightforward questions about the farm operation, as well as a few open-ended questions on some debated issues, such as certification. Respondents were given two weeks after receiving the questionnaire to return it. A first reminder was mailed after two weeks to the respondents who had failed to return their questionnaire at that time. A second reminder was sent at the end of the alloted time period to give respondents a last chance to send in their questionnaire. This produced 41 completed questionnaires, as well as eight unusable replies because some respondents were not farming anymore, only had a family garden, or did not consider themselves "organic". The response rate is then 69.5%, if we take into account the unusable replies; 61.2% without them. These very high rates of return can be explained by farmers' commitment to promote their way of farming, and by the lack of research on the subject.

To complete the research, I undertook field work from May 10 to June 10, 1998. During this time, I conducted 27 interviews, of which 22 were audio-taped. The respondents

who were audio-taped were asked to fill out an informed consent form to permit the use of the transcribed material (see Appendix C). The interviews occurred on 27 different organic farms across mainland Nova Scotia (see Figure 1.2). The farmers interviewed were chosen according to their availability, their interest to be interviewed, as well as by their distinctiveness, and by recommendation from other farmers, so that a diversity of farmers with different operations, histories, and points of view would be included. I realize that this way of choosing farmers may have produced a group of interview respondents who are sympathetic to the same causes and who hold similar views on organic agriculture. A more random method of choosing interview respondents might have shown very different results. The interviews lasted from 30 minutes to 3 hours, usually around the kitchen table, but also in more unusual locales like the greenhouse, the barn, the garden, and the egg-grading station. Most questions were answered by the main farm operator, but in the case of two operators for the same farm, both were invited to respond. A list of 17 open-ended questions previously reviewed by the Carleton University Ethics Committee, as well as the Geography Department Ethics Committee, served as guidelines to structure the interviews. The interviews also allowed the farmers to expand on the material compiled from the questionnaires. From these 17 main questions stemmed another 10 additional questions that were asked to most farmers, as some issues that were important to the farmers had not been included in the original list of 17 questions, such as the language associated with organic agriculture (see Appendix D for list of questions). Interviews took the form of informal conversations during which similar themes were always tackled, but the respondents could

expand on the themes that they thought were important. After all the interviews were finished, the 22 audio-taped interviews were transcribed as completely as possible, by the researcher.

In terms of the written questionnaire results, the anonymity of respondents was completely assured, because the information was tabulated in a collective form. During the personal interviews, however, the respondents were given a choice of having their "real" names used or not. All of the interviewed respondents chose to have their actual names associated with the transcribed material, mainly for the following reason: the organic community in Nova Scotia comprises a relatively small number of people who generally know each other, and are already aware of each other's opinions. I have thus decided to use the actual names of respondents throughout this thesis. I believe this practice transmits a more intimate feeling to the transcribed material. As each farm is unique, it is therefore valuable for the readers to be able to build up an image of each farm and farmer. In addition to the actual names, other personal information (place of residence, family structure, farming background, etc.) is also given in certain instances, in order to more fully comprehend each farmer's situation.

During this field research, I did not claim to be an objective observer. I was sympathetic to the farming profession, and particularly to organic farmers, beforehand. I set out to present a wider picture of organic farming than what was offered in existing studies, and I chose to do this by allowing the farmers to express their own cases. I realize that this study is one-sided in that it does not contrast organic farmers experiences with those of other types of farmers. All of the choices that I made in relation to my research topic, to the way

I carried out my research, and to the themes that I retained during the writing of this thesis, were deliberate. One of those choices was to consciously become involved with the respondents and to share their daily lives and work, as favored by Berry:

> He (the researcher) likes and respects them (the subjects), which carries him far beyond the role of 'objective observer', and appropriately complicates his insights and his tasks. This makes him, so far as I am concerned, many times more trustworthy than any 'detached scholar' (Berry , 1981 p. 41).

This allowed for a deeper understanding and respect, on my part, of the respondents' views, problems, and goals, and it encouraged them to share these with me more openly. This experience also yielded a wealth of information from which to more effectively analyse the situation of organic farmers than if only a partial investigation had been done.

1.4.3 Limitations of the study

The first limitation associated with my research is the time of year. The written questionnaires were mailed and the personal interviews were carried out during the busiest time of year for farmers, the spring. This may explain why some of the questionnaires were not returned, as well as account for some farmers' reluctance to grant interviews or their time. Also, some interviews were hurried because of time constraints on the part of farmers who had to take advantage of the good weather to do their plowing or planting.

Another limitation is geographical. As I only had limited time and resources, I chose to only interview farmers on mainland Nova Scotia (see Figures 1.2 and 1.3). There is, however, a fairly important organic community in Cape Breton to which seven questionnaires were mailed. The issue of having a small number of organic farmers spread

out across the province with the main concentration of growers being in the Annapolis Valley, is also problematic for the NSOGA, as most of their activities take place in the Annapolis Valley or in Halifax, and the executive is made up of people mostly from Central Nova Scotia. This results in farmers living outside the concentration zone feeling isolated and uninterested. I realize that I am contributing to this centralization and isolation by not going to Cape Breton to observe how things are different for organic farmers there.

A further important limitation in my study is the language that was used to describe the activity of producing food.

"Well, we're not really farmers."
(Julia Cooper)

First of all, in my preliminary material (introduction letter, cover letter, and written questionnaire), I used solely the terms "farm", "farmer", and "farming". This was met with some resentment by the organic community, because many respondents associated these terms with large-scale, conventional operations. Some respondents simply did not want to be associated with the traditional connotation of being a "farmer" and living on a "farm". Others did not consider their operation big enough to be considered a "farm", or their work intensive enough to be called "farmers", and this resulted in the loss of possible respondents who did not feel that they qualified for my study. The terms "agriculture", "agriculturist", and "agricultural operations", do not seem to fare any better because they are also often linked with conventional monocultures and with scientific research. The preferred terminology in the community seems to be "organic growing" and being an "organic grower". The use of these last terms is also contentious since they are not well understood

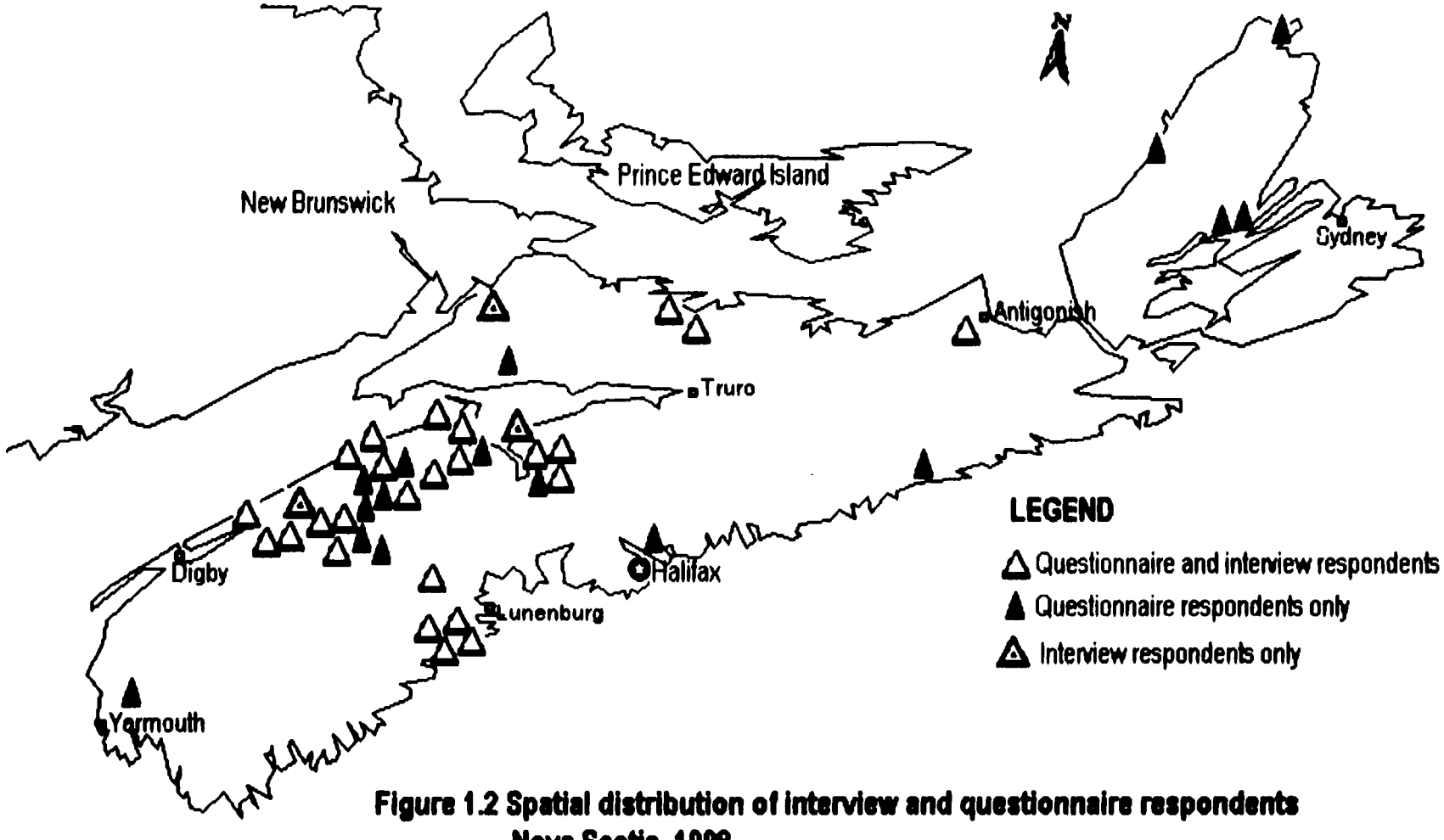


Figure 1.2 Spatial distribution of interview and questionnaire respondents Nova Scotia, 1998.

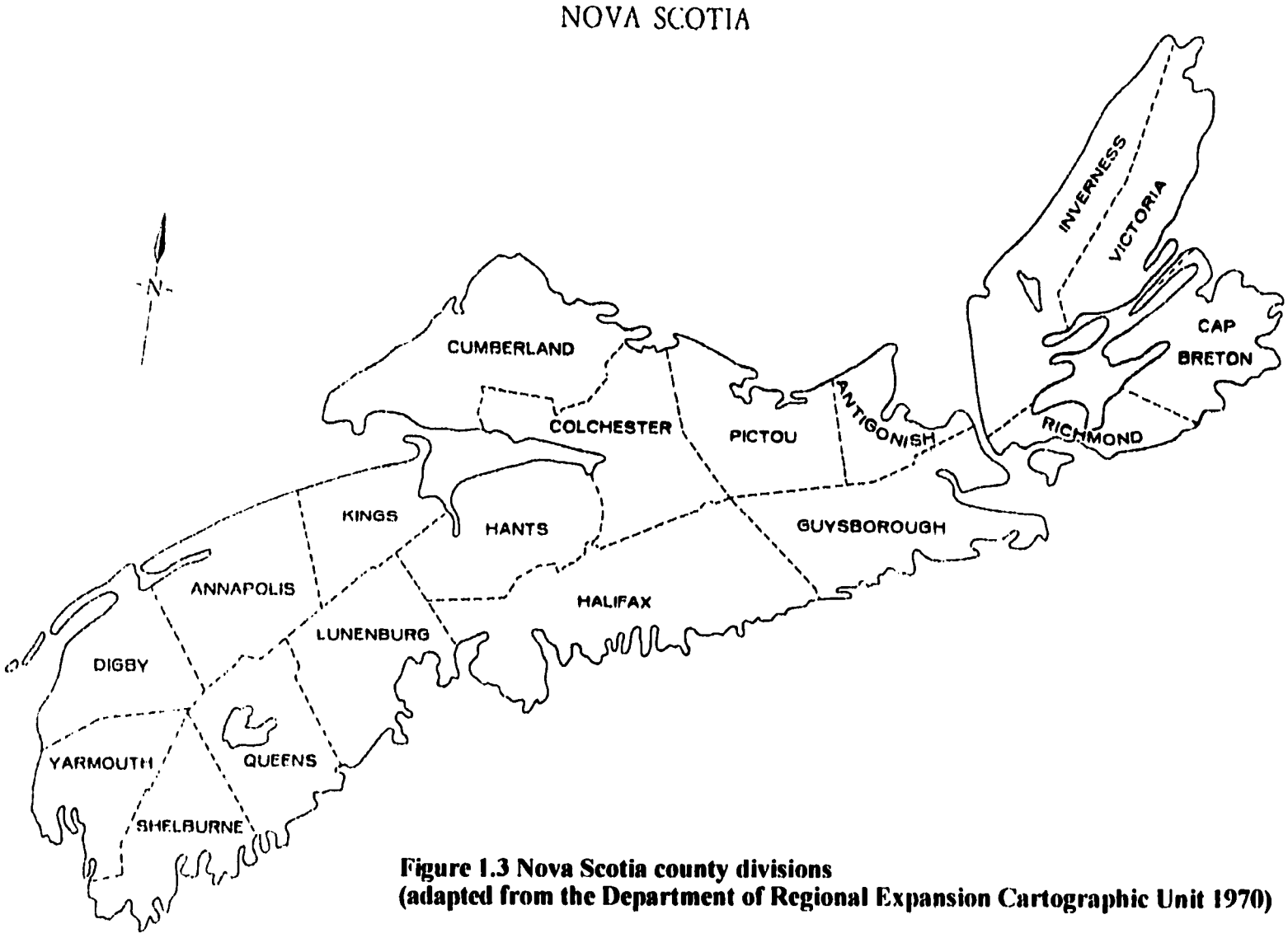


Figure 1.3 Nova Scotia county divisions
(adapted from the Department of Regional Expansion Cartographic Unit 1970)

by the general public, and they might be taken less seriously than "farming" or "agriculture". That is why I have tried to vary the vocabulary used during the personal interviews, as well as in writing this thesis, in order to include all respondents, and to take personal preferences into account. However, any future research on the subject should use the "grower" and "growing" terminology.

Another problematic use of language is the word "organic". Many respondents view this term somewhat negatively, saying for instance that it has been overused and has lost all its meaning. Others are concerned about new definitions of "organic" being regulated by American and Canadian governement bodies. Some respondents do not have a problem with the word, but many prefer analoguous terms such as "ecological", "ecosystem-based", or "sustainable". This issue is explored more fully in Chapter 3.

Finally, it is important to point out that the views and information presented by these farmers are solely intended for the purpose of understanding and identifying the complexities associated with organic farming in a geographically marginal setting. These findings will not be generalized to organic farmers in other settings, or to all organic growers in Canada, but they will serve to shed some light on the experience of being an organic farmer in Canada, and particularly in Nova Scotia. A large proportion of the organic farmers in Nova Scotia were contacted by written questionnaire, and more than half of these farmers were interviewed, so that their positions and situations are reasonably representative of the organic experience in Nova Scotia. Also, by interviewing the farmers and spending time with them, I have gathered information that gives insights into their reality that would not have been disclosed by a purely statistical analysis or only written questionnaires.

Chapter 2: The literature on rural restructuring and agriculture geography: how it leads to research on alternative types of agriculture

2.1 - Rural restructuring and agricultural geography

Many studies in agricultural and rural geography, particularly since the 1980s, have focused on the transformation of rural areas, and on the consequences of this transformation for rural communities, agricultural activities, and rural employment. The term rural restructuring "has been widely employed to signal a distinctive break in the progress of many capitalist economies in the 1970s and 1980s, and the ensuing social and political consequences" (Marsden *et al.* 1993, p. 17). Most of the research on the subject adopts a structuralist approach, attributing these changes to national and international economic forces (Marsden *et al.* 1993, p. 20). For instance, Fuller and Bollman define the process of rural restructuring as, "Rural labor markets are being transformed as primary industries decline (or go offshore) and manufacturing becomes subject to the international division of labor" (Fuller and Bollman 1992, p. 201). Marsden and company criticize this narrow view, and propose a larger definition of rural restructuring that offers a more complete analysis of social, political, and economic changes in rural communities. Their description includes the dynamic relationships between "production and consumption, the commoditization of social and economic processes, (...) representation as a social and political process (...) and fourthly, the integration of property relations as a key structuring mechanism guiding change at the local level" (Marsden *et al.* 1993, p. 21).

In examining the proliferation of publications by Marsden and company, it seems that these researchers could be identified as the most influential in the field of rural

geography, at least in Britain, due to their constant critique of current views. Their basic framework seems to be the most conducive and suitable to discussions of 'bottom-up' styles of development in rural communities, as well as to research on alternative agricultures, such as organic farming, since they adopt a wide view that includes internal and external forces. There is, however, an important nuance to introduce at this point. How much of the organic movement can be attributed to the wider economic and political contexts (provincial, national, international)? And, how much did the organic movement, together with other grassroots or local groups, have an effect on rural restructuring? And, finally, can movements such as the organic movement develop independently of the wider economic and political contexts? A closer look at the research of the above-mentioned authors sheds some light on these *questions*.

In *Technological Change and the Rural Environment* (Lowe *et al.*, 1990), a group of researchers have looked at the technological changes that are occurring in rural areas and in agriculture, such as biogenetic developments, to try to understand how these changes have developed and how they can be regulated. They argue that these changes need to be examined in relation to the social and environmental transformations that are taking place alongside them (Lowe *et al.* 1990, p. 5). The changing role of research and development (R&D) in rural areas and in agriculture can be used as an example to illustrate this more holistic vision. According to Munton *et al.*, research and development in agriculture from the 1940s to the 1980s focused solely on new technologies to boost productivity and decrease the costs of production, without taking into account the social and environmental impacts of these technologies (Munton *et al.* 1990, p. 104). This unilateral approach has

come increasingly under attack since the 1980s as a result of sophisticated scientific research demonstrating the possible detrimental effects of agricultural technology, as well as of "a broader shift in policy and attitudes" from governments, industry, and the general public (Munton *et al.* 1990, p. 105). Consumer groups, environmental groups, rural activitists, farmers and others are now demanding that social, economic, and environmental considerations be key in future research and development in agricultural technologies (Munton *et al.* 1990, p. 119).

In the same volume, FitzSimmons looks at how the centralization of agribusiness supply industries, such as chemical fertilizer companies, as well as output industries, such as food processing operations, have increasingly put farmers in uncomfortable and subordinate positions (FitzSimmons 1990, p. 19). Many farmers have not accepted this new position with open arms, as FitzSimmons decribes: "The struggle of farmers to protect themselves against the pressures imposed by an increasingly dominant urban manufacturing (and finance capital) economy have been particularly intense at a time of agricultural crisis." (FitzSimmons 1990, p. 20). The crisis that is discussed is the environmental crisis, whereby the farmers' struggle includes concerns over the damaging effects of certain technologies in agriculture, and the search for sounder alternatives (FitzSimmons 1990, p. 25). Organic agriculture could be proposed as one of the sounder alternatives that could be viable in this situation, as the environmental impacts of this type of farming are generally lower than in conventional farming. In addition, because of the potential for organic farming and organic products to bypass the increasing concentration of upstream and downstream agricultural

industries, these farmers can remain more independent and in control of their decision-making.

Regulating Agriculture (Lowe *et al.* 1994) continues the discussion of changes in rural communities and agriculture, focusing on government regulations. As in research and development, government regulations in agriculture were mainly productivist-oriented until the 1980s. Since the beginning of the 1980s, however, what is happening is a "dismantling of state controlled or sponsored structures for the planning of agriculture, a move towards more market-based forms of regulation, and a reconstruction of agriculture-trade-industry relations on an international basis transcending and eroding the integrity of national and regional systems" (Lowe *et al.* 1994, p. 1). Clunies-Ross and Cox use this change in paradigm to better understand the evolution of the organic movement in Britain (Clunies-Ross and Cox, 1994, p. 54). With a journey from the beginning of the organic movement in the 1930s, through the post-war productivist years, and the resurgence of organic ideas during the dissatisfied 1970s, they argue that the situation has never been better for the organic movement to be heard:

> Taken together these concerns about the use of pesticides and fossil fuels, food quality and health, anxiety about the impact of modern agricultural practices on the environment, and the moral and the economic inequity of persistent surplus production have contributed to a greatly enhanced context of presentation for organic ideals (Clunies-Ross and Cox, 1994, p. 61).

These rural geography studies developed independently of the organic agriculture movement and of the classic research in organic agriculture. Their main offering seems to be to supply the economic and political context for the development of organic agriculture,

in the framework of rural restructuring. It appears that this massive rural restructuring, as well as the awareness of problems associated with conventional agriculture and the rapid industrialization of rural areas, might provide an avenue for organic agriculture to assume its presence, to be recognized, and to flourish.

2.2 Classic writings in organic agriculture and alternative agricultural issues

The first use of the term "organic" is attributed to Lord Northbourne in his book, *Look to the Land* (1940), in which he describes farming practices that today would be called "sustainable" or "ecological" (Harwood 1983; Scofield 1986; MacRae 1990). The basis for his agricultural system was that "the farm itself must have a biological completeness; it must be a unit which has within itself a balanced organic life. Every branch of the work is interlocked with all the others" (Northbourne 1940, p. 96). In addition to the equilibrium aspect of farming, Lord Northbourne also discussed other issues that became the foundation of organic farming, such as the importance of a healthy soil, the diversity and self-contained nature of farms that eliminates the need for external inputs, the adaptive quality of farm operations to local situations, and the dynamic nature of farms. These principles seem to have been developed by Northbourne as a criticism of industrial agriculture, and the problems associated with it, such as soil erosion. He maintained that balanced and dynamic farming, where the farm is viewed as a complete organism, was "real farming" (Northbourne 1940, p. 97).

Northbourne's inspirational book that set the stage for a new farming system that came to be known as "organic farming", as well as provided the reasons why this type of

system should be favored over the industrial model of agriculture, has been largely ignored in the alternative farming literature that followed. Another study, published in the same year as *Look to the Land*, is Sir Albert Howard's *An Agricultural Testament*. This book is frequently described as the classic, scientific work on soil health and fertility, and Howard is often referred to as "the father of the organic movement" (MacRae *et al.* 1989a; Tisdall 1992; Oelhaf 1978). Howard's books advocate reforms in agriculture, and were inspired by his work experience with alternative methods of agriculture in India during the 1920s (Tisdall 1992, p. 8). For Howard, a healthy soil is clearly a prerequisite for a sustainable system of agriculture, as the first line of his book is "The maintenance of the fertility of the soil is the first condition of any permanent system of agriculture" (Howard 1940, p. 1). He calls this system of agriculture "nature's farming", as it attempts to follow nature's example:

> Mother earth never attempts to farm without live stock;
> she always raises mixed crops;
> great pains are taken to preserve the soil and to prevent erosion;
> the mixed vegetable and animal wastes are converted into humus;
> there is no waste;
> the processes of growth and the processes of decay balance one another;
> ample provision is made to maintain large reserves of fertility;
> the greatest care is taken to store the rainfall;
> both plants and animals are left to protect themselves against disease
> (Howard 1940, p. 4).

Another pioneer of the organic movement, often associated with Sir Albert Howard, is Lady Eve Balfour (National Research Council 1989; Boeringa 1980). She is referred to as a soil conservationist since her work was also scientifically-based and her main interest was the preservation of healthy, fertile soils (Merrill 1983, p. 194). She was the leader of the Haughley Experiment in England, which began in 1939 and ended in 1969, an

experience which is credited as being the first agricultural research that was based on ecological principles (Balfour 1978, p. 18). She later wrote *A Living Soil* (Balfour 1943), and founded the Soil Association in England, a non-profit association with the goal of doing research on the interrelationships between "soil, plant, animal, and man" (Balfour 1975, p.186). Her approach to agriculture was similar to Howard's, as she viewed the farmer as cooperating with nature in addition to learning how to farm by observing the processes in nature (Balfour 1978). According to Lady Balfour, organic farming comprises much more than just certain farm practices, and this is illustrated by her emphasis on farmers' attitudes: "the attitude of the organic farmer, who has trained himself to think ecologically, is different. He tries to see the living world as a whole" (Balfour 1978, p. 23).

In North America, increasing interest in alternative methods of farming was evident starting in the 1930s. This was during the dust bowl period, which was characterized by widespread and heavy soil erosion. The ideas and practices developed earlier, in Europe, were examined and slowly adopted by certain farmers, associations, and even government agencies, especially in the form of biological controls of pests and weeds (Tisdall 1992, p. 8). At this time, J.I. Rodale, the "father" of organic growing in the United States and the founder of Rodale Press, published his book *The Organic Front* (Rodale 1948) and launched a new popular magazine called *Organic Gardening and Farming* in 1942 (a version of this magazine is still available today under the title *Rodale's Organic Gardening)*. These publications served to popularize the term organic, but at the same time led to a certain devaluation of the term, particularly by the scientific community who questioned the validity of his claims (MacRae 1990).

Another influencial book that promoted the advancement of organic agriculture is Rachel Carson's *Silent Spring* (Carson 1962). This study is not directly agricultural in nature but because of its discussion of the dangers of agricultural chemicals, such as animal and environmental health problems, it caught the attention of the agricultural community, as well as the buying public. Governments, the medical community, and various other groups, started examining the relationships between diet, lifestyle, and health. This was occurring at the eve of the environmental and energy crises of the 1970s, when problems relating to the dependency on fossil fuels, extreme rates of soil erosion, and increasing water, air, and soil pollution were increasingly discussed (Merrill 1983, p. 195). All of this formed the basis for the creation of a plethora of environmental groups, as well as a 'back to the land' and vegetarian wave (MacRae *et al.* 1989a, p. 3). Associated with these movements was a renewed interest during the 1970s from farmers, consumers, students, researchers for more sustainable agricultural practices, after a period of intense agrichemical use during the post-war boom period (Tisdall 1992, p. 8).

Research on alternative methods of farming blossomed during the 1970s in North America. Lockeretz *et al.* began their long-term study on grain farms in the Corn Belt of the United States to determine whether organic farming was as economically profitable as conventional farming. They found that organic farms experienced lower yields than conventional farms, but that this was counterbalanced with lower production expenses due to reduced chemical use (Lockeretz *et al.* 1976, 1978, 1980, 1981). Other researchers during this period adopted a similar approach in trying to distinguish between organic and

conventional farming, as well as to compare their relative productivity in terms of economic returns and crop yields (see Oelhaf 1978; Berardi 1978).

Another type of research that re-appeared at this time was concerned with identifying the problems associated with industrial or conventional agriculture, and how alternative agricultures could develop as a response to these problems. Writings condemning industrial agriculture had appeared much earlier with the ideas of Lord Northbourne (1940), Ehinfried Pfeiffer (1938), Howard (1940) and Balfour (1943) and others, but continuing research on the subject had virtually stopped from the 1950s to the 1970s, the period when the use of agrichemicals was most seriously encouraged by both governments and the petrochemical industry (Merrill 1983, p. 195). The context of the late 1970s and 1980s was ripe to respond to the multiplying problems in agriculture, from soil erosion to the degeneration of rural communities. Research institutes and resource centres, such as the Land Institute established by Wes and Dana Jackson in Kansas in 1976, to study perennial grain crops, as well as the Ecological Agricultural Projects at McGill university, which was inaugurated in 1974 in Montreal, were established. Conferences took place across the continent with the aim to promote alternative agricultures to the agricultural and academic communities, as well as to governments (Tisdall 1992, p. 8). Many research articles, mainly from the academic community, followed to denounce conventional practices and to praise alternative methods (see Manners 1974; Rodale 1983; Troughton 1982; Jackson 1980; Hill 1985).

2.3 Recent studies in organic agriculture in the Canadian context

In Canada, the development of the alternative agriculture movement closely followed the development of the evolution of this movement in the United States and in Europe, with the introduction of a growing body of literature on the subject from these places into Canada. Many experts in the field, such as Dr. Ehinfried Pfeiffer, also came to Canada during the 1950s to promote their ideas, and to assist in organizing the Canadian organic movement (Hill *et al.* 1992, p. 76). As a result of these events, the Canadian Organic Soil Association was founded in 1953 (later renamed The Land Fellowship). This association was led by two vocal activists, Christopher Chapman and Spencer Cheshire, who attempted to educate the public and convey the virtues of more sustainable types of farming, with publications and films (Tisdall 1992, p. 8). Although interest was minimal from the likes of government agencies and agricultural organizations, many farmers started paying attention, especially in the province of Québec. This was due to the important European community in the province that had adopted alternative practices or had been involved with the movement in Europe, before settling in Canada (Hill 1983).

Sustainable and alternative agriculture was much slower to develop as a research field, than as a movement, in the Canadian context. The earliest works on the subject appeared after the establishment of the Ecological Agriculture Projects (EAP) at McGill's MacDonald College in 1974, led by Dr. Stuart Hill. Since the early 1970s, Stuart Hill has been a strong supporter of organic agriculture, publishing numerous research articles, presenting papers on the subject around the world, and setting up research and resource facilities to facilitate awareness. The driving force behind his extensive research seems to

be his firm belief that the Canadian food system needs to be transformed. With the current food system being focused on power and productivity, he argues that it can only "lead to the degradation of person and planet" (Hill 1985, p. 32). Hill therefore promotes a food system based primarily on nourishment, and secondly on "fulfillment, justice, flexibility, evolution and sustainability", in which the difference between basic needs and superfluous wants is clearly defined and integrated. (Hill 1985, p. 32).

His approach is innovative in that he believes people's attitudes and values must change for organic agriculture to be widely accepted and practised:

> My position is that there are many inter-related local and global problems, and many of these have reached crisis levels. They are all caused by my species including me. They can only be solved and prevented by my species, including me, and this requires that I change the way I feel, think and act (Hill 1988, p. 2).

He also contends that the most important barrier to ecological agriculture is psychological, what he calls "human beingness". According to Hill, children who are oppressed when growing up in the family environment will grow up disempowered, while children who are unoppressed and are allowed to be spontaneous during childhood will become empowered adults. He explains the effect this difference can have on agriculture:

> The implications of this with respect to agriculture and diversification are that whereas the disempowered individual will be more likely to be attracted to highly simplified, and therefore readily controllable, large, resource input and technology intensive farm operations, the powerful individual will be freer to design and manage agroecosystems to achieve more long-term, less spectacular goals such as nourishment, fulfillment, justice, flexibility, evolution, efficiency and sustainability (Hill 1987, p. 95).

Looking at psychological factors as determining factors in the adoption of alternative

agricultures is valuable in an interrelational approach. However, the fact that Hill oversimplifies the experience of childhood seems to be in contradiction to this type of approach. Chilhood cannot simply be divided as "oppressed" and "unoppressed". Many factors, such as family composition and history, have to be taken into account to start to understand how psychology could influence agricultural and life choices. Human nature is as complex as the cycles of nature, and harbors mysteries that have yet to be uncovered.

During the 1980s and 1990s, the subject of alternative agricultures in Canada has been researched more fully, and by researchers in various disciplines (Tisdall 1992, p. 8). The literature on sustainable agriculture is nevertheless very limited and fragmented, especially compared to the American or British writings on the subject. The Canadian studies in this field are very diverse, they adopt various approaches, they do not necessarily follow similar themes, and most are not comprehensive in nature. It is rare to see research from a holistic approach, other than Hill's work, even if the subject of study is undoubtedly interdisciplinary. An additional difficulty in assessing the studies is the lack of agreement when using the terms "organic", "alternative", "ecological", "sustainable". Keeping these observations in mind, I have grouped most Canadian writings on alternative agricultures into five broad themes.

The first group of writings is concerned with defining the concept of sustainable agriculture (Reveret *et al.* 1981; Nault 1994). Some studies define sustainable agriculture in terms of specific goals, namely environmental, social, economic, budgetary, and political goals (Greenwood 1995; Brklacich *et al.* 1991; Bowler 1992). These goal-oriented definitions are criticized by others who argue that it is not clearly demonstrated how the

goals can be achieved. These other authors adopt a definition of sustainable agriculture that is based on specific practices, such as crop rotations, and composting (see Tisdall 1992; Rutherford *et al.* 1992). There still seems to be much debate concerning the definition of sustainable agriculture, as well as in situating this type of agriculture within other types of agriculture, such as organic, ecological, and alternative farming. As mentioned previously, these terms, as well as many others, are often used inconsistently, as well as interchangeably, which is problematic when reviewing the studies.

The second group of writings focuses on the negative impacts of conventional agriculture to justify the need for the change to a more sustainable agriculture in Canada (Pierce 1992; Reveret *et al.* 1992; Troughton 1991a; Troughton 1986). Reveret *et al.* present conventional agriculture as linear and based on an industrial model, that results in an artificial environment, while alternative systems are cyclical and ecosystem-based. (Reveret *et al.* 1992, p. 51). They argue that the energy and environmental crises have encouraged alternative types of agriculture to develop in Canada. However, many barriers exist to fully developing this potential, such as the lack of information on the subject and the lack of government support. (Reveret *et al.* 1992, p. 58). Troughton, on the other hand, proposes that the impetus for a movement toward more sustainable farming is based on the fact that industrial agriculture is destroying its very foundation:

> Modern, industrial agriculture, despite its currently pervasive influence, is a relatively new phenomena *(sic)*. While it can claim success in terms of its own goals of economic efficiency and technological application, it has also clearly demonstrated the antithesis of its own dialectic, namely, that ecological disruption is a necessary consequence (Troughton 1991a, p. 155).

The third theme reflected in the literature on sustainable agriculture is the feasibility for alternative types of agriculture, like organic agriculture, to be economically, as well as ecologically sustainable in Canada (see Hay 1988; Ferron 1994; Crosson 1991; Rutherford *et al.* 1992). Some studies focus on comparing the yields and economic returns between conventional and alternative agriculture (Paillat *et al.* 1994; Sellen *et al.* 1994). Sellen conducted a study on experimental field plots in London, Ontario aimed at comparing financial returns of vegetable production during the transition from conventional to organic farming. He found that the transition years are usually not profitable, but that economic returns might increase after the transition. The most important element in Sellen's study is his discussion of the limitations that are associated with this type of research, such as small test plots, and heterogeneous soil conditions. The validity of his results and estimates, as well as the results of similar studies, are questioned because of fluctuating environmental factors such as the weather, because of the short-term focus of these studies, and because certain factors such as human and environmental health are not taken into account (Sellen *et al.* 1994, p. 21). Numerous market studies have also been done with the collaboration of Agriculture Canada to assess the market and the demand for organic products (Agriculture Canada 1988; Canadian Organic Growers 1990). The study conducted by Agriculture Canada concluded that "increasing awareness, understanding and availability of organically produced agricultural products will serve to strengthen an emerging market" (Agriculture Canada 1988, p. 66).

The fourth group of writings focuses on policies pertaining to sustainable agriculture. Pierce (1992) argues that specific government policies are needed for sustainable agriculture

to be widely adopted. These policies must, to be beneficial, address issues of rural sustainability and cohesive land use. In another study, Filson argues that government policies will not be viewed and accepted uniformly in the farming community, but will vary according to demographic factors and the type of agriculture practised (Filson 1996). In his study of Ontario farmers, Filson found that the more educated the farmers, the more they supported environmental policies and the preservation of small farms. In addition, the larger acreage the farmers had, the less they were concerned with sustainability and the environment. (Filson 1996, p. 176). Hill's efficiency-substitution-redesign concept is proposed as a framework to bring about the government support needed for farms to undergo a successful transition to economically, socially, politically, and ecologically sustainable agriculture. This concept demonstrates that conventional agricultural systems can be made more efficient by decreasing environmental damage, for instance by using fewer chemical pesticides (efficiency). Then, harmful practices and products can be replaced by more "environmentally-friendly" alternatives. In this case, chemical pesticides could be replaced by biological pest control (substitution). And finally, with a change in values and needs, agricultural systems can become diversified, self-sufficient, and self-regulating (redesign) (MacRae *et al.* 1990, p. 77). The authors argue that this process will assist governments in developing policies that will result in long-term sustainable agriculture. (MacRae *et al.* 1990, p. 88).

The last group of works consists of specific case studies of alternative agriculture in various parts of Canada. The most numerous deal with Québec cases, as the greatest number of organic growers in Canada are found in this province (Desautels 1991; Nault 1994; Paillat

et al. 1994; Reveret *et al.* 1981; Ferron 1994), but there are also a few case studies of Saskatchewan (Henning *et al.* 1991; Molder *et al.* 1991), and other papers which present a variety of case studies from across the country (Tisdall 1992). These studies are situated at the two extremes: they are either very technical in nature, dealing with specific practices, crop studies, and returns, such as the above-mentioned studies on Saskatchewan, and most of the studies on Québec, or they are anecdotal in nature, with no analytical substance, such as Tisdall (1992).

2.4 "Farmer-based" literature: A rich resource written by people at the source

It is clear that the academic work on alternative types of agriculture has much to offer in terms of situating this type of farming in its larger contexts, of increasing our understanding of the important concepts associated with it, and of furthering our knowledge of the economic, political, and environmental issues associated with alternative agriculture, but not necessarily in an integrated manner. The main lacunae that have been identified are the virtual neglect of social issues, the role that alternative farmers and farms could have in rural communities, and the obstacles that exist for such farmers at every level, from the farm-scale to the market-scale. I think that the "farmer literature", which is often overlooked by the academic community, but cherished by the farming and gardening communities alike, offers much in this regard. In opposition to government published farming handbooks, and sterile studies comparing crop yields or soil fertility, many of the books or essays written by farmers, particularly organic farmers, exhibit a more complete examination of farm life. Instead of just presenting a technical "how-to" of farming methods and practices, these

authors also discuss lifestyle issues, the motivations, the difficulties, and the choices that are part and parcel of farming.

During my conversations with farmers during the Spring of 1998, many mentioned their love of reading and their reliance on recent organic farming literature written by farmers. The recurring name is most definitely Eliot Coleman. When asked where they get their information on organic farming, here is what a few of them answered:

"The Eliot Coleman thing. A lot of people went for that, ourselves included. They (his methods) are quite good, but they're really labor-intensive"
(Laurie McGowan)

"(...) Eliot Coleman, he's a major...actually his book is a bible for most organic growers."
(Janet Wallace)

In his two most popular books, *The New Organic Grower: A Master's Manual of Tools and Techniques for the Home and Market Gardener* (Coleman 1989) and *The New Organic Grower's The Four Season Harvest* (Coleman 1992), Coleman draws on his more than 25 years experience as an organic market gardener in Maine, to present both his philosophy of farming and his practical methods, from soil preparation, to harvesting, to successful marketing. His philosophy is simple, but it includes many subtleties: "...organic methods are simpler and work better"; "Basically, organic gardening means a partnership with nature." (Coleman 1992, p. 14); "Any rational food production system will emphasize the well-being of the soil-air-water biosphere, the creatures which inhabit it, and human beings who depend on it." (Coleman 1989, p. 220). Because his New England methods are compatible with most Canadian climates, and his encouragement of small-scale farming

relates to most Canadian organic farmers, many organic farmers follow his methods and are inspired by his lifestyle.

Richard Langer, another farmer from New England, wrote an influential book during the 'back to the land' movement in 1972, called *Grow It!* (Langer 1972). His simple, practical approach inspired many people to try their hand at farming in a more ecologically-sound manner, or apply certain principles to their backyard garden. His main focus, however, was aimed at giving "a roadmap, a handbook for survival on the farm" to people who were new to rural and farming life, in other words, to urban dwellers moving to the country (Langer 1972, p.xxi). He explains that "perhaps not since the fall of Babylon have so many city dwellers wanted to 'return' to the country without ever having been there in the first place", which often results in failed attempts because of a lack of information and guidance for these newcomers (Langer 1972, p. xxi). Paul Colville, one of my interviewees, identified with this image and this book, when he and his wife Ruth started out farming in Vermont during the early 1970s, after leaving jobs in New York city:

"When we moved, we had some idea of what was involved, but I can remember driving around a field with a book that was popular in those days called Grow It! (Langer 1972). If you look in that book under tillage, it will tell you how to harrow a field, and I can remember driving around an about 5 or 6 acre field, harrowing it and being very proud of myself that I did it. So, we started there."
(Paul Colville)

Some farmer-based writing concentrates less on farm practices and more on the values and beliefs that nourish organic growing. Jim Bender and John Bede Harrison both offer a critique of conventional farming, and a comparison between organic and conventional growing, in order to reveal the underlying principles of organic farming, such

as following the cycle of nature (Bender 1994; Harrison 1993). Both authors rely on their experience as farmers who converted from conventional to organic growing to praise the benefits of this type of growing, as experienced first-hand:

> Over half a century of organic growing has convinced me of the soundness, stability and permanence of organic culture (Harrison 1993, p. 13).
>
> Pesticide-free farming is prepared, even at its inception, to effectively address a variety of agronomic challenges. These include nutrient recycling, soil conservation, efficiency, disrupting pest cycles, and, of course, the concept of sustainability (Bender 1994, p. 120).

During my research, I have discovered several more obscure works written by farmers that demonstrate the conviction of alternative farmers in their methods and their way of life. *Harmonic Farming: A Love Style* written by Werner Gysi, an immigrant to Canada from Switzerland, and *Rebirth of the Small Family Farm* by Bob and Bonnie Gregson, 'back-to-the-landers' in Washington State, are both published by the farmers' own publishing companies, and they recount in detail the trials and tribulations of farming ecologically (Gysi 1995; Gregson 1996). Their aim is to encourage as many people as possible to farm, and they offer much advice on how to make it work, as well as how to avoid the common mistakes that they made. The approach taken in each book differs greatly, in that Gysi's is much more spiritual, while the Gregsons put more emphasis on economics. Gysi argues that using organic practices is not enough, that you need to connect profoundly with nature and develop a respect and understanding with her, as well as finding a spiritual connection in your life that relates to the farm work (Gysi 1995, p. 14). The Gregsons, on the other hand, draw on their background in business to develop a business

plan for their two-acre farm, that is based on the "Subscription Approach", an approach closely resembling Community-Shared Agriculture or CSA, as explained in Chapter 4 (Gregson 1996, p. 9).

These writings were definitely an inspiration when constructing my research, because they do not try to artificially separate integral pieces of the puzzle. In their approach, they can much more successfully convey the reality of farming than the previously-discussed literature. However, a holistic conceptual framework, an analysis of complex microeconomic and macroeconomic issues, as well as yield and income comparisons between conventional and organic farmers, are not often found in the farmer-based literature. I therefore argue that many types of research, and studies are needed to complement each other in this relatively new research field, and in this type of study.

2.5 Interdisciplinary American Visionaries

Two other influential authors in the field of rural and agricultural studies that merit mention are Wendell Berry and Wes Jackson. I place them in a separate section because their work is interdisciplinary and defies categorization. Both are based in the United States, but their ideas seem to be applicable to any industrialized country with agricultural problems. Also, many of the farmers I interviewed mentioned being inspired by these authors, their views and philosophies on life and farming.

Wendell Berry truly demonstrates a holistic vision in that he looks at rural life and agriculture in relation to social values, culture, economic system and beliefs, governement and its policies, the natural environment, education and history. He is a farmer himself, a

university professor, and a writer of academic essays, as well as fiction and poetry. He is a strong defender of small-scale farming and organic farming, which he believes are the most benign ways to farm that are available at the moment:

> If all the farms in the country were managed organically, both our people and our land would undoubtedly be healthier and there would be a considerable ramification of the benefits (Berry 1977, p. 194).

Another recurring argument with Berry is that the industrial economy is devastating to agriculture and to rural communities because it cannot possibly understand and take into account all of the natural processses and elements that are active on a farm. As a result, all of these procedures are seen as isolated from each other when, in reality, they cannot be separated because they all need each other, and they all work together:

> The weakness of the industrial economy is clearly revealed when it imposes its terms upon agriculture, for its terms cannot define those natural principles that are most vital to the life and longevity of farms (Berry 1987, p. 65).

A longtime friend of Wendell Berry, Wes Jackson, co-founder of The Land Institute in Kansas, also strongly defends agriculture and rural communities, but in a more pragmatic and scientific manner: "By good farming, I mean practices that don't consume ecological capital or otherwise degrade the landscape" (Jackson 1984, p. 208). To counter the problems associated with intensive, large-scale, industrial agriculture, he suggests a bio-technical fix "based on mixed perennial seed-producing plants that would make it easier for humans to solve many problems in agriculture at once." (Jackson 1980, p. 3). Jackson's Land Institute has undertaken numerous studies on perennial crops, in order to demonstrate how these can be more sustainable than the present annual crop farming. In contrast to

Berry, he argues that organic farming is not good enough as a long term solution because it does not fully comprehend or consider all the "subtle intricacies of the problem", in other words, it tends to oversimplify the situation (Jackson 1980, p. 85). Jackson campaigns for a new agriculture with new principles and crops, that will easily be adopted by farmers who are concerned about environmental issues and who are already following nature's cycles. Unlike Berry, he does not believe in settling for the "best" agriculture that is already known - organic farming - but argues for the need to develop a type of farming that will go beyond pre-conceived ideas of what good agriculture is (Jackson 1980, p. 86).

These two authors illustrate two very important and diverging dynamics that are present in the organic community:

1- those who are confident that what they believe in and what they're doing is right, while the system (economic, political, social) is the problem and the thorn in the side of agriculture, like Berry.

2- those who are concentrating their efforts at trying to change and make things better at the base, at the farm and community level, and not worrying too much about the system that may constrict their actions, like Jackson.

These two dynamics may seem to be in opposition to each other, but they should not be viewed as such. They rather exemplify two conceptions of the agricultural situation that are on a continuum. It would be difficult, for example, to place each interviewed respondent into one of these categories, even if most farmers show tendencies toward one or the other. This categorization is not explored further in this thesis, but would be an excellent starting point for research on organic farmers in the future.

2.6 Other important links with organic agriculture in the literature

After looking at how the literature on alternative agricultures has developed, we can now examine other themes in the literature that are closely related to this topic. Looking at these wider interrelations is important, as the activity of organic agriculture cannot be understood in isolation, solely as a practice separate from everything else going on around it. The way organic agriculture is defined, as seen previously, as well as the way organic agriculture is practised, promotes this larger view. Organic agriculture is part of a system that includes the natural environment, the rural community, the economic market, and so on. It is also a system in itself, since every part of the organic operation, such as the soil, the farmer, and the finances, are seen as interrelated and as working together to achieve a balanced system.

Smit and Brklacich adopt this systems-view by emphasizing that rural areas are made up of numerous interconnections that should not be artificially separated when studying them, or when building up policies. As these rural systems "involve complex interlinkages among and within biophysical and socio-economic components and processes", organic agriculture can be seen as working within this system (Smit and Brklacich 1989, p. 405). Organic farming is thus related to issues such as social cohesion and rural development. These links are rarely mentioned in the literature, outside of farmer-based writings and the work of Berry and Jackson discussed in the previous section. Most research on organic agriculture tends to concentrate on one aspect of this activity, such as yields and economic returns in organic farming (Paillat *et al.* 1994; Sellen *et al.* 1994), or on the government policies needed to support this type of farming (Pierce 1992).

There are, however, hints of interlinkages between alternative agricultures and rural development in recent geographical writings. Like the term organic agriculture, rural development has been defined in various ways in academic and government studies. In its most complete form, rural development encompasses many types of development and shares many of the same goals of organic farming, such as environmental well-being, social cohesion, and long-term economic sustainability. Some authors also add the fact that rural development should be suited to the local resources of the community, and should be carried out, as much as possible, by the rural residents:

> The development of human capacity in rural areas to meet the human needs and to realize the full potentials of rural people within a framework of universal human values, the context of the specific situation and environmental limits (Clemenson *et al.* 1983, p. 18).

Troughton has argued that alternative agricultures will be more conducive to sustainable rural development (socially, economically, politically, and environmentally) than conventional agriculture (Troughton 1986, 1990). Other writers have stressed that large-scale, commercial agriculture hinders successful, long-term rural development because the number of these commercial operations is declining and the remaining operations are increasing in size, in order to have a sufficient volume for national or international distribution. This intensification and specialization often create increased isolation in rural communities, and do not contribute to economic, social, or environmental well-being (Caldwell 1995, 1989; Beus and Dunlap 1990; Troughton 1990).

In contrast, organic agriculture encourages a diversity of operations and operators, which may lead to economic stability and social diversity in rural communities. Organic

operations favor a more localized distribution of their products and they are easily linked to other industries in the community, such as natural food stores, so that rural residents are not isolated from the farming industry. In addition, organic farms are inherently concerned with the long-term ecological sustainability of their land and the surrounding environment, so that they adopt practices which reflect this, and they contribute to the environmental well-being of the entire community.

Issues such as the social implications of organic farming, and of organic farming as a social movement, are seldom addressed in rural studies, geographical studies, or organic farming reports. Youngberg first suggested in 1978 that organic farming was a social movement because of the large number of popular publications and organizations associated with it (Youngberg 1978). Foster and Miley developed this idea further by arguing that the organic farming movement is quite different from other agricultural movements because it is composed of marginal farmers, and it comprises a large number of regional organizations, instead of a large, central body (Foster and Miley 1982, p. 37). These authors also believed that organic farming "is but one facet of a broader response to the contradictions of capitalist production" (Foster and Miley 1982, p. 44), along with the environmental movement and the native-rights movements. This may be the case to a certain extent, especially since organic farming gained increased support and recognition when it became associated with other protest movements during the 60s and 70s. However, organic farming is not only an anti-establishment social movement. It is also related to human health, personal values, spirituality, economics, and so forth. The reasons for practising organic agriculture, and for following the organic movement, have evolved since the 60s, so that a multitude of people

are now involved in it for a variety of reasons, as seen in the following chapter.

Part 2 - Organic farmers' ecosystems: Let's link all this information together

Chapter 3 - Who is doing it and why?

3.1 Organic growing in Canada and in Nova Scotia

3.1.1 The extent to which organic agriculture is practised in Canada and in Nova Scotia

The 1996 Census of Agriculture defines a farm as being an agricultural holding that produced at least one of the following intended for sale: crops, livestock, poultry, animal products, greenhouse/nursery products, mushrooms, sod, honey, and maple syrup products. Christmas tree farms and commercial poultry hatcheries were also included for the first time in 1996. It can therefore be assumed that most organic farmers in Nova Scotia would have been included in the last Census of Agriculture since the majority intended to sell at least some farm products (organic 'gardeners' were not included in this study). With the total number of census farms in Nova Scotia being 4453 in 1996, and the conservative estimate for the number of organic farms in the province being 100, organic farms would then comprise approximately 2.2% of total farms in the province (assuming they all filled out a Census of Agriculture questionnaire).

There is no organic category in the 'farm type' question on the census, but it can be assumed that most of the organic farms would be identified as 'Miscellaneous specialty' or 'Other Combination' because of their diversified natures, with possibly a few others in each of the 'Vegetables' and 'Fruits' categories. It is interesting to note that the number of farms in miscellaneous specialty, the vegetables, and the fruits categories show rapid increases from 1971 to 1991 in Nova Scotia. The volume of vegetable production, for example, has

more than tripled since 1971 (Statistics Canada 1992a, p. 20). Vegetable growing has always been significant with organic growers, and this is also apparent in Nova Scotia, where 80% of the 41 questionnaire respondents reported vegetable growing on their farm. The development of organic farming in Nova Scotia can be partly linked to the increased demand and popularity of vegetable growing in the province, and in the rest of the country.

In Nova Scotia as well as in the rest of Canada, it is difficult to judge how many farms currently consider themselves organic, especially since many farms are not 'certified organic' and not officially recognized as organic. The Census of Agriculture does not compile information on this type of farming. The only information available is the number of certified organic growers compiled by certifying bodies. According to a study conducted by Agriculture Canada and the Canadian Organic Growers in 1990, there were approximately 585 certified organic farms recognized by a certifying body such as OCIA, in Canada. The number of certified organic growers then rose to 1174 in 1992 and 1724 in 1996 (see Table 3.1), the last year of available data on the number of organic farms (Macey 1997, p. 27). The largest number of organic growers is found in Québec, followed by Saskatchewan, British Columbia, and Ontario (see Table 3.1). Québec and British Columbia are the two provinces which seem to have the most favorable social climates for the development of organic agriculture. They are the only two provinces with provincial certifying bodies, and there seems to be more public and government support for alternative types of agriculture (Canadian Organic Advisory Board 1997). Jennifer Scott offers this explanation for the popularity of organic growing in Québec:

"Organic is much more vibrant in Québec, much, much, much, and perhaps...I may be generalizing, but perhaps it's a function of how people see food, and how important food is in their lives. In English-speaking Canada, food is not important, it's just sort of a bodily function, right?"
(Jennifer Scott)

The provinces with large increases in the number of organic farms since 1992 are New Brunswick, Saskatchewan, Alberta, Ontario, and British Columbia (see Table 3.1). In the other provinces, the total number of farms has also risen, but at a slower rate. This may be due to the absence of new organic farmers entering certification, or, more likely, to farmers withdrawing from certification procedures, while new farmers replace them. Farmers apply to be certified for various reasons, such as the inspectors' knowledge and input, the contact with other certified growers, and the ability to sell their products in supermarkets and other retail establishments. Sometimes, certification may not meet the needs of particular farmers, so they decide that being certified is not worthwhile, and they do not renew their application. There are certified organic farms in all parts of Canada, except in Newfoundland and the Northwest Territories, as seen in Table 3.1. The issues surrounding certification are explored in Chapter 5.

Province	1992	1996
Nova Scotia	12	17
Prince Edward Island	10	17
New Brunswick	12	28
Québec	471	501
Ontario	148	275
Manitoba	110	118
Saskatchewan	190	365
Alberta	67	121
British Columbia	154	281
Yukon	N/A	1
Total	**1174**	**1724**

Table 3.1 The total number of certified organic farms per province 1992 and 1996 (Adapted from Macey 1997, p. 27)

In Nova Scotia, the number of certified growers has fluctuated since 1992, but there seems to be an upward trend since 1994, as seen in Table 3.2. This may be attributed to the reasons given above for or against certification, or may illustrate more complex issues like dissatisfaction with the organic movement, financial hardships, and so on. These issues are discussed in more detail in Chapter 5.

Year	1992	1993	1994	1995	1996	1997	1998
Number of certified growers	12	9	9	12	17	N/A	24

Table 3.2 The total number of certified farms in Nova Scotia 1992-1998 (adapted from Macey 1997, p. 27)

The Canadian Organic Growers Association has suggested that "for every certified grower there are at least 2 transitional growers" (Canadian Organic Growers 1990, p. 13). Transitional growers are farmers who were traditionally using conventional methods, who then made a conscious decision to use organic methods, and are gradually working towards becoming a fully organic operation. This process is gradual and slow (a minimum of 3 years) for economic and physical reasons, which is why it is called a transition. The number of certified growers in Nova Scotia is presently 11 with NSOGA, 11 with OCIA, 1 with both NSOGA and OCIA, and 1 with Maritime Certified Organic Growers (a certifying body from New Brunswick). Therefore, with the previous assumption of two transitional farms for every certified farm, it would mean that another 48 farms are in transition to organic production in Nova Scotia. This seems a little far-fetched in this Maritime province since the rate of conventional farms in transition to organic has been extremely low until now:

"I think Nova Scotia may be behind. There's not a lot of conventional farmers here... I don't know of any, which doesn't mean there aren't any, but I don't know of any conventional farmers that have actively decided and are actively transitioning to organic. Not yet. And I think that's probably happened a lot more in other places."
(Alex DeNicola, a farmer in Hants county)

This transition is much more widespread in the larger agricultural regions of Canada, such as Southern Ontario, and the Prairies, where large farms are making the transition to organic for financial, health, or other reasons. In all of Canada, the assumption of two farms in transition for every certified farm, signifies that 3448 farms were in transition to becoming organic in 1996. This means that in a few years, the number of certified organic farms will increase substantially in Canada, as these farms finish their transition and apply for full-fledged certification.

The study from the Canadian Organic Growers also implies that "for every certified grower, there is a smaller, uncertified grower", which means that the larger, and more commercial organic farms would be certified, while many smaller, more self-sufficient growers would not be certified (Canadian Organic Growers 1990, p. 13). These uncertified growers may be too small for certification to be beneficial, or they may only sell their products to long-time customers at the farm gate or at the local market, where certification with its costs and efforts, is not necessary.

If we adopt the assumptions that for every certified grower, there are two growers in transition, and that for every certified grower, there is a non-certified grower, this would have produced a total of approximately 2955 Canadian organic farms in 1990 (585 certified, 1200 in transition, and 585 non-certified). The Canadian Organic Growers, predicted that the number of certified farms would reach 2400 in 1994 (Canadian Organic Growers, p. 10). In reality, the statistics show that in 1994, there were only 1355 certified organic producers in Canada. As seen in Table 3.3, the number of organic producers in Canada has increased steadily since 1992, but not at the rate predicted (Macey 1997, p. 26). The organic operations in 1996 would account for approximately 0.6% of the total number of farming operations in Canada (Statistics Canada 1997a, p. 1). The 24 certified organic farms in Nova Scotia therefore represented a very small portion of the national organic activity in 1996 (approximately 1%), and an even smaller percentage of all agricultural holdings in Canada (Macey 1997, p. 27).

Year	1992	1993	1994	1995	1996	1997	1998
Number of certified growers	1174	1239	1355	1510	1724	N/A	N/A

Table 3.3 The total number of certified organic growers in Canada 1992-1998 (adapted from Macey 1997, p. 27).

In Nova Scotia, 14 of the farms were certified in 1998, while 27 were not (questionnaires). All certified organic farms were certified under the local certifying group, the Nova Scotia Organic Growers Association (NSOGA), and one of them was also certified with the local chapter of the Organic Crop Improvement Association (OCIA), the largest certifying body in North America (Tisdall 1992, p. 10). In terms of the interviews, I chose certified and non-certified growers, with different experiences and opinions concerning certification . I also talked to more farmers affiliated with NSOGA than with OCIA, which might result in a biased view towards that organization. However, many of the respondents had either been certified at one time, were presently certified, were seeking certification for the coming season, or had plans to become certified in the future.

3.1.2 The evolution of organic growing in Nova Scotia and the Nova Scotia Organic Growers Association

"(30 years ago) they (public) didn't even know what it (organic) was!"
(Neil Van Nostrand, mixed farmer in King's County for more than 30 years)

Serious organic farming in Nova Scotia has a fairly recent history, despite the fact that two of the questionnaire respondents have been operating their farm for more than 30 years. Up until 15 years ago, the number of organic producers was very small, the market for organic products was minimal as consumers were generally unaware of what organic meant, and organic production was not taken seriously by the agricultural community or by

government officials. These statements still hold some truth today in Nova Scotia, but the situation is gradually changing. Two very important elements served to propel the development of organic farming in Nova Scotia. The first was the creation of a local chapter of OCIA, the Organic Crop Improvement Association, which formed the first certifying body in the province in 1988 (Tisdall 1992, p. 10). The second was the formation of NSOGA, the Nova Scotia Organic Growers Association, in 1993, by a local group of volunteers who had been actively promoting organic growing in the province (NSOGA brochure).

NSOGA developed as a grassroots movement of people who were dissatisfied with OCIA, which was seen as unsuitable for the Nova Scotia organic community because of its commercial focus. The complex bureaucracy of OCIA was also criticized as being in opposition to the organic ideology favored by this new group. For instance, some of the OCIA certification standards were seen as not strict enough by NSOGA, which wanted to restore the emphasis on local communities and markets:

"NSOGA formed their own group because they weren't happy with OCIA, mainly costs and the bureaucracy. But, in my own humble opinion, they're becoming big enough that they're very similar to OCIA now. And there's not a lot of difference in cost to be certified by one or the other. (...) So there was, and there still is, animosity in certain individuals to OCIA. A couple of the OCIA members don't think much of NSOGA. I think OCIA has its advantages in that its inspectors are better trained, and see a wider variety of processing facilities and crops, and methods of doing things. But NSOGA is improving in that aspect too, because they are increasing in size."
(Jim Inglis, an apple farmer in the Annapolis Valley who is certified with both OCIA and NSOGA).

"We're NSOGA inspectors. It's different from OCIA in that we're sort of self-trained. But, we had OCIA inspectors train us. And we set up our standards based on theirs. And, in fact, ours are stricter (...) What our self-training has allowed us, our costs are really low, and our involvement with the farmers is really good. It's really local, whereas the people

who get an OCIA inspector, they had to get someone from PEI or New Brunswick. There was no continuous contact with the people."
(Laurie McGowan, a small farmer in Annapolis Valley, who is also an inspector for NSOGA)

In contrast to OCIA, NSOGA consciously decided to become a wider organization that would include all supporters of organic agriculture. Creating a broad organization was seen as essential to reinforce the link between consumers and farmers, in securing an arena for the exchange of information between growers, and in providing valuable information on organic practices and products to the public, to government officials, and to new growers.

OCIA, on the other hand, seems to have maintained its focus on organic farmers, and the certification process. As organic agriculture was only in its infancy stages when OCIA was established in Nova Scotia, this organization encountered some difficulties. Many of the organic farmers had small operations, and the complicated and expensive process associated with certification did not make sense to them, especially without an existing consumer-base for the products. NSOGA was created to fill the needs of the small farmers, and to offer a local alternative to organic farmers wishing to become certified:

"I know where NSOGA stands, and that is for the very small growers. (...) We're (NSOGA) designed to be small, and educated, and local everything, local marketing and so on, so if you're going to get big, you should go with OCIA."
(Neil Van Nostrand, past president of the NSOGA certification committee)

There are also many problems associated with NSOGA, such as the difficulty of representing all the organic growers scattered across the province, but it seems that NSOGA has been more suited to answer the needs of small-scale organic farmers in Nova Scotia than OCIA. OCIA still has a strong presence in the province, with 12 certified growers that are

larger-scale, more commercial, and interested in wider markets, but the chapter is now based outside of the province, in Prince Edward Island (OCIA membership list 1998).

3.2 Profile of current organic growers in Nova Scotia

3.2.1 Spatial distribution

Organic farms are scattered across the province with distinct concentrations in the Annapolis Valley, Hants county, and Lunenburg county. Smaller concentrations also occur on Cape Breton Island and the North Shore (refer to Figure 1.2). It is not surprising that most organic farms are situated in the Annapolis Valley as this is the most productive agricultural area in the province. As Laurie and Shannon McGowan remark:

"L- Here (in the valley), the climate is really good."
"S- This is the banana belt (of Nova Scotia). You can grow peaches, apricots, magnolias, kiwi. It's much different than what we could grow on the North Shore."
"L- And, here by the water is a little more moderate as well. It doesn't get as cold in the winter or hot in the summer."
(Laurie and Shannon McGowan)

An important nuance is that there are twice as many organic farms in Annapolis county than in Kings county (the Annapolis Valley largely includes these two counties). Since he has been farming in Kings county for more than 3 decades, Neil Van Nostrand has observed the farming patterns, and he offers his view on the discrepancy between Annapolis and Kings counties:

"Certainly, down in Annapolis, it's quite different because you don't have conventional farmers anymore. They're gone. They went broke. So, who's moved in there? Money people from the States and other people, and that's quite a progressive little area. A lot of people, 'alternatives', moved into Annapolis county and probably Digby too. But, Annapolis has a beautiful climate, soils, they have all they need to produce good agricultural stuff. I don't know why it (conventional agriculture) has folded down there, rather than here (Kings County)."

Joy Elliot is one of the people mentioned by Neil, who has recently moved into Annapolis county to take advantage of the available land left by conventional growers. She and her husband, Doug Brown, and their two young children, moved to Annapolis county from British Columbia, three years ago, in order to start an organic farm. Joy gives another point of view on the discrepancy:

"I'd say the biggest concentration of organic growers is right in this area. It's kind of interesting because Annapolis county doesn't give any support to farmers. In King's county, they subsidize farm tax rate for agricultural land. They start taxing in Annapolis county at $2.10 an acre, whereas that is totally or partially subsidized in Kings county. It's been similar to that for a long time, so that at the Kings county line, the difference in farms is phenomenal. So, it's kind of interesting that so many (organic) farmers have come down to this area. Well, probably because land isn't available in King's county."

In Kings county, there are large fields of monocultures such as corn, as well as large chicken and dairy farms. Some organic farms are trying to carve a niche here. Their survival seems partly due to the presence of a 'progressive' university town, Wolfville, where even some restaurants are interested in buying local, organic food:

"It (local, organic) seems an 'in' thing. Like a little restaurant over in Wolfville, Acton's. I sell them things that I can compete with, like beets and parsnips and artichokes, and that's about all I can compete with.(...) But, they like it on their menu, you see. If they can get organic, they use organic."
(Neil Van Nostrand, who sells some produce to that restaurant)

In Annapolis county, there seems to be significant interest in building up the local community, in health issues, and in cultural values, which creates a fitting atmosphere for organic growers. There are health food stores, natural fabric boutiques, natural health practitioners, farmers' markets, and so on:

"There's a lot of people of the same mind who've come to this area, and we've really connected with a lot of them, so that's probably what I like best."
(Joy Elliot, when asked what she liked about living and farming in Annapolis County).

There are also strong citizens' action groups that lobby for the protection of the Annapolis River and for a reduction of municipal waste. The agricultural landscape, as opposed to that in Kings county, comprises less intensive and more small-scale operations. The organic farms in this area are relatively well integrated in the landscape and the community, as this type of agriculture is generally viewed in a positive light, and the products are in demand. As a result, this accepting atmosphere, teamed with the low cost and availability of land, attracts many potential organic farmers from other parts of the country or the world, who want to start up an organic operation. This was the case for five of the nine farmers interviewed in Annapolis County.

Five questionnaire respondents, as well as one of the most important growers in the province, Norbert Kungl, were situated in Hants county, where the agricultural land capability is slightly less favorable than in Annapolis County (Nova Scotia Department of Development 1986, p. 20). This region has suffered from extensive farm abandonment following the Second World War, so there is only minimal agricultural activity in the area today (Tisdall 1992, p. 10). Like in Annapolis County, organic farmers have been able to go in, and put abandoned farms back into production, as was the case with Norbert Kungl, a vegetable grower. He came to Canada with his wife and family in 1983 from Germany where the land prices were too expensive: *"you could not think about even starting a farm without inheriting it or investing literally millions into the farm"* (Norbert Kungl). The Kungl's settled on a 60-acre farm on the Minas Basin, that had been out of production for about 40 years. They have gradually expanded their vegetable production to make a living

entirely on the farm by supplying supermarket chains in the Maritimes as well as the weekly farmers' market in Halifax.

Another five questionnaire respondents were located in Lunenburg county, on the south shore of Nova Scotia. As in Annapolis county, there is also a vibrant, alternative, cultural community in and around the town of Lunenburg. There is an important German community that has established the first Waldorf School in Nova Scotia, on the grounds of the organic farm of one of the interviewed farmers, Mike Wolter. This school is based on artistic expression and strict principles laid out by Rudolph Steiner, an Austrian scientist and philosopher who is also the founder of biodynamic farming (Tisdall 1992, p. 7). The approximately 30 children who attend the school have the opportunity to participate in daily farm activities, and there is also a weekly organic farmers' market at the school. The organic community seems to have developed independently of NSOGA and other organic groups, as only one of the growers is certified, and they have formed their own informal group.

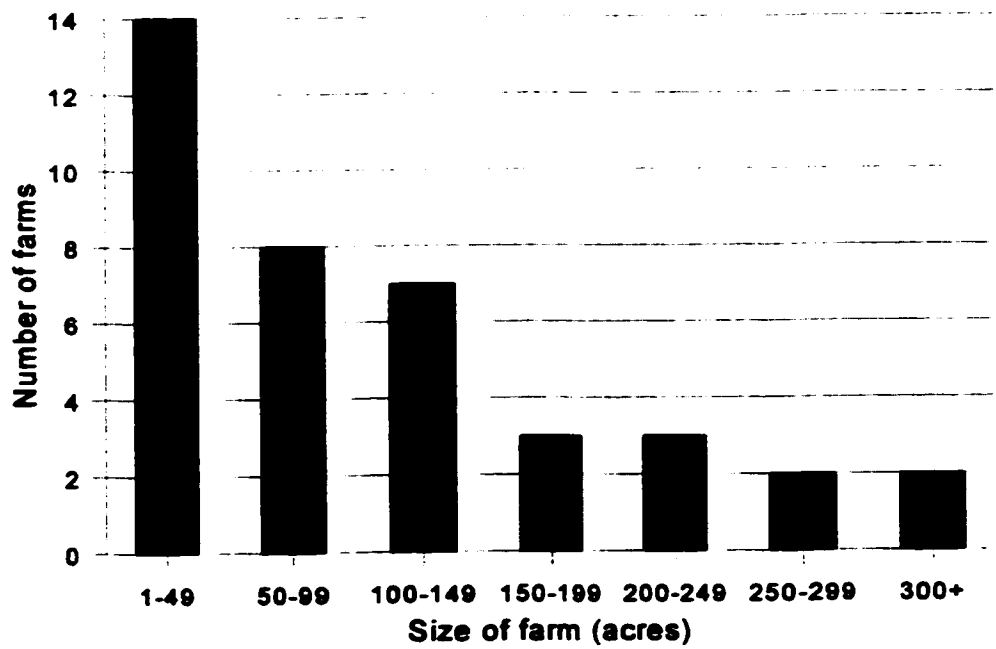
The other questionnaire respondents were situated in Cape Breton, and on the north shore of Nova Scotia. These two areas are considered marginal in terms of agricultural activity, because of physical limitations and isolation from markets, but there still are very productive pockets of farmland to be found (Volunteer Planning Board 1985, p. 18). Organic farmers in these areas often feel isolated from the main organic farming communities and events because of the distance and the small number of other growers in their area. Some growers, however, have taken advantage of this isolating situation to build up unique farming operations, and to devise innovative strategies. An example of

innovation is Sian Newman-Smith and her family, in the Antigonish area, who had been successful market gardeners and garlic producers during the 1980s. Then the garlic was wiped out because of disease, and they decided to stop their market garden operations. They had already started a small tofu-making business, and Sian decided to develop it further. The tofu is made from certified organic soybeans, is distributed across the Maritimes, and is now sustaining the family financially.

No organic farms were reported in Richmond and Cape Breton counties in Cape Breton, nor in Guysborough, Shelburne, Queens, and Digby counties on the mainland (see Figures 1.2 and 1.3). The agricultural potential in these areas is severely limited (Volunteer Planning Board 1985, p. 18), so it is not surprising that no organic farms (in the study) were situated there.

3.2.2 Farm size

Figure 3.1 Size of organic farms in Nova Scotia



The question on farm size was answered by 39 respondents. The largest farm is 550 acres, while the smallest is 1 acre, with the largest category of farms situated below 50 acres (see Figure 3.1). This figure also demonstrates that the number of farms decreases as the size category increases. There are only 4 organic farms which are over 250 acres. The responses to this question can be somewhat misleading as they include the total farm holding, not only the area under production, as do the Census of Agriculture figures. In most cases, as noted on the questionnaires by the respondents, as mentioned in the interviews, and as observed in the field, only a small portion of the total farm area is cleared or in production. The area in production ranges from less than 1 acre to approximately 25 acres, while the rest of the farm is usually comprised of woodlots, and wetlands. This is considered small by agricultural standards:

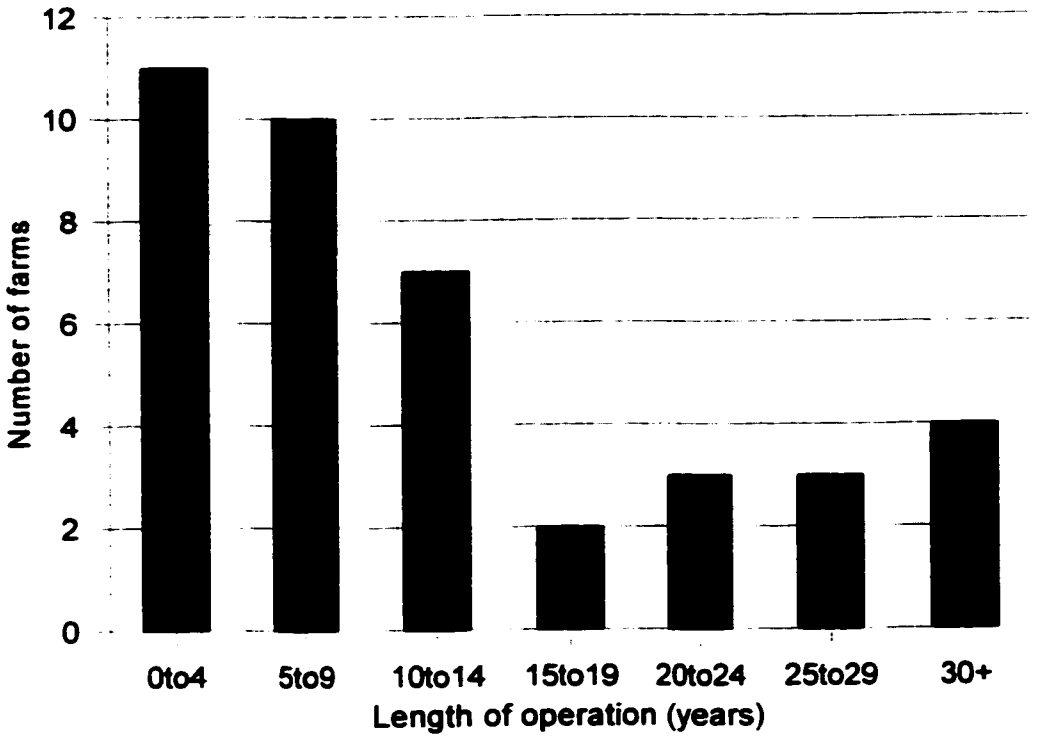
"The ones here are kind of single, individual type things."
(Neil Van Nostrand, who has a 26 acre-farm and cultivates between 10 and 15 acres, speaking of organic farms in Nova Scotia)

"I think the biggest division (between organic and conventional growers) would be the scale of it. That's where you immediately see huge discrepancies."
(Alex DeNicola, who has a 130 acre-farm and cultivates 3 or 4 acres)

As seen in Chapter 5, the small number of growers, coupled with their relatively small size, can make it difficult for organic farmers in Nova Scotia to be recognized by the government, by the agricultural community, and by the general public. However, as discussed later in this chapter, being bigger is not necessarily desirable nor does it always suit organic operations.

3.2.3 Length of operation

Figure 3.2 Length of operation, organic farms in Nova Scotia



Most organic farms have been operating for a short period of time. The length of operation of the organic farms in Nova Scotia ranges from less than one year to 50 years, but 70% of the respondents have been operating their farm for less than 15 years (see Figure 3.2).

An important nuance is that many organic farmers have come and gone during the last 30 years. Many have tried their hand at full-time organic farming, and it has been short-lived. Some farmers have taken an off-farm job, which often results in farm activities being gradually left aside. Others may have left the farm altogether, and moved to the city in

search of more stable, lucrative work, or for other reasons. Paul Colville has seen many discouraged farmers leave during his 25 years of farming on the North Mountain:

"We (Paul and his wife, Ruth) wanted to farm. When we first came here, there would have been along the mountain, there would have been at least 200, maybe 300, (...) all dropped out of the city, all well educated, all great ideas and great dreams. Today, out of that original group of people, I could count on my hands how many survived. We wanted to farm. We were here to stay."
(Paul Colville)

Paul Colville also represents another group of organic farmers, who were so committed to the organic farming lifestyle that they did off-farm work to finance their farm, and to gradually build up their farming operation to a sustaining level. Paul Colville sees this as a necessary sacrifice, while Neil Van Nostrand sees this as the *"perfect"* situation for a new organic grower:

"It was shift work which I hated, but it also meant that you could farm and work. So, that was the first thing. The second thing was that it was regular money. You could project into the future how much you were going to earn. That was very good. That took a lot of instability out. (...) So, we took that money from Michelin. I spent 13 years in that goddamn factory. I think it was the closest thing to a prison sentence that I ever experienced. I hated it. But, I just put my head down, I bit the bullet, and I did it. I made it through, and we were able to finance this place, paying off the mortgage and we never had to go to the bank."
(Paul Colville)

"I took a job with Wildlife in Nova Scotia, worked for 35 years, and then retired. It was a perfect job. I was farming on a small-scale when I was working. (...) You need that - I call it a subsidy - to get going, to get yourself established."
(Neil Van Nostrand)

Neil is different from Paul, however, because he comes from a farming background. Out of the 27 farmers that I interviewed, only 6 came from farming backgrounds; in other words, they had grown up on farms. Many of the others had spent some time on relatives' or friends' farms, or had a family garden, but did not have direct farm experience before

their adult life. In order to gain some practical experience, twelve of the farmers interviewed worked on other organic (or sometimes conventional) farms, before starting their own farm and even while setting up their own farm.

Danny Bruce, who grew up on a farm in Annapolis county and is now farming organically, thinks that the small organic farmers with no farming background, who do not depend on farm income to support themselves, are projecting a negative image of organic farming to the public, and to the conventional farming community. He believes this image discourages many conventional farmers from making the transition to organic farming:

"(The small organic farmers), they have a pension or a good-paying job on the side that covers it. If their lettuce crop is a whole disaster, it doesn't really matter. So, that is giving a bad overtone to (organic) agriculture. Because, when the big guy looks at converting to organic agriculture, he sees the small garden people that have a government job or something to rely on, and he sees their crop all go up in weeds, and he can't have that, it's his investment."
(Danny Bruce)

Since organic agriculture is still relatively recent in Nova Scotia, and many growers have only been operating their farms for a short time, it seems to be going through a 'growing pains' stage. The organic movement is struggling for recognition from the government and the agricultural community; the organic growers are grappling with financial issues; there are opposing views in the organic movement in terms of how it should develop. Each organic farmer has his/her own experiences and vision that sometimes conflicts with other farmers' views. These organizational difficulties are discussed further in Chapter 5.

3.2.4 Main farm products

"I don't want to specialize. I want to keep it more and more varied. You know, one year the apples will be good, another year the carrots will be outstanding. I really don't want to become a producer of bagged lettuce only (laugh)."
(Michael Wolter, who grows a variety of vegetables, fruit, berries, as well as salad greens, and has chickens, bees, and other livestock)

In terms of the main farm products in their operation, most of the respondents illustrate the importance of diversity on an organic farm. The most important product, by far, is vegetables, with 80% of the questionnaire respondents producing at least some vegetables. This is followed by poultry (37%), herbs (32%), fruit (29%), and eggs (24%). Also included are grain, hay, garlic, mushrooms, beef, sheep, lamb, goats, horses, and processed goods, such as milk and milk products (goat's and cow's), lumber, flowers and seedlings, honey, apple cider, water, seeds, and tofu. The respondents were invited to include as many products as they wanted for this question, and they could be as detailed in their identification of crops, as they wanted. This freedom of response was judged to be important, so as to start breaking the pattern of trying to fit farms into specific 'commodity' groups (e.g. poultry producers, dairy farmers, grain farmers), like the conventional farmers' associations and the governments try to do:

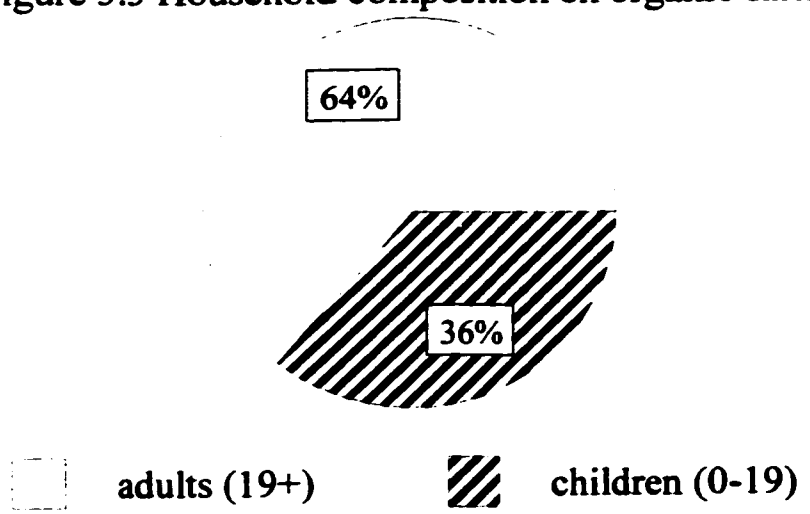
"If you look at the Federation (of agriculture) newsletter, you won't find much of anything about organics.(...) We've tried and talked to the government for a couple of years about the idea of having organics as a commodity group, but they don't want to do that. They want all the chicken farmers to be in with the chicken farmers, and they want all the pig farmers to be in with the pig farmers, and the grain farms with the grain farms. Those are the commodity groups. And, if you have a small farm or diversified organic farm, then you can be in several commodity groups, but you don't actually fit in one. There isn't an organic commodity group, but there might be some day."
(Joice Rennie, a berry, hay, vegetable, pig, and grain farmer in Annapolis County)

The issue of why organic farmers lack government and agricultural recognition is discussed further, in Chapters 5 and 6.

3.2.5 Household structure

To find out the household structure on organic farms, respondents were asked to indicate the number of people in the farming household, who live on the farm, as well as their ages. It was found that 153 people are currently living on the 41 organic farms in Nova Scotia from which responses were received. This total can be further broken down into 98 adults and 55 children (see Figure 3.3).

Figure 3.3 Household composition on organic farms



The average number of household members is 3.7 people, and it ranges from no members living on one farm to 10 members on another farm, with ages ranging from 2 months to 72 years. Children are present on 56% of the farms, which suggests that most farms are made up of nuclear families, single-parent, or reconstituted families. Most of the

other households seem to be made up of couples with no children or no children at home. A few households include extended families, such as the parents of the farm operators living on the farm, as well as uncles and aunts living in the farm household. Two of the households also comprise more than one couple, non-related, living in the same household. This is the case with the Red Fox Co-op, as explained by Jennifer Scott, a member of the household:

> *"We have a legal agreement between the four of us (two couples). And, we also have a legal agreement with (another couple) who are planning to join the co-op as well. (...) Legally, it's a partnership, but the way we've got it organized is as a co-operative. So, everything is organized based on shares. We all have shares in the farm, and we make decisions based on meetings together, on consensus. (...) And... we don't split things off. We just basically work together on everything, so we think of it as a co-operative."*
> (Jennifer Scott)

The respondents were then asked if they considered themselves a 'family farm'. Surprisingly, 78% of the respondents answered yes. This is surprising because organic farming is generally regarded as an 'alternative' activity, which is in opposition to the mainstream trend that is conventional agriculture. In addition, it is generally associated with an 'alternative' lifestyle that is also somewhat counterculture, in that the values of industrial and capitalist society are, for the most part, rejected by organic farmers. Organic farmers are also practising an uncommon activity, considering the small number of dispersed organic farmers in this country. To adopt the label of 'family farm', which is often associated with traditional values and attitudes, such as conventional gender roles and divisions of labor (Whatmore *et al.* 1994, p. 3), seems to clash with the philosophy of organic farming outlined in Chapter 1. These farmers may be 'alternative' farmers in many ways, but they still adhere to values traditionally associated with farming.

This acceptance of traditional values is further reinforced by the fact that many of the farms are composed of nuclear families, as seen above. A possible explanation might be that people who choose farming (with farming experience or not), are drawn to qualities generally associated with farming, more than to the 'alternative' aspect of it. Many of the interview respondents expressed the benefits of raising children in a healthy, farming environment. Also, they often bring up the sense of satisfaction that comes out of 'hard work' on the farm:

"(We don't) expect to make $50 000 and expect to just work 9 to 5. And (we) see the other benefits, you know having this wonderful place for our kids and feel good about what we're doing for the environment, and for ourselves, and, I suppose, for other people."
(Joy Elliott, who has two children, ages 8 and 5)

"(There are) none of these day to day anxieties. You know, our kids play and we don't know where they are for two hours and that's perfectly fine."
(Michael Wolter, who has five children, ages 11, 9, 7, 4, and 1)

"If you love the work, as all organic farmers, producers, do, they love it... The quality of food, the type of work. You have to love it. It definitely isn't a job. So, if you love it, you don't mind putting in all these extra hours."
(Neil Van Nostrand, a farmer for over 30 years)

Most organic farms in Nova Scotia also adopt a traditional farm business structure, that is 'owner-operated'. This type of business structure, in which the farm operation is owned by one or two farm operators, is present in 65% of the cases. In reality, this percentage is probably higher than reported, as some respondents were unclear on the difference between an owner-operated farm and a family partnership. Many of the respondents who chose family partnership as their business structure were couples who equally owned and operated the farm, making it seem like a partnership, but legally their structure is still owner-operated. In addition to the owner-operated and the family

partnership structure, two farms adopted a co-operative structure, and two farms described themselves as a corporation. Again, the small number of 'alternative' business structures, such as co-operatives, is surprising since organic operations seem to be suitable to those types of structures because of their diversity and adaptability.

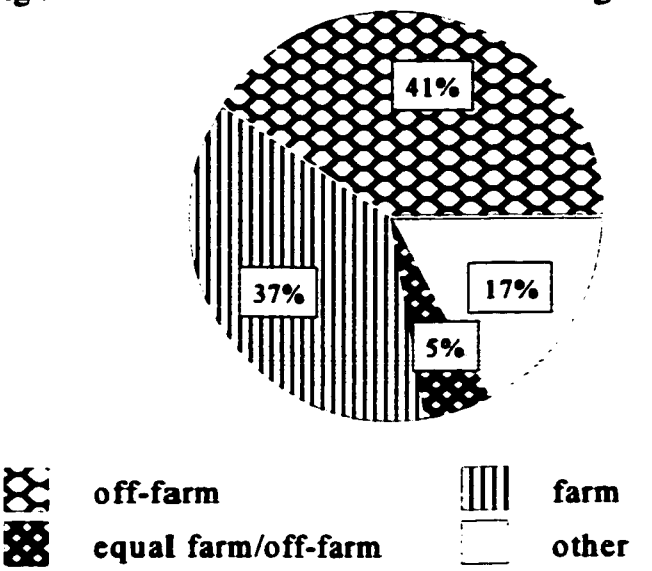
These 'traditional' characteristics are present on farms in Nova Scotia, but the situation may be very different in other parts of Canada. It may be related with the actual locale. Even though Annapolis and Lunenburg counties are seen as progressive areas, the Maritime provinces are still considered conservative, traditional, and sometimes 'backwards' areas, especially in rural settings. These traditional attitudes may be reproduced, and somewhat adopted by people who move to the Maritimes, as well as by native Maritimers.

3.2.6 Economic structure

"I have to work off the farm still, to keep our head above water. (...) It's such a small sell that it's hard to move enough to make a living."
(Craig Medicraft)

As mentioned previously, many organic farmers do not rely on farm revenue as their prime source of income: 41% of the respondents had off-farm work as their prime source of income, 5% had equal farm and off-farm income, and only 37% depended on the farm for their main income. The other respondents (17%) received different types of funding, pensions, and sources of revenue that made up the principal portion of their income (see Figure 3.4).

Figure 3.4 Prime source of income of organic farmers

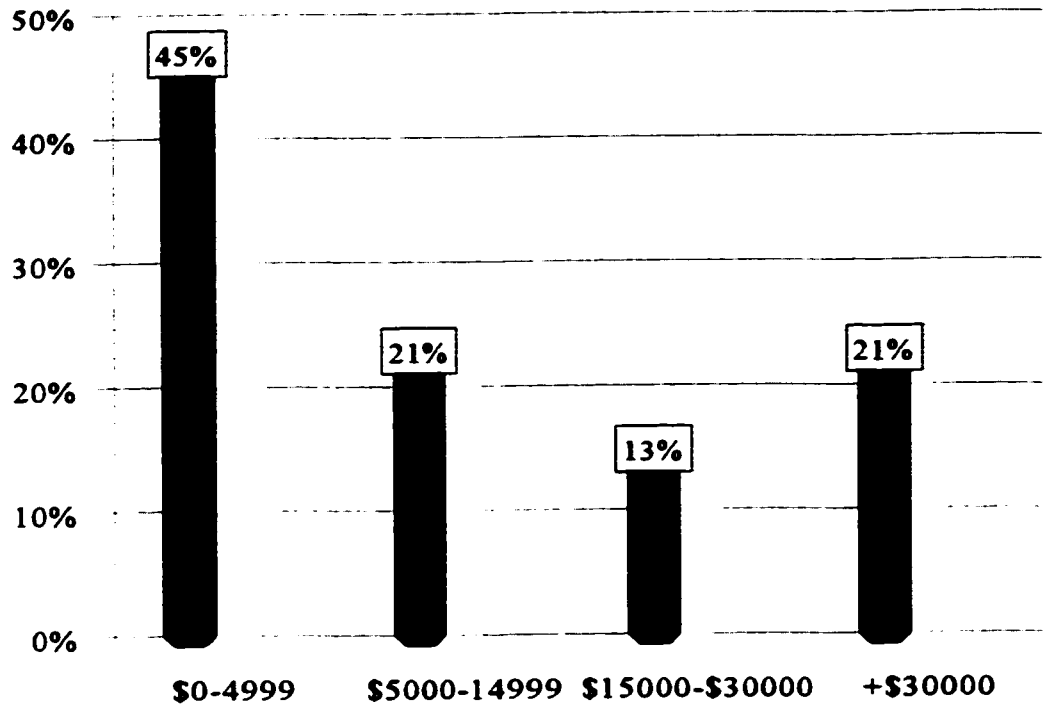


These results can be further nuanced by the fact that in the case of organic farms with productive woodlots, farm income usually includes the income from the woodlot, which can be substantial. Some people might argue that woodlot revenue cannot be considered farm income. In research dealing with organic farms, I think it should be included, as woodlots are often an integral part of the farm operation:

"Well, I think farming and forestry are... I think it's one discipline."
(Jim Drescher, an ecoforester and organic farmer in Lunenburg County)

"(The woodlot) is a barrier. For one thing, it helps for herbicide-drift and all that, but also as a psychological barrier in giving you a peaceful place where you can practice management, positive management."
(Janet Wallace)

Figure 3.5 Gross farm sales on organic farms, 1997



Gross farm sales also include woodlot income. As seen in Figure 3.5, almost half of the respondents had a gross farm income of less than $5000 in 1997. Most of these respondents reported off-farm revenue as their prime source of income. The responses for gross farm sales and prime source of income seem to be closely related, as the eight respondents with gross farm sales of over $30 000 depended on the farm as their prime source of income. However, there are seven growers who depend on the farm for their prime source of income, and who declare gross farm sales of less than $30 000, which results in a very limited annual revenue. Even if many organic farms produce a high proportion of their household food needs, as well as agricultural inputs like manure, firewood for heat, and sometimes barter for other services, this often does not equate to a self-sufficient system:

"When we started, the goal was as close to self-sufficiency as possible. Hmm. I guess that's a pipe dream many, many people have. And, in reality, it can't really be very much other than that (a dream) because true self-sufficiency is impossible. It would mean being so secular and reclusive as to be no fun whatsoever.(...) But, for probably 85% of our sustainable needs, we are sufficient, self-sufficient."
(Robert Rhodes, a farmer in Lunenburg county for 5 years)

There are always numerous other expenses, expected or unexpected, related to the farm operation, the house, or the family. It is no wonder that many of the interview and questionnaire respondents mentioned financial difficulties or stresses as drawbacks to organic farming. These financial constraints are particularly apparent in the start-up stages of the operation, before the soil is properly built up, before the infrastructure is set up, before a stable market for the products is found. The following quotations illustrate this situation:

"I'm broke. (...) I would like to be able to afford to do this. Even to just be able to afford to do it. (...) Just to be able to pay for the costs of organic farming, because a lot of money goes out, just for a little bit of fencing and supplies, getting loads of manure and stuff, and it does cost money. And, I'd like to be sure that we're not losing money doing it."
(Janet Wallace)

The more established farmers also grapple with financial uncertainty, but their income is not as volatile as that of newer farmers. They have worked hard to perfect their growing system, their marketing, their quality level, and their reputation. Now, it seems that their products almost sell themselves, as explained by two of the largest growers in the province:

"When you have a couple, three kids, and you have no money, and you're trying to farm organically, and you're in debt. Boy oh boy, if you can survive that, you're tough. We did survive that. (...) The wind used to whistle through that house and it would freeze the pants off someone. It's very hard to live through that. But, once you do get through that, you come out the other end of that, you accumulate your equipment, you accumulate your

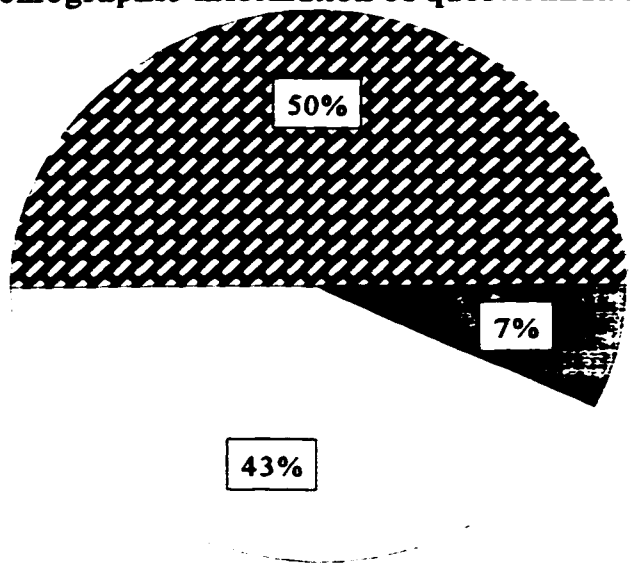
experience, you accumulate your market. (...) Ruthie and I have developed this thing and we have probably one of the best little businesses in Nova Scotia. It's working great. We're 60 years old, and we're there."
(Paul Colville)

"For our part, we have grown from... well, we started with virtually nothing. But, when we started living off the farm 7 years ago, we may have had 6 acres of vegetables. Now, we have 4 times as many acres. And, we still don't produce enough. The demand seems to be always a step ahead of us."
(Norbert Kungl)

Is there a link between farm income and certification? Of the 14 certified questionnaire respondents, only 4 farms made over $30 000 in gross farm sales in 1997. The other 4 farms in the same range of sales were not certified. In addition, of the 15 growers who reported farm revenue as the main source of income, 8 were certified and 7 were not, making it an almost even split. These results do not fully illustrate the impact that certification or non-certification may have on financial security or farm longevity. Chapter 5 explores the advantages and disadvantages of being certified, as well as the concrete effects that it can have on the farm operation.

3.2.7 Basic demographic information

Figure 3.6 Demographic information of questionnaire respondents



"Ruthie is as much the farmer as I'm the farmer."
(Paul Colville, speaking of his wife)

"I'm not an integral part, I don't think, of this farm. I help a little bit, and I help at lambing time, but the most important thing I do is get lunch on the table."
(The wife of an interviewed male farmer)

It is interesting to note that the written questionnaires were filled out practically equally by women and men farm operators (see Figure 3.6). On many of the organic farms in Nova Scotia, the woman seems to be the main farm operator, and on many others, the women and men seem to be working on a fairly equal partnership, while on a few farms, the traditional gender roles are apparent. The gender relations on organic farms seem quite progressive despite the expression of some traditional values, but the organic associations

sometimes present a different situation. The boards of directors and certification committees in these associations are generally male-based. The issue of whether organic farming is more open and welcoming to women than conventional farming is an issue that was not explored to any great length for this thesis. It certainly deserves more attention in future research.

The average age for the men on organic farms is 47 years old, while the average age for the women is slightly lower at 43. The respondents' ages range from 29 to 67 years old, with the largest concentration being in their thirties and forties. This is a slightly younger population than the general farm population in Canada, which is 47 (Statistics Canada 1992b, p. 45). It is also younger than the general farm population in Nova Scotia, as 84% of the questionnaire respondents are under 55 years old, while only 67% of the general farm population in the province are in this age group (Statistics Canada 1997c, p. 70).

The reasons why these farmers farm organically are now examined.

3.3 Motivations for farming organically

Rank	Main motivations for organic farming	Main advantages of farming organically
1	Environmental/Ecological	Healthy for farmer and household
2	Health	Sustainable way of farming
3	Cultural/Lifestyle	Reduced environmental impact
4	Economic	Healthy for consumers
5	Other reasons: natural/work with nature	Products are of high quality
6		Independence
7		Low costs
8		Income

Table 3.4 Motivations and advantages of farming organically (questionnaire results)

"It seems like a lot of people interested in organic farming have always been interested in organic farming. I guess, I mean there are always the examples of conventional farmers who shift over to organic, either because they find it healthier or more productive, but a lot of farmers around here, who are conventional, don't really have that much interest in shifting."
(Paul Muto)

Most organic farmers in Nova Scotia have always farmed organically. Out of the 41 respondents, 73% have always used organic methods, while 27% started with conventional methods on their farm, and then switched to organic. There are, however, indications that more and more conventional farmers have been showing an interest in organic methods, and in the organic market, during the last few years:

"Up until recently, there's very little new interest by conventional growers. There are now (conventional) farmers applying for certification and pre-certification, which I think is a great thing. Finally, so to speak."
(Norbert Kungl)

The motivations for farmers to adopt organic methods, after having tried the conventional route, or to start an organic farm instead of a conventional one have been divided into 5 categories that encompass a variety of situations: health and environmental issues, lifestyle choices; economic reasons, and other motivations (see Table 3.4). Many of the farmers do not fit into one specific category, but are driven by a combination of these reasons.

3.3.1 Health issues

"The saying we have here is when you go to the grocery store, you're buying cancer in a basket."
(Jann Chute)

"Of course the health aspect isn't a minor thing."
(Neil Van Nostrand when asked why he farms organically)

When asked the two main reasons why they farmed organically, 73% of the respondents chose health as one of their reasons, with two-thirds of this 73% choosing health as their main reason. 'Healthy for farmer and househould' was also overwhelmingly the most important advantage of organic farming chosen by the respondents. This illustrates how many respondents choose to farm organically for their personal health and the health of their families:

"We're mainly trying to feed ourselves without all the chemicals and pesticides."
(Kerry Wentzell)

"I got asthma, and lots of allergies, and all that sort of thing."
(Jim Inglis, explaining his decision to make the transition to organic farming ten years ago)

Some farmers use organic methods because of their customers' health concerns like pesticide residues on conventional products. Many other growers want to guarantee as healthy a product as possible to customers with health problems such as allergies or environmental sensitivities. 'Healthy for consumers' was chosen as the fourth most important advantage of organic farming:

"A lot of consumers who are buying organic (...), an awful lot of them now, it's because of sensitivities and (health) concerns they have."
(Joice Rennie)

Some farmers are also concerned about the health of their livestock and of their neighbors. As organic farming is based on a systems-approach, in which an imbalance in one part of the system will have repercussions on other parts of the system, farmers often look further than the household and farm level when making decisions. Having healthy livestock, as well as working towards a healthy community, are important elements in an organic operation:

"You're not spraying things in everybody's face that lives beside you."
(Rick Gilbert)

The health issue is certainly the most publicized link with organic food in the media. Many of the consumers of organic foods suffer from health problems, and often need to eat food grown without artificial chemicals. Many farmers are afraid of what effects the long-term use of chemicals could have on them and on their family. The other elements of organic farming, such as environmental sustainability, often seem to take the back burner to human health issues. One farmer, however, thinks that human health is a selfish reason for farming organically, or for eating organic food:

"I think it's become very clear to people, to a large minority of people, that chemical residues pose a significant risk to human health. So, I think most people that eat organic food, eat it because they're trying to ward off their own death. Which, I think, is the least valid reason I can think of to eat organic food. It's an egocentric rationale."
(Jim Drescher)

3.3.2 Environmental concerns

"I'm not really interested in having to deal with poison, and I don't want to degrade the land."
(Jennifer Scott)

When asked why they farmed organically, 85% of the questionnaire respondents chose environmental/ecological reasons as either the primary reason (41%) or the secondary reason (44%). The importance of environmental well-being is also reflected in the question addressing the advantages of organic farming, since 'sustainable way of farming' and 'reduced environmental impact' were chosen as the second and third most important advantages of organic growing. As organic agriculture is so closely connected with natural cycles and the environment, many of the farmers are conscious that the products and methods used on a farm operation can have repercussions at a much greater scale than just the farm scale. The extensive use of agricultural chemicals in conventional farming, for example, can lead to soil degradation, as well as water contamination, whereas in an organic operation, the use of cover crops can prevent widespread soil erosion and add nutrients to the soil. Many of the organic farmers believe that the negative repercussions of farming can be avoided, and they are therefore working towards limiting environmental degradation by farming organically:

"You know, people have been farming for hundreds, thousands of years, without using these things (chemicals).(...) I'm aware of some of the problems that exist with pollution. And, we just want to avoid it, make a small vent where we can."
(Jann Chute)

Other growers, who are driven by environmental reasons, emphasize the regeneration aspect. A saying that is often repeated in "organic" circles is that organic farmers want to leave their land in a better shape than when they arrived. This is very much a proactive approach, in which the goal is not only to limit their environmental impact, but also to actively work towards improving the natural systems.

"(We try) building up the soil, and leaving it in better condition than when we started."
(Kerry Wentzell)

"I try to (...) improve it. Improve the soil here. It has not been well cared for, and I'd like to slowly bring that around."
(Alex DeNicola)

The health concerns and the environmental considerations all seem to be part of a larger reason for practising organic agriculture, which is a lifestyle choice that includes all aspects of the 'organic system', as seen in the next section.

3.3.3 Lifestyle choices

"We were going to be FARMERS."
(Paul Colville)

"A lot of regular farmers call organic: Oh, that's 'lifestyle' farming. Of course it is! What farming isn't? You end up doing it (farming) no matter what way you do it."
(Laurie McGowan)

Another important reason for certain farmers to choose the "organic" way is because of the lifestyle that is associated with it. This reason was chosen by 37% of the respondents as one of the two main reasons for farming organically, and it probably would have been

chosen by most of the others as the third reason, since many farmers mentioned it during the personal interviews. It was also chosen as the sixth most important advantage of organic farming.

As stated earlier, most of the respondents do not come from farming backgrounds, or had been separated from farming for a considerable length of time, before coming back to it. Many of these farmers can be characterized as 'back-to-the-landers' who carry with them the conviction that farming is the lifestyle that they want and, more specifically, they want a lifestyle that follows organic principles. It seems that being on the land and farming is the main motivation for these respondents with the "organic" aspect being just a given in the way farming would be done because of health, environmental, social, and economic aspects. As seen in the fifth reason for farming organically, they would never have thought of farming other than according to organic principles.

Another aspect of the organic farming lifestyle is the freedom that comes along with it. Farm loans are very rare with respondents, and most are proud of not owing money to a bank, and not having to depend on farm subsidies or other programs:

"I don't want to owe a bank. (...) I think (that with) a heavy debtload, you lose focus of what you start out on."
(Craig Medicraft)

Along with this freedom from financial and governmental institutions, comes a certain freedom of choice. The organic farmers fully manage their farm, and they decide what to plant each year, which crop rotation works for them, how many people to hire if any, what work needs to be done and when to do it, where and how to sell the products, and so on. The lifestyle of farming can be constricting in many ways, and it seems that organic

farmers have found strategies to free themselves of many of the imposed limits. For example, a conventional farmer supplying food to a supermarket chain usually has to guarantee a constant, regular supply of products, which can be stressful because of weather conditions or other unexpected events. Organic farmers in Nova Scotia, as discussed in the next chapter, seem to favor alternative distribution channels for their products, which allows them to be much more flexible in their supply. This can also allow more flexibility in the farm activities and work schedules which, in turn, can lead to a more satisfying lifestyle and the enjoyment of doing what they believe in:

"I enjoy doing the gardening. A lot of it is that. It is quite different from (conventional farming). I can't imagine wanting to go out to a monoculture."
(Janet Wallace)

Many farmers mentioned that choosing to operate an organic farm is choosing to adopt a whole lifestyle, which is characterized by independence and sustainability. It is, however, an 'alternative' lifestyle with numerous possible difficulties. These include weak public acceptance which, in turn, is associated with a lack of government and financial support, as well as unstable markets and distribution. Many organic farmers in Nova Scotia have been capable of overcoming these difficulties because of their strong commitment to the organic lifestyle, their determination to make it work, and their love of farming.

3.3.4 Economic considerations

"There's also a very practical reason (for growing organically), and that is, there's a niche market there."
(Paul Colville)

Only six of the respondents (15%) chose economic motivations as one of the two most important reasons for growing organically. This is not a reason that seems to be well accepted in the "organic" world, or at least not in the organic community in Nova Scotia. Organic agriculture is based on principles that are mostly rooted in nature, and aims to achieve a balanced system in which all the parts can live harmoniously. The economic issue does not seem to fit easily in this structure. It is often seen as non-purist (organic), or a contradiction in terms to be economically-motivated. This contradiction is discussed further in Chapter 4. In reality, however, economic factors play a large part in the 'survival' of organic farms. If a farm is to be truly sustainable, it has to be economically-sustainable, as well as environmentally and socially sustainable. There are two main types of organic farmers who are driven by economic motivations:

1- The farmers who cannot afford the start-up costs of farming conventionally, that is not being able to buy the chemicals and the machinery needed to support a conventional operation. For these farmers, organic farming is seen as an attractive alternative because of its limited use of external inputs, and its ability to be productive on a small-scale:

"Well, one thing about buying chemicals is that you have to pay for them."
(Jann Chute)

"S - How did you get started in organic farming?"
"R - Well, that's easy, I couldn't afford fertilizer."
(Robert Rhodes)

It is important to note that most of the farmers who say they are farming organically because they cannot afford the chemicals also believe in the health, environmental, and lifestyle virtues of organic farming. The reason behind growing organically is often a complex web of motivations and experiences that are dynamic in time. A farmer may start using organic methods on the farm because the conventional inputs are becoming too expensive. Gradually, this farmer may become interested in learning further about organic farming and may look at the organic publications and organizations that are available. This puts the farmer in touch with these other farmers in the organic movement to share ideas and experiences. Eventually, the farmer might adopt some principles or ideas from other farmers and the organic movement, as he/she realizes that he/she agrees with them. Therefore, a farmer's motivations may change as he/she becomes immersed in the organic community, or because his/her values change.

2- The farmers who start an organic operation or expand an existing one because of the demand in the marketplace for organic products, and the premium price that may sometimes be obtained for them.

Again, this is not a very popular reason to proclaim in "organic" circles, and many farmers do not want to be associated with the commerciality of organic agriculture. I would even go as far as saying that it is often a 'taboo' subject, even if the market for organic products is increasing rapidly:

"S- Why did you decide to get into the organic side of things?"
"D- Well, I felt that we were doing it fairly close to organic in the first place. And, we need the extra revenue, although the organic people don't like to tell you that."
(Danny Bruce)

"When I first started working on farms, it was really... the people involved were in it because they had a passion for it, whereas now, I feel like there's still that, but there's also some people involved who are involved in it just because it could present an economic... an opportunity. That's ok, as long as people are honest (laugh)."
(Jennifer Scott)

The economic aspect of organic agriculture cannot be overlooked, even if some of the growers would prefer to leave economic concerns and considerations out of discussions about organic agriculture. The growing demand for organic food and the complex, economic implications of running an organic farm are discussed more fully in Chapter 4.

3.3.5 "It's the right thing to do"

Among the other reasons cited for organic farming, the most common is certainly the moral issue that makes farmers affirm that organic farming is the *"right"* way to farm. Many respondents could not express how they knew this was *"right"*. It was more of an instinctive feeling, and it was often said very spontaneously. However, many of the respondents alluded to the opposing nature of organic and conventional agricultures, organic farming being *"right"*, and conventional agriculture being *"wrong"*. Here are a few examples of the moral motivations:

*"Small-scale organic is the **right** way to tend the land."*
(Paul Colville)

*"(Conventional farming) was just the **wrong** way to farm. Organic is a **better** way to farm, even though it's not perfect.(...) I winced when I put on (chemicals). I winced. I didn't like it from the beginning. And, the more I worked with it, the less I liked it."*
(Neil Van Nostrand, who made the transition to organic 33 years ago after farming conventionnally for 3 years)

"(Organic agriculture) was in my mind, and there was never really a question in my mind, that if I practised agriculture that it wouldn't be a ***more ecologicaiiy sound practice****.(...) I can't really explain where it came from."*
(Norbert Kungl)

"It's morals in the sense that it just ***doesn't make sense*** *for us to put poison."*
(Shannon McGowan)

These moral issues, linked with the strong commitment to the lifestyle mentioned above, results in organic farmers who strongly believe in what they are doing, for various reasons. In the next section, I explore how this belief spreads to the larger rural community, and to the agricultural community.

3.4 Social issues linked to organic agriculture

3.4.1 Organic farmers and the rural community

"Most organic farmers I know wear more than one hat. (...) I don't know an organic farmer who isn't involved in something, maybe he's in fire-fighting, or Lion's Club, or something else, but they're always giving back."
(Craig Medicraft)

Organic farmers in Nova Scotia seem to be an integral part of rural communities. Seventy one percent of the questionnaire respondents reported being actively involved in their community, by way of school activities, community meetings and events, environmental groups, as well as farming and organic organizations. Being involved in their community is seen as essential by many growers, since it corresponds with the organic principle of being ecosystem-centred. The rural community is seen as an integral element of the ecosystem which must be nurtured and cared for, so that the farm may become a healthy operation within this community:

"Both of us have been involved in local activities, volunteer type of things. (...) I think it's a mindset that goes along with practising organic agriculture, if we want to be an asset to the community."
(Norbert Kungl)

Another role that is often mentioned by organic growers is to be an example for other rural residents and farmers. In Nova Scotia, many rural residents have a backyard garden, and they often turn to farmers in their community for gardening advice. Organic farmers can show them alternative solutions to their problems that limit or eliminate chemical-use. In addition, organic farmers often feel that they are leading a relatively low-impact lifestyle that favors community cohesion. This might inspire other community residents to become more aware of their own lifestyle and to even make some changes:

"S- What role do organic growers have in the community?"
"R- If they were good growers, and really on top of their game, they would all be part of an example. They would be a model for self-sufficiency and the local commerce, and being a good neighbor."
(Rick Gilbert)

"It's kind of neat to remind people that things used to work out quite well before the chemicals. (...) So, I see our role, not that we're trying to be on a pillar or role-models for this community, but just to see some alternatives."
(Joy Elliot)

Other respondents consider themselves influential in the community, but independently of their farming life. These farmers think that they would still be involved in the community, whether they were farmers or not, and whether they were organic farmers or not:

"I think the ways that we contribute to the community in the most beneficial ways are not particularly related to farming or forestry but related to just caring for our neighbors as human beings, hanging out with them, talking with them, sharing food and materials and work."
(Jim Drescher)

Several farmers even mentioned that most of their neighbors did not know that they were farming organically, and they attribute this to the lack of interest in farming and especially organic farming, in many rural areas. There is not a strong demand for organic, or even local, products in rural areas. Many consumers favor convenience over quality, or are generally indifferent to the food that they eat, where it comes from and how it was grown. The people who buy organic food often do not live in the immediate vicinity of the farm, but rather in larger centres:

"You know, the awareness in the general population is not that it's important to buy local food, or to eat in season, so (my) role as farmer is not really significant."
(Michael Wolter)

"A lot of people in this community haven't got any idea that we farm organically. It wouldn't make any difference to them anyway."
(Joice Rennie)

In order to address this lack of awareness for organic farms and for organic food, many of the respondents believe they need to develop their educational role. This role is discussed in the next section.

3.4.2. Public education

"Our old-fashioned neighbors kind of heard the word organic for the first time because of us, so there's just a bit of an educational role, possibly."
(Summer Fike)

Since there is a general lack of public awareness of organic farming in Nova Scotia, many of the respondents felt that an important part of their role was education: 41 % of the questionnaire respondents offered some type of educational activity at their farm, or outside in their community. Some of this education is done very informally by just talking with

neighbors, other farmers, or joining various community groups. Several farmers also perform a more organized educational role, such as giving workshops, classes, or farm tours, to people who are interested in learning more about organic methods and the philosophy behind it. Having school groups visit the farm, or giving presentations for schools and other youth groups are also common activities:

"I'm a youth group leader for a scouting group and have been for the last 6 years, and the kids come out here (to the farm) and we do hikes and special (activities) so I suppose in a way, that has some influence."
(Joice Rennie)

In addition to the educational role at the farm-scale, there are also various educational activities that are organized through NSOGA, and other organizations. NSOGA has a portable exhibit that travels across the province to numerous agricultural fairs and other related events to promote organic growing in the province. This is achieved by having knowledgeable staff at the booth capable of answering specific questions, having a variety of literature and practical information on organic growing and the organization, and having a visual display to illustrate how organic growing is being done in the province (NSOGA newsletter, August 1998). NSOGA also organizes several workshops throughout the year with specific themes related to organic growing, which permits the general public, as well as organic farmers, to learn more about organic practices:

"The NSOGA has taken on the role of putting on workshops to teach anybody that's interested in organic growing methods. (...) But, we're (organic farmers) educating ourselves at the same time."
(Neil Van Nostrand)

These organized activities also provide an informal opportunity for farmers to exchange information and personal experiences that might be helpful to other farmers:

"My standard saying is when I go to conferences, I usually learn as much in the coffee breaks or in the breaks by talking ot other people, than I learn during the sessions."
(Norbert Kungl)

Another aspect of education consists of doing practical research and technical demonstrations that are directly related to organic growing. These are often organized by organic growers in conjunction with a supporting business or organization, such as the following demonstration which was set up during the Summer of 1998 on the grounds of a local museum:

"P- We're doing a cover crop demonstration at the (local) museum.(...) I guess we'd like to do more of an educational thing."
"J- We'd really like to get our hands on land, or have some farmer try out some techniques on a field that was visible, kind of as a demonstration."
(Paul Muto and Julia Cooper, who have a small organic operation, but also do a lot of educational work and sometime lecture at the Agriculture College in Truro)

Other organic growers have carried out research through NSOGA, with funding from various external bodies, such as Agriculture and Agri-food Canada, and Environment Canada. The most important project to date which benefited from this external funding, is the 'Cover Crop Project'. This research was initiated in 1994 by a variety of organic growers and specialists in the organic field, with the collaboration of organic farmers around the province who volunteered some of their land on which the research could be carried out. Numerous workshops on the use of cover crops ensued from this research, as well as the publication of *Under Cover*, and other reports to make the research results accessible to as many people as possible.

Other organic farmers disagree with having an educational role, describing this role as a little over-rated, and even arrogant. They make the point that many organic farmers

often have insufficient knowledge and experience in organic growing, and might not be entitled to an 'education' role. According to them, it would therefore be worthwhile for organic farmers to learn as much about farming as possible from conventional as well as organic farmers, before trying to educate anyone:

"I don't know if we do have a role in the rural community. Education, it's very presumptuous to say that. I think if it's any education, I think we also have a role to learn from the conventional farmers in the communities. They know a hell of a lot more than we do (about farming), in most cases."
(Janet Wallace)

3.4.3 Awareness in the agricultural community

There is also some disagreement over the role of organic farmers in the larger agricultural community. On one side, many of the farmers who I interviewed believe that a healthy cooperation is possible between organic and conventional farmers. Conventional farmers are often seen as assets to the organic community because of their extensive knowledge and experience, but also because of the available equipment and infrastructure that they can provide. This is particularly important for small-scale growers in the early stages of their farm operation:

"I don't think it's a good idea for organic farmers to go around and tell other (farmers) they're doing things wrong. (...) That's not constructive. (...) You've got to have a dialogue. Farmers need each other. There's a certain amount of infrastructure needed to run a farm, and if there aren't any other farmers around, you've got to set it all up yourself."
(Jennifer Scott)

The organic farmers also see their role as setting an example for other farmers, by showing them alternatives to potentially harmful agricultural practices. Many also believe

organic growers must become visible in conventional circles, in order to break down some of the stereotypes held by conventional growers vis-à-vis organic growers:

"I think it's to educate certain members (of the Federation of Agriculture). (...) And (to show them) that we're not big ogres, or trying to ruin the economy of the province, or set things back a couple hundred years."
(Jim Inglis, organic farmer and director of the local Federation of Agriculture, when asked his role in the agricultural community)

"S- What role do you think organic growers have in the larger agricultural community?"
"R- Allowing people to see possibilities that they didn't realize were out there."
(Rick Gilbert)

On the other side are the farmers who believe that collaboration between organic and conventional growers is unnecessary and even detrimental to the development of organic growing:

"S- What role do organic farmers have in the larger agricultural community?"
"P- None! Very, very little."
(Paul Colville)

"S- What role do you see for organic farmers in the agricultural community?"
"SF- Some people want organic farmers and conventional farmers to get together. Somehow, it seems that that's the process that is co-opting organics more and more. (...) It's like building an ally with your enemy. (...) We would be better to say: We don't want your models. (...) We're going to focus on (our) future, and once that's all established, then if there's time for talking, we can do that."
(Summer Fike)

Another related view is that organic agriculture cannot conform to the conventional organization because most organic farmers are small-scale and diversified, while most conventional growers are large-scale and specialized. Organic farmers make up a small minority which is often disregarded, since the focus in conventional circles seems to be solely on agribusiness and large-scale monocultures:

"S- Are the organic growers involved in the farmers' associations?"
"N- No, and that's another sad thing. We should be and we aren't."
"S- Because you're not welcome there?"
"N- No, that's not true. I can't blame that. It's just that realistically, they have to go with the flow (of conventional agriculture)."
(Neil Van Nostrand)

"The Federation doesn't like us (organic farmers). (...) We don't really like them either. It is difficult, partially because we're so small that we're not taken seriously and because the typical organic grower has a very small operation. They're mixed operations too, which does not fit in as well into the scheme of things."
(Janet Wallace, when asked what role organic farmers have in the agricultural community)

Other farmers hold the opinion that as the number of organic farmers is growing, and as organic agriculture is gaining recognition and support from the public and to a lesser extent from the government, it is now impossible to ignore it. The agricultural community, as well as the agricultural schools, now have to acknowledge its presence, and slowly adapt their structures to accommodate these new types of farmers:

"I think the organic movement, if we can call it that, is a festering splinter in the side of industrial agriculture. It's getting definitely more play at the agricultural schools. Professors who are interested in organic agriculture are still discriminated against at the AG schools. But, it's becoming a more persistent problem for agricultural schools. And that's a good sign. So, for many years, it was just a splinter and nobody really even bothered with it. Now, it's festering, so it's a sore that has to be dealt with."
(Jim Drescher)

The issues of organic farmers having an educational role and of having a role in the agricultural community are very controversial within the organic movement. They are further complicated by the general lack of cohesion concerning goals, language, standards, and certification, in the organic movement. In the next section one of these difficulties is examined: the language debate.

3.5 The language debate

"If you used all the catch words for organic, I'd agree with them."
(Craig Medicraft)

"S- Would you use any other words than organic to qualify your operation?"
"H- There are all these words. I would rather not use organic."
"R- I think it's a non-term."
"H- Vegetables are organic. Meat is organic. And, we're all organic."
"R- You can put as much pesticide and herbicide as you want on something, it's still organic to my knowledge. It's not a mechanical thing, it's growing."
"S- So what would you prefer?"
"H- I just call it farming, agriculture."
"R- You can call it natural, but that doesn't really do it either, because weeds growing in a vacant lot in the city are natural, but are they normal? Not really. (...) Ecologically-sensitive..."
"H- Biological, sustainable... Our living here, it's everything. It's a whole ecosystem."
"R- That's where it gets out of hand, because the word sustainable has been co-opted by almost everybody going."
(Rick Gilbert and Heather Campbell-Gilbert)

As noted in Chapter 1, one soon realizes that the use of the word "organic" is very problematic, and that my study may be a little 'behind the times'. "Organic" is the buzz word in the press, in the health food stores, and even in supermarkets now, having replaced "natural" or "naturally-produced" food. The use of the word "organic" is currently being negotiated in Canada and in the United States, in order to regulate the meaning of "organic", and to draw up a new set of standards to regulate what constitutes "organic" food. With all this widespread attention, the meaning of "organic" is gradually being lost, according to many growers:

"S- Do you have a problem with the word organic?"
"P- I'm starting to have a problem with it. (...) We're weakening the standards, right? And, when we do that and we allow genetic engineering in, and irradiation, it gives shelf life to the stuff. That's not the organic that I know! That's not the organic of 25 years ago! That's not where we started from!"
(Paul Colville)

"I think the term organic really has so many meanings now that it has no meaning.(...) You know, words come up in our culture, in our language, and become obsolete so quickly these days. Organic is one of those words. It had some meaning, and now it has been adopted by such a wide range of people saying: Yup, organic is good, so I want that word. But now, the word has no meaning. It's obsolete. We should quit using it. It does not communicate anything. You know, it's a word like sustainable. Sustainable has no meaning any more. It's not a useful word in our language, although it was, for a time. Many words now appear and disappear very quickly... especially good words (laugh)."
(Jim Drescher)

What position does the word "organic" now hold in farming? It's been around for about half a century, and has more recently been associated with another catchy word, "sustainable". But is organic agriculture always sustainable?

"What (organic) should mean is a truly sustainable system of agriculture. Everything fits and is being recycled on the farm, or is locally. And products are being marketed locally. I have some problems with organic that's from the other side of the world. I'm not sure how sustainable that is. Some farmers (...) use the word ecological rather than organic, to kind of differentiate between the two. Ecological agriculture is truly sustainable, most likely the nutrients are on the farm, whereas sometimes organic (is not sustainable)."
(Julia Cooper)

"Well, to me ecological means that it has a lot to do with sustainability. It don't think that industrial organic, even though it may meet all the standards, is sustainable. It's not ecological. (...) To me, ecological is bioregional organic. If it's not bioregional, then it's probably neither. (...) I think ecological to me is pretty good. It works alright."
(Alex DeNicola)

Does "organic" aptly describe what organic farmers are doing? Most of them do not think so. The word is already 'passé' for many of them, but they hang on to it because of the consumers' newfound interest for the word. Of course there were consumers of organic food before this recent enthusiasm, but these loyal customers are now above and beyond the word too. Some customers are now looking for "biodynamic" or "bioregional" food, instead of organic. Therefore, the media's interest in organic, which has entailed a rapid increase in demand for organic food, is reporting on a trend that is already outmoded in much of the

organic movement. "Organic" has now become widespread, but the people at the base who have assured the survival of organics, the farmers and their loyal followers, are ready to move on or have already moved on. "Organic", for many of them, is in the past. New words and practices are currently being explored, such as "ecological", "ecosystem-based" approaches, "biodynamic", and others. "Ecological" seems to be the preferred replacement for "organic" because it takes its roots in an ecological system:

"There's always a need to explain (organic) because it's so vague. (...) I think (ecological) speaks to an ecosystem-approach a bit more. But, for a title for our farm, I think (ecological) is much better. The word relates to ecosystems and the bigger approach, an integrated approach."
(Summer Fike)

A few of the farmers that I interviewed were still relatively content with the word organic, particularly because they could not think of any better word:

"S- Do you like the word organic?"
"P- Yeah. Nothing against it. I'm not somebody to fight over words. That's fine. It's all what people put into the word. It's easily confused with the chemical term, organic versus inorganic, but I think it has a meaning of its own. It can stand on its own. In the German language, it's called biological agriculture. I think organic is easier said than biological agriculture. It somehow sounds easier and better, so I'm quite happy with the word."
(Norbert Kungl)

"I think (the word organic) is very confusing to a lot of people. (...) I can't think of a better word, so... it'll do."
(Jennifer Scott)

Should the goal be to find another all-encompassing buzzword in this 'post-organic' period? Some of the farmers do not think so, because choosing just one word to describe such a large activity will not capture its full essence. Also, how will it be possible to satisfy

everyone and every operation with just one word, especially in a discipline that is supposed to be independent, flexible and regionally-adapted?

"Let's be very direct about what the genuine motivation would be for an 'organic farmer'. I think the fundamental basis is caring for all beings. So, that's not a catchy word that we can use, but I think if we're talking about genuine farmers, genuine gardeners, genuine foresters, I think that has to be rooted in caring for all beings. (...) So the ground is caring for all beings, and the path is becoming more skillful in reducing our impact on those other beings. So that's what I think many people wanted organic to mean. And, that's what many people wanted sustainable to mean. But, those terms have been co-opted by the industrial world, by the market economy, because they were good words and they kind of had a good reputation, so they were taken (laugh). So maybe we have to get away from trying to find one catchy word to catch the market place, and really think about and talk about how we live as farmers, how we live as gardeners."
(Jim Drescher)

"And, I know that there's a real kind of snobbery involved with (other terms). You know, there's biodynamically grown, and then there's just organic, and they always try to throw that word just, in. And personally, I've come to feel that it's really your understanding. You know, if you're a conceited snob, and your stuff's biodynamic, is it better than something that's ecological, but just organic? I mean, what's important here? And, for me, what's important is our understanding. So, I view my farm as an organism and I try to run it that way, as much as I can. But, I also think that dogma, whether it's biodynamic or whatever dogma it is, can be debilitating."
(Alex DeNicola)

Even with all the controversy surrounding the use of the term "organic", it appears that this term will be maintained, as national and even international standards for organic food are being legislated. "Organic" is rapidly infiltrating mainstream society, while farmers are increasingly dissatisfied with the word because the basic meaning of organic is being lost. Yet, many farmers will continue to adopt the word "organic" because it is the acceptable term in the marketplace. Consumers increasingly want organic food. And farmers who want to be economically viable will benefit from responding to this consumer demand. The economic implications of organic farming are examined in the next chapter.

Chapter 4: What are the economics of organic farming?

The main economic issues of organic farming include hired and non-hired labor, farm and off-farm work, the market for organic food, marketing and distribution, as well as obstacles to becoming economically self-sufficient. These issues are examined in detail in this chapter.

4.1 Economic implications of organic growing on farm, farm household, and on rural community

4.1.1 Hired labor

"Labour. As you expand, you have to decide if you want to hire people. And, if you hire people, you have to find a way to pay them. (...) At some point, you just can't do it on your own. You need to hire labor."
(Janet Wallace, discussing labor as a barrier to expansion)

Hiring outside labor is usually a turning point for any farming operation, including organic farms. It generally means that the farm is shifting from an emphasis on sustaining the farm household's food needs and selling some surplus, to becoming more commercial and depending on the farm for a proportion (or all) of the household income. In Nova Scotia, it seems that many organic farms have not yet made this transition, as 55% of the questionnaire respondents did not hire laborers in 1997. Since many of these farms are small scale operations, they can still be managed by the farm household. Many of them do not see the benefit of having paid workers since their volume of production and their gross farm sales are relatively low.

The larger organic farms in Nova Scotia usually hire labor, since there is too much work for the farm household to handle by themselves. This hired labor varied from one

person hired for a few days of work during harvest on some farms, to 10-12 seasonal workers and some year-round workers on other farms. The average of this group seemed to be one to three workers during the growing season. The hired workers normally do not live on the farm; they are often residents of surrounding communities, who commute to work every day.

4.1.2 Non-hired labor

"We're a member of the WWOOFer program."
(Jim Inglis)

There are some alternatives for organic farmers who do not want to have paid labor, but who still need extra farm help. The most popular alternative is certainly the WWOOF program, which means Willing Workers On Organic Farms (see Appendix F). This worldwide association has chapters in most countries where there is substantial agricultural activity, including Canada, and it provides organic farms with some short-term volunteer labor. These volunteers stay on farms for a duration of a few days to a few months, and they participate in the daily farm work, in exchange for room and board and the experience of living on an organic farm. Approximately 30% of the questionnaire respondents had received WWOOF'ers in 1997, and many more farmers expressed an interest in joining the program in 1998 or 1999. Both the farmers and the volunteers pay a small yearly fee to become members of this association.

"We get a few apprentices from Québec or from other parts of Canada."
(Norbert Kungl)

Other alternatives to hired labor are apprenticeship programs and internships on farms (see Appendix F). These arrangements are generally long-term, for an entire season, or even for a year or more. Apprentices and interns stay on the farm, completely immersed in farm life, and they learn a variety of farm skills, as well as strategies to start their own organic farm. Some internships are also associated with universities, colleges, or private institutions, for academic credit. These types of programs play an important role in promoting farm and rural life, as well as raising awareness for organic ways of growing food.

Many of the questionnaire respondents benefited from these programs in 1997, as well as other less formal, volunteer help. More than half the respondents (60%) received non-hired help during that year, with volunteers and WWOOFers being the most important, followed by apprentices and interns. Many of the farms with non-hired help also have some hired labor, which indicates that non-hired help can be adopted as a strategy to decrease labor costs by combining paid and unpaid workers. Other respondents are taking advantage of the non-hired help that is available to start expanding their operation, without increasing their labor costs.

4.1.3 Household labor and off-farm work

"Usually, (organic farmers) are working outside of the home."
(Laurie McGowan, who works as a carpenter)

Even with hired and non-hired help, most of the work on organic farms in Nova Scotia is still carried out by the main farm operators. On 59% of the farms (based on the questionnaire responses), all of the family members contribute to the farm on a daily basis.

On the other farms, the family members who do not contribute daily may be children who are too young to do farm work, children who are not interested in farm work, or adults who have full-time work outside of the farm. Approximately half of all adults on organic farms (53%) have part-time or full-time off-farm work.

Figure 4.1 Percentage of off-farm workers

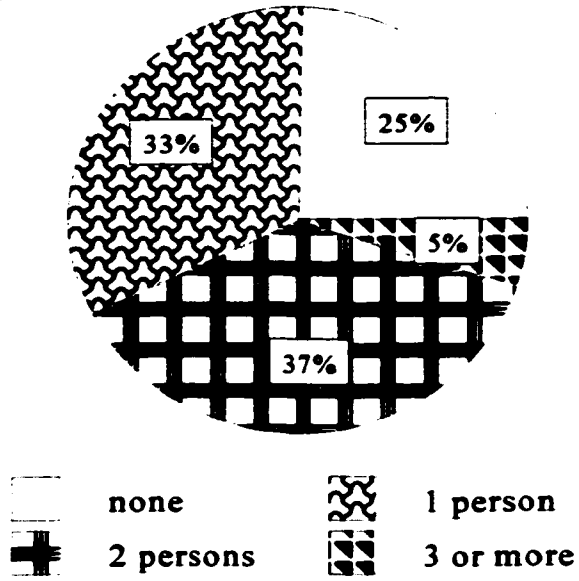


Figure 4.1 demonstrates that 75% of the farms have at least one person working off the farm, and frequently two persons. As seen in previous sections, outside income is often crucial when establishing an organic farm because the start-up costs are so high. The farms without off-farm workers are usually run by long-time, established farmers, or people who are retired from off-farm work, who do not need extra income from outside the farm. Some newcomers to organic farming are also trying to make a living with their farm by putting enormous amounts of energy into the farm, and avoiding outside employment. These

farmers often adopt several strategies to overcome financial difficulties on the farm, instead of off-farm work, which are discussed in a later section.

4.1.4 Community connections

"We support the local economy, and I think that's part and parcel of the overall picture. (...) You buy at home if you can. And, even if it's not what's healthy for you, you try to make as healthy or as wise a choice as you can."
(David Chute)

Another important element of the organic lifestyle, as seen in the previous chapter, is the link with the local community. This community dimension is social, in terms of involvement with the schools, membership in clubs such as Lion's clubs, participation in community events, and so on, but it also includes an economic dimension. During the interviews, organic farmers often mentioned the local aspect of growing, distributing, and buying food, as being a fundamental aspect of organic farming:

"We don't believe that organic growing can be large. Once you start selling your produce in Halifax, or exporting everything off the farm, or so far away that nothing comes back in return but money, then money won't benefit your farm in a way, building up a local economy or a local community."
(Heather Campbell-Gilbert, a grower in King's county)

As organic farmers generally choose the organic lifestyle because they disagree fundamentally with large-scale, commercial agriculture, they try to be as integrated as possible in their local community. Some farmers achieve this by hiring farm workers from the surrounding area:

"That really defines our role here, where we provide employment for half a dozen people on a seasonal full-time basis, and for another 10 or 15 people as a seasonal part-time basis. (...) Most of them are locals. (...) It brings a few dollars here, into the community. It provides some employment."
(Norbert Kungl)

This can be extremely beneficial for the community, since rural areas in Nova Scotia are, for the most part, stricken with stagnant economies and high levels of unemployment. It can also provide rural residents with a connection to farming and food production, whereas commercial farms are generally isolated from rural community life, and their food supply often does not stay in the immediate area. Many organic farmers are also conscious of supporting other local businesses for their equipment and other farm material, as well as when buying food that cannot be produced on the farm, in order to create a rural economic network. Again, this network is related to the ecosystem principle in which all the elements of the rural system support and nourish each other, and this results in a more cohesive, vibrant ensemble.

This vision is admirable in theory, and some organic farms are actually making a difference in their rural communities, in tandem with other community groups, businesses, and other farmers. However, as mentioned previously, there is a general disregard for farming in general, and also for organic farming, among conventional farmers and rural residents who do not practise farming. There is still much work to be done vis-à-vis organic farming, in rural communities and with rural residents, as most of the interest in organic farming, as well as the demand for organic food, is still centered in urban areas.

4.2 The market for organic products

"I wouldn't be in organic if there wasn't this tremendous upward swing in demand for it. I wouldn't be able to make it."
(Neil Van Nostrand)

"We could probably grow more and still have no problem selling."
(Shannon McGowan)

"I think the tendency will be to just deal with an expanding market demand. That will be the story for the next years. And, I think we're (...) at the brink of a major expansion."
(Norbert Kungl)

The market for organic food in Nova Scotia is still uncertain. A recent estimate predicted that the market for organic and free-range products reached 3.7 million dollars in 1994, with approximately 2% of the population having purchased organic food during that year (Nova Scotia Department of Agriculture 1995, p. 6, p. 8).

As discussed throughout this thesis, and in many media reports, consumer demand for organic products is growing tremendously. This demand is particularly apparent in Europe, and in the large urban centres of North America. Nevertheless, it is making its way to more peripheral areas at a fairly rapid rate. Many of the growers interviewed have observed this important increase in demand, especially in the last few years. Some well-established farmers also consider themselves to be in an ideal position as organic farmers in Nova Scotia, because the production of organic food is not growing as quickly as the demand for organic food. This means that organic farmers generally have no problems selling their products, and that they do not have to focus as much on finding markets and advertising. These farmers also mention that the number of organic farmers capable of supplying food to the markets is still relatively low:

"So far, the market itself is growing at the same rate that we're able to produce it. And, that's good. It keeps prices stable. There's a good return. There's enough people (producing organic food). And, the number of (organic farmers) is growing at a reasonable rate. Yeah, it's a healthy balance."
(Paul Colville)

"What I've really noticed is the demand for organics has grown tremendously, certainly on the wholesale side, where we sell to the (supermarket chains). (...) And also, at the farmers market (in Halifax), the demand for organic and for good quality organic has really grown tremendously. (...) We still don't produce quite enough. The demand seems to be always a step ahead of us. And, in the meantime, there have been a few other growers (...), and they have either started up new, or increased their production a bit, and still we don't feel like there's any competition, because each and everybody seems to be able to sell what they have."
(Norbert Kungl)

The market for organic products in Nova Scotia is mostly concentrated in urban areas, particularly in Halifax, the largest urban centre in the province with a population of approximately 200 000. There seems to be more awareness, interest, and demand for organic food in cities because the consumers have more disposable income and can afford to pay premium prices for food. There also seems to be a correlation between the level of education of consumers and their interest in buying organic food (Whitteker 1992, p. 16). Halifax does display higher levels of education and more disposable income than the other parts of the province (Statistics Canada 1994), so that the demand for organic farmers who distribute their products to the Halifax market is plentiful.

There is also a certain amount of demand for organic products in small towns with many professionals and with an 'alternative' cultural community, such as Wolfville, Lunenburg, and Annapolis Royal. Organic farmers who want to concentrate their activities in rural areas, and want to find local markets for their products, however, are finding it much more difficult than farmers who bring their products to larger markets:

"There's no market here (Annapolis Valley). It's hard to start doing it (organic farming), without having enough to go to Halifax."
(Janet Wallace)

Questionnaire respondents chose 'limited market for organic products' as the sixth most important disadvantage to organic growing, which might reflect the lack of 'rural' demand for these products (see Table 3.4). The 'urban' demand also has implications for organic farmers in terms of marketing, and distribution, as discussed in the next section.

4.3 Marketing and distribution of organic products

4.3.1 Marketing of organic products in Nova Scotia

"Most people don't realize how expensive marketing is, and they don't realize that you have to invest in your marketing. It isn't just standing there with a chicken in your hands saying: 'Hey, I have a chicken'. You have to develop your market. And it's not just advertising. (...) You have to maintain a good vehicle. You've got to present yourself. You have to be clean. Just because you're a farmer doesn't mean you have to be dirty!"
(Paul Colville)

There are various issues linked with the marketing of organic products. These might not be seen as critical to the development of the organic food market, since the demand for organic food is soaring, but it is still an important element of financial success. For example, there is still much confusion surrounding the term "organic", in the marketplace. Much of the confusion is due to misinformation on the part of consumers and retailers, unclear labelling, and disorganization in the marketing system (Henning *et al.*1990). Organic products often end up being sold with conventional products because of these reasons, as well as because of regulations from commodity boards that are inappropriate for organic products. Commodity boards can make it difficult for organic food to be distinguished from conventional food, and marketed as such, because it is not recognized

as a separate commodity (Canadian Organic Growers 1992). However, as the demand for organic products grows, the marketing of these products is slowly changing.

Organic products are increasingly being sold in large volumes, in the mainstream distribution system, as organically-grown products. Many people in the organic community denounce this move to the 'mainstream', as they argue that "we cannot have a truly organic farming system on the farm without an organic marketing system in the supermarket" (Kirschenmann 1995). An organic marketing system would include a focus on diversity and variety, in opposition to the conventional food system which majors on control, specialization and standardization. This type of conventional marketing can undermine basic principles of organic agriculture, as farmers are increasingly separated from the food they produce, and consumers are increasingly separated from farmers.

Some consumers seem to be increasingly aware that their food choices have impacts in many areas of society and of the environment. Many organic farmers believe that the marketing of organic food should reflect this awareness. Until now, organic food has essentially been marketed as 'safe' food that is devoid of any artificial chemicals, additives, or hormones. These farmers wish to extend this aspect of organic food to include "food that is produced in a way that sustains the environment, and supports family farming and local communities" (Henkes 1995, p. 12). This wider emphasis will encourage a close connection between farmers and consumers as a fundamental aspect of organic farming, instead of having large volumes of food exported to unknown markets.

In Nova Scotia, where the market is still relatively small, these problems may not be as apparent as in larger agricultural areas. Yet, organic products imported from the United

States and elsewhere are being brought into the conventional market in Nova Scotia, even when local organic products are available. Consequently, local organic farmers are competing against imported organic food:

"(Some stores), they certainly sell a lot of organic carrots from California when farmers out here have carrots."
(Janet Wallace)

Retailers and wholesalers often prefer these imported products because of their convenience and availability. As the number of organic farmers and the supply of organic food increase in Nova Scotia, farmers will have to refine their system of production and the quality of their products, if they want to compete with conventional products, and imported organic products, in the markeplace:

"Because of the fact that there is more demand than supply, we don't have to advertise. We don't have to really go out there and fight for a market share. I think the problem in marketing, in general, is that still many organic farms have to improve their quality. (...) Their product has to be as appealing as conventional produce, and that is sometimes a little difficult."
(Norbert Kungl)

The rural markets will also have to be targeted and developed, as the current marketing of organic food in Nova Scotia is mainly geared towards the urban consumers, as this is where there is the most demand and interest in organic products:

"Halifax (is my main point of sale), at the market, and at Great Ocean (large health food store)."
(Jim Inglis, organic apple producer)

As a result, rural residents are often left unaware of the availability and benefits of organic products. Alternative methods of distribution might help to alleviate this discrepancy, as discussed in the next sections.

4.3.2 Distribution of organic products in Nova Scotia

"I think the roadside and farm gate would be great. To have almost everybody in the country buy their produce from that. And I think there's an unspeakable potential for co-ops, for cottage industries, for all that kind of thing to develop, so that people wouldn't have to go to the big grocery chains. They could support their neighbors, and shop locally."
(Alex DeNicola, a grower in Hants county)

Most of the respondents agreed that organic products should be sold as close to the farm as possible. This way, environmental 'costs' can be kept at a minimum, by limiting transportation for instance, and the money can stay in the community to build up the local economy. In the organic community, an often-mentioned goal is to make the local communities as self-sustaining as possible, and if there is a surplus of food remaining, then it can be traded or exported to other regions (Kirschenmann 1997, p. 3). Many farmers in Nova Scotia also hold this view:

"I think we should do away with exports, mostly. I think there should be some trading. (...) I like to eat brown rice, but I can't grow it here. But, I can come up with a lot of apples."
(Alex DeNicola)

The distribution of organic products in Nova Scotia can be difficult because the amount of food produced by each individual organic farmer is relatively small and their supply can be variable or uncertain:

"Distribution can be a real headache because we're talking small amounts."
(Craig Medicraft)

These two factors together (small volume and uncertain supply) make marketing and distribution particularly important. Organic farmers have to plan how they will market and distribute their product very strategically. They know that the demand for their product is there, so that they are nearly assured of selling it, but not of maximizing their return. This

is due to the fact that "the main cost of food is not production, but rather distribution" (MacRae 1997, p. 6). Most of the revenue from the food industry goes to transportation, distribution, and retailing, which leaves very little revenue for the farmer. This is the case in conventional distribution channels which thrive on large, homogeneous volumes of food, and which are not always appropriate for organic growers who deal with small amounts of diverse products:

"I don't know of any successful organic farmers that have been left with a pile of unsold produce at the end of the year. It's very unusual. Unless they did a very dorky thing and tried to sell it through a channel that it wasn't meant to take, like big wholesalers, big warehouse bulk suppliers."
(Rick Gilbert)

Organic farmers, therefore, should explore alternative distribution channels which are more suited to their supply, and through which they are assured a better return on their products because the transactions are much more direct. The different distribution channels are now examined, highlighting the advantages and disadvantages of each of them.

4.3.3 Wholesalers and retailers

"I think that there is an interest from the wholesalers and retailers. (...) I think it's because customers go into the stores and ask for it. That's the only reason. (...) I don't think there's a whole lot of effort to understand it. Just as long as they can get something on the shelf that the customer wants and that brings the customer to the store."
(Jennifer Scott)

"The wholesalers and retailers that we've run into are supportive only to the extent that they'll make their money from it, you know. There's no one out there just saying: 'yeah, I'll sell it, and not make that much, just because I believe in it'."
(Summer Fike)

The fact that wholesalers and retailers are only interested in 'riding the organic wave', or that they are 'only in it for the money' was mentioned time and time again during

the personal interviews. Many farmers believe that food wholesalers and retailers are solely driven by consumer demand, so that if enough customers ask for a certain type of product, they will find it and make it available to them. This seems to be particularly true of wholesalers and large supermarket chains. Some farmers give credit to certain retailers, who are motivated by ethical values, as well as by consumer demands:

"Well, from wholesalers, I would say, there you're talking about purely a market. So, if they can make money with it, fine. If not, they're not interested. Retailers are a more diverse group. You have small retailers who are really committed to doing things right. (...) Then, you have kind of industrial retailers like the Sobey's and Superstores of the world, and again there, it's purely part of an industrial paradigm. As much money as you can make, as fast as you can make it, with no ethical content."
(Jim Drescher)

Some of the smaller and more independent retailers, such as health food stores, 'Mom and Pop' stores, and Co-op supermarkets, among others, seem to be genuinely interested in carrying and promoting organic food. Part of their mandate is often to support local producers, so that having a supply of local organic food is usually welcome. The larger retailers and supermarket chains, however, do not view local organic food with such a favorable eye. There are often problems associated with marketing organic products through these types of retailers for farmers, such as having to guarantee a consistent supply, having to deal with uneducated personnel, and having to change their farm operation and products to conform to their demands:

"The big chains want (organic products) to fit their operation, which is expensive. I was talking about bar codes earlier and that sort of thing, and that's expensive, or beyond a small operation's capability to do."
(Jim Inglis)

For the organic growers with large volumes, selling their products through wholesalers and supermarket chains may be beneficial in terms of exposure and convenience. These distribution channels are often difficult for the smaller organic growers because of the reasons mentioned above, and also because of the relatively low rates of return. The first alternative mentioned above is to focus on small retailers that specialize in 'health' foods, or on 'local content'. These retailers are often motivated by reasons other than purely economic ones, such as wanting to support local farmers, and wanting to support more environmentally-conscious methods of farming.

4.3.4 Farmers' markets and farm gate sales

"Generally, the (organic) produce is sold through a farmers' market. (Farmers) are either going to Halifax (farmers' market) or the local (farmers') markets. Direct sales too." (Shannon McGowan)

Points of sale	Number of responses	Rank
Farm gate	30	1
Farmers' markets	18	2
Health food stores	10	3
Restaurants	10	3
Wholesale to farmers	6	5
U-pick/Pick-your-own	5	6
CSA/buyers groups	5	6
Independent supermarket	4	8
Supermarket chains	4	8
Direct sales	4	8

Figure 4.1 Points of sale for organic products in Nova Scotia

As seen in Table 4.1, the majority of organic farmers sell at least part of their products through farm gate sales and farmers' markets, two important alternatives to conventional distribution channels. Many farmers also seem to combine more than one point of sale; for example, most growers who have a booth at a farmers market also do farm gate sales, because of the flexibility involved with them:

"I like dealing with the farmers' market or the people come here directly.(...) To deliver things to (retailers and restaurants in) Halifax is a 2-hour drive. You want to have a truckload, and you want to know it's sold when you get there. And that's hard to do." (Craig Medicraft)

Farmers' markets are well-suited to small scale growers with organic products, for various reasons. First, they are less time-consuming for the farmers, since they require little effort in marketing and in negotiating with retailers and wholesalers. Farmers simply have to book a booth, pay for it, bring their products, and display it nicely, at fair prices. This may sound a little too simplistic, since much preparation is needed to 'go to market', such as cleaning the produce, sorting it, packing it, pricing it, and this usually results in very little sleep the night before the market. Secondly, farmers' markets promote many similar values as organic agriculture, such as promoting diversity, and contributing to the local economy:

> As bridges between the formal and the informal sectors of the economy, (farmers' markets) enable individual entrepreneurs and their families to contribute to the economic life of the local communities by providing goods and services that may not be readily available through, formal, mass markets (Lyson *et al.* 1995, p. 112).

Farmers' markets, therefore, are both economically and socially beneficial, for the community, as well as for the farmers. These weekly events often encourage co-operation between farmers, other vendors and consumers, in terms of community projects, as well as

agricultural issues. Many farmers also expressed how the weekly contact with customers and neighbors at the farmers' market was as important as the selling aspect:

"It's my social trip of the week, whether I make money or not."
(Danny Bruce, who sells at the Annapolis Royal farmers' market)

Another advantage of farmers' markets for organic growers is that they provide a closer connection between farmers and their customers, that might not be possible if they sold their products to supermarkets or restaurants. Through this direct contact, consumers are able to ask the farmers questions about their farm, and their specific growing methods, before deciding whether to buy their products or not. Farmers can also alleviate some of the confusion surrounding organic food, by explaining what organic food is, and how it is different from conventional or other types of food. Many of the respondents stressed how important this relationship between farmers and consumers is, particularly in organic farming. Several growers, however, believe that farmers' markets are not as suited to nurturing this relationship as direct sales or farm gate sales. This seems particularly true in large, urban farmers' markets, as compared to rural, community markets:

"(Farmers who sell in large farmers markets), there's not a trust relationship. It's how much is this?', and that's the extent of the relationship."
(Rick Gilbert)

"On their farms. It's really important that people who eat food have some experience with where that food grows. (...) Consumers get a flavor of farming by going to a farm market and talking to farmers. But, I think that we should realize that that's really...it's a gesture. It's kind of a taste or a glimpse. It's not really what we're trying to do. What we're trying to get people to do is to experience farming."
(Jim Drescher, replying to where organic products should be sold)

One of the main goals of farmers who produce and sell organic food, is to contribute to a closer link between people, and the food that they eat. For some farmers, this can be done by having a table at the local farmers' market, and talking directly to the consumers about the products on the table. Other farmers believe that farmers' markets are just a step above supermarkets, so that consumers simply come and buy the food without considering who produced it, or how it was produced. According to these farmers, the distribution of organic products should be done from the farm itself, so that consumers can familiarize themselves with the work that goes into growing food. This reconnection with the food and where it was grown is the foundation of Community-Supported-Agriculture (CSA), another distribution option which is discussed in the next section. It seems that the main issue in this debate of farm gate sales versus farmers markets, and alternative versus conventional channels, is the perceived 'danger' of becoming too 'big' or market-driven, so as to lose sight of what is important, such as this farmer-consumer link:

"Organic works best when you're small enough to be able to do a professional job for an identified customer. So that when you can link up the customer with the producer, and have it economically viable, then you've got a perfect dance. The rhythm is there, just right. And that can only be done when you're relatively small because once you get so big, you lose the contact with the customer. So, it's a very delicate line."
(Paul Colville)

4.3.5 CSAs: An option for the future?

"I know there's a lot of farmers around here who thought I was out to lunch when I first came, and I'm proud to say that I changed some of their minds."
(Summer Fike, who started the first CSA farm in the Maritimes 3 years ago)

Community Shared (or Supported) Agriculture is relatively new in the Maritimes and even in other parts of Canada. It consists of many elements, as the following definition demonstrates:

> In the CSA model, shareholders (either individuals, families, or households) buy a portion of a farm or garden's produce at the beginning of the growing season, and in return receive weekly shares of the harvest. Farmers benefit by having operating funds available up-front and a guaranteed market for their crop, while consumers receive a diverse supply of fresh, organic produce. (...) Shareholders often have the chance to visit and work on their farm.
> (Brown 1995, p. 1)

This type of entreprise is especially attractive for small growers who have limited financial resources, as well as limited and varied volumes of food, as they can model their CSA on their particular farm situation. The number of shareholders is variable, the amount of food offered within the shares is variable, and the actual organization of the CSA is flexible. Another advantage of CSAs is that the farmers are assured of an outlet for their products. In addition, there is much less waste than in a farmers' market situation where the amount of food sold is inconsistent, and often results in much wasted food. In a CSA situation, farmers know exactly how many people they will be delivering food to each week, so the distribution is much easier to manage. The supply can also afford to be more variable, as farmers usually deliver a box or basket of produce to each shareholder each week, and its contents can vary according to what is available and what is ready to be harvested.

CSAs also reinforce the link between the consumers and the food that they eat. This is partly done by direct contact with the farmer during deliveries or pick-ups, but it extends beyond that. Shareholders are often encouraged to get involved with some elements of farm management and the farm operation. Some are involved with the choice of crops at the beginning of the season; some participate in farm work on a regular basis. When they become shareholders, they also accept that each farm season is different, and that the supply of certain foods is not guaranteed:

"I think that one of the CSA values that is so important is that it makes the consumer take some responsibility for the food system, and its distribution, and its production. In big grocery stores with certified organic, the consumer doesn't have to do anything in that process."
(Summer Fike)

CSAs also create community links through social activities with other shareholders, through the exchange of business cards to support the other shareholders' businesses, and so on. Again, this type of distribution pattern shares many values of the organic lifestyle, and that might be why it is gaining so much popularity across North America, and even in Nova Scotia. Aside from the established CSA farm quoted at the beginning (Summer Fike), several of the farmers interviewed expressed a desire to move towards a CSA model. Some other farmers have even started their own CSA, on a small scale, and on a trial basis, and are planning to expand:

"A CSA, I could see doing that. (...) I'd rather just supply so many families. (...) People should see where the produce comes from. They should see a chicken running around... a chicken doesn't grow on a styrofoam plate!"
(Kerry Wentzell)

"That's one good thing about a CSA. (...) Customers come to the farm or (farmers) deliver a box of whatever happens to be available. That's what (customers) get. We're moving in that direction. (...) We're going to try and market the Greenwood area, mainly because I know a lot of people, being in the airforce, and they're fairly affluent. They're professionals, so they have a little more (money)."
(Craig Medicraft)

CSAs do have some drawbacks, however. As mentioned by the previous farmer, shareholders must have a lump sum of money available at the beginning of the growing season to devote to buying a share. Some CSA operations have flexible payment systems, by which shareholders can divide their payment into more than one installment, or can work for a part of their share, and so forth. However, people are accustomed to spending a certain portion of their weekly or bi-weekly budget on food at the local supermarket, and parting with 300 dollars or so at the beginning of the summer to have fresh produce during the whole season (and sometimes eggs, bread, honey, and other products) requires a slightly different mindset. And, as Summer Fike said, some consumers try it for a year, and then they go back to their previous routine of buying at the supermarket, because of habit or for other reasons. Therefore, farmers generally have to organize a marketing campaign to sell shares, at the beginning of each season. Another possible drawback is that farmers lose some of the management control on their farm. As shareholders, members have a right to make certain demands, and to request certain changes. This is disturbing to some growers, who prefer to maintain their independence in terms of their choices:

"(Direct marketing), to me, that's ideal because it keeps the decision-making on the farm, what we grow and how we grow, while in the CSA, there's a fair part of involvement of the consumer on the production side. (...) It's a wonderful concept, but the farm, in a way, isn't your farm."
(Michael Wolter)

Direct marketing and buyer's groups are less-involved versions of CSAs. They generally consist of several groups who are interested in buying food from a certain farm. There is usually a person in charge of collecting the orders and the money in each of the groups, in exchange for free delivery or produce. The farmer delivers his/her products to that person, who then takes care of distributing each member's order.

There are many choices available to organic farmers when it comes to distributing and marketing their products. The appropriate avenue usually depends on the type of farm, the type of products, the scale of the farm and the amount of food to be distributed, as well as the personality and the availability of the farmer. Another important consideration is the uniqueness of the product. Organic food is still relatively rare in the marketplace, and some farmers might want to take advantage of this opening to develop niche markets. An issue that then arises is: should it cost more than other food?

4.3.6 Premium prices for organic food

"So, why do organic products cost more? It takes longer to grow them, our crops are smaller, we have to do it by hand."
(Jann Chute)

"You can be swayed to pay a little more for organic because we don't have the subsidies and things that conventional farmers would have. It's a lot more labor-intensive, and you can't treat it to store it, or whatever. You can't wax an organic apple to keep it fresh. You can't ship them in waxed cardboard boxes."
(Heather Campbell-Gilbert)

Should consumers be paying more for food that is grown organically? It is already well-known that organic farmers have slightly higher production costs than conventional

growers, due to increased labor and management needs (Whitteker 1992, p. 15), and that was reiterated by the respondents:

"My costs of production are 3 to 4 time that of the conventional growers."
(Jim Inglis, an organic apple producer in the Annapolis Valley)

Some organic farmers believe that the higher price of organic food is justified because of the above reasons, and because of its better quality. Other farmers think that premium prices for organic foods are ridiculous in a 'poor' province like Nova Scotia. They argue that it is important for consumers to get good food that is also affordable. One way of achieving this is by consumers buying through the alternative distribution channels mentioned before, instead of through supermarkets:

"(People in Nova Scotia) don't have much money to spare, disposable income like in other provinces, so if people don't see organic as something different, then they're not willing to pay for it, which makes sense. And, it is more expensive. Which is why it's good to buy from the farmers because it cuts out the middle-person, so it's cheaper than if you buy it at the conventional store."
(Janet Wallace)

Some farmers view all food as under-priced. They imply that the current prices of food do not adequately reflect the effort that goes into producing it. These farmers believe that the price of food should be higher than it is, and that the price of organic food should mirror its quality:

"The more (organic) grows, the more the price will go down, or will stabilize anyway. Not that I'm advocating for prices of food to go down. I think we're not paying enough for food. And, if we really appreciated it, we wouldn't mind paying a decent amount for food. I can never begrudge paying good money for good food, ever!"
(Jennnifer Scott)

Still, other farmers campaign against differentiating between organic and conventional food, arguing that it does not matter if you sell food as organic or not because

you will get the same price for it. They do not understand why organic food should be labelled as such, since it is simply grown differently than conventional food:

"You wouldn't have to call it organic, and you'd get the same price for it. What difference does it make? Someone out there is getting good food."
(Heather Campbell-Gilbert)

I think that many farmers and consumers would oppose this tactic, for reasons such as the consumer's right to make an informed decision, and particular health problems like environmental sensitivities, in which case organic food is necessary for the consumer's health.

Now that the main marketing and distribution issues have been discussed, it is possible to look at the different economic barriers that might hinder organic growers' access to markets, as well as the long-term economic viability of organic operations.

4.4 Economic barriers to organic farming and the strategies to overcome them

4.4.1 Economic barriers to organic farming

"Barriers?... You mean besides money?"
(Alex DeNicola's reply, when asked what barriers exist for organic farmers starting out or expanding)

"The costs, the start-up costs, are difficult."
(Paul Colville)

As repeatedly mentioned, the scarcity of start-up money and of maintenance money are two very important barriers for organic growers. The start-up costs usually include buying land and a house, restoring the land to an adequate level of productivity (in most cases, the land has been abandonned for quite some time), and acquiring the necessary

equipment and supplies. These expenses are the reason why many organic farmers take off-farm employment, at least until the farm has reached a level at which it can financially sustain the farm household.

Before it reaches this sustaining level, however, many steps have to be taken, such as devising a marketing and distribution scheme, and putting it to the test. These steps can be particularly difficult in a low-populated and marginal area like Nova Scotia, where the market for organic food is still variable and sometimes hard to locate:

"(Nova Scotia) is so economically-depressed! I'm so sick of being so poor, and it's so hard to make ends meet. (...) So, I'm finding financial barriers everywhere we look."
(Summer Fike)"

Another barrier is competition, not local, but global. Organic food can usually be brought in from California or elsewhere, through conventional channels, cheaper than it can be produced in Nova Scotia. This puts the small organic growers at a disadvantage, as they cannot lower their prices low enough to compete with cheaper imports:

"The whole global economy is a barrier in that there are very uneven playing fields in the world, and you're going to have to compete against those. And, the bottom line is, that people are not going to pay 5 times the amount for your produce, so you better find a way to bring (money) in, and bringing in enough to make a living."
(Craig Medicraft)

These economic barriers discourage some organic farmers, who decide either to leave farm life behind, or to keep it as a 'side-line' instead of a main source of income. Many other farmers, however, draw from the fundamental principles of the organic lifestyle, such as innovation and diversification, to devise strategies to cope with these financial hurdles, as discussed in the next section.

4.4.2 Strategies to overcome the financial barriers

"Once it gets to be routine, I'm on to something else.(...) I knew nothing about grapes when I started a winery. (...) So, you need these little things to kind of keep you going."
(Neil Van Nostrand)

"And long term goals is to diversify more, not to put all our eggs (in one basket). (...) We've got a number of possibilities... there's possible maple syrup, there's posssible ginseng, grapes..."
(Joy Elliot)

Two strategies that are often adopted to overcome financial barriers on organic farms are to take risks, and to be diverse. The risks may consist of trying out new crops or products without knowing where it will lead, and being willing to accept that it can be fruitful or not. Sometimes, a newly developed product can be exactly what was missing in the local marketplace. Sometimes, there is absolutely no interest in the new product, and it has to be abandoned. Organic farms are favored in this regard, since they naturally grow a diversity of crops. They can afford to take these risks, and to try out new crops. This diversity, in itself, offers some protection to organic growers against market variability and unpredictable weather conditions. If one crop does particularly poorly, there is usually another crop to fall back on, in contrast to large scale monocultures which rely on one single crop:

"One of the positive strengths of our form of agriculture is the diversity, not only from the biodiversity, but it also makes us more economically stable because if we lose a whole crop, we can usually still survive because we have a lot of other crops."
(Janet Wallace)

Other growers, in the early stages, try to concentrate their farm activities on what is lucrative, even if these are not the prefered activities on the farm. Here are a few examples:

"The truth of the matter is, (custom-killing poultry) brings in a couple of thousand dollars in the fall, so I can't just (stop doing it). Until we start bringing money from other places at that time of year, we'll keep doing it, but I'm hoping someday to get out of that."
(Craig Medicraft)

"We'd probably have to be much larger scale before we can start making money on vegetables. Whereas the meat, I think you can at least cover your costs and make a little money on a smaller scale."
(Paul Muto, who produces some lamb meat)

Along the same lines, many farmers are developing on-farm businesses that run parallel to the farm operation. According to the questionnaire results, 76% of the respondents are doing some kind of on-farm work that is not purely agricultural in nature. This includes food processing, crafts, and woodworking (intended for sale); farm holidays in the form of Bed & Breakfasts, hostels, or camping; medicinal herbs and products; hay rides and all sorts of other farm-related events. These small businesses often boost the local economy, while they permit organic farmers to 'survive' on their farm:

"I started a catering business, and I'm trying to use (our farm products) in that too.
(Julie Medicraft)

"I do weaving. I sell it at craft shows and on consignment. I'm also looking into doing twig furniture. Oh actually, I'd like to start doing some herbal teas. (...) You can do a lot more than you can do in cities. Like when I started making bread, I started selling bread. I learned how to weave and I sold weaving. You can do all these different little things."
(Janet Wallace)

Another option for growers, that does not seem very widespread in Nova Scotia at the moment, is putting the emphasis on processing organic food, instead of simply producing it. This may be due to the fact that there is a fundamental opposition between organic food and processing. People usually buy and eat organic food because it is more 'natural', and it has not been subject to numerous transformations and additives. There is, however, some

organic food which benefits from being transformed, such as various grains and soya beans. Sian Newman-Smith is a producer of organic tofu in the Antigonish area agrees that processing organic products is a viable option for struggling organic farmers:

"But I think that definitely, growing stuff and then doing something, value-adding it, is a much better way to go, than being the primary producer."
(Sian Newman-Smith)

Finally, Paul Colville offers some words of advice, taken from his 25 years of organic growing experience. He believes that there are three possible options available to new organic farmers who want to become economically sustainable on their farm. The first is the CSA approach mentioned previously. This really seems like the up-and-coming trend for organic farms, as well as for consumers of organic products, primarily because of its flexibility. The second option is to supply a larger farmer with extra produce, so that this farmer can sell it at a farmers' market, supermarket, or other. This alleviates much of the stress of marketing and distribution since another farmer is taking care of it. The disadvantage is that the returns are not as high as with direct sales since the farmer is buying the produce at a much lower price than if sold directly to consumers. The third option is to develop co-ops with other farmers. This pooling of resources might reduce production costs, and increase the visibility of the farmers involved.

A number of strategies are attempted and adopted to surmount the financial pressures associated with organic farming. Similar pressures exist on conventional farms, yet organic farmers seem somewhat better equipped to deal with them. Organic farmers offer a specialized product that is very much in demand. They have low or non-existent debt loads. They are skillful managers, capable of innovation. The farms are diversified in their crops

and activities, so that farm income is not dependent on only one source of revenue. Even with all these strategies, can organic farmers make a living being organic farmers, and do they want to make a living at it?

4.5 "A good living?"

4.5.1 Do organic farmers want to make a living with their farm?

"We're not really in it for the money, but we want to make ends meet."
(Julie Medicraft)

Opinions diverge greatly in relation to this question. Well-established organic farmers obviously want to make a living from their farm, since they have been working on achieving financial 'security' for many years, and are now living from farm income. Other farmers often have another form of income, such as a pension, that alleviates the pressure of making enough farm income to entirely support the farm household. And, as mentioned previously, many farmers are currently working towards achieving an economically-sustaining farm operation, by working off the farm.

Many other farmers, however, do not strive to achieve economic profitability on their farm, through their farm activities:

"Our goal isn't to become a huge organic farm.(...) Just self-sustaining."
(David Chute)

"We'd like to be as self-sustaining as possible. I don't see it as a money-making end of things, as far as growing for market."
(Shannon McGowan)

Why are these farmers striving to sustain themselves in terms of food, from their farm, but do not want to make 'a living' with their farm? Do they realize the amount of

work and effort that it would take to reach this level, and they are not prepared to do this? Do they want to avoid the industrial model of production-consumption? Do they prefer to devote more time to off-farm work that provides a sort of balance to the farm lifestyle? Are the markets for organic food too difficult to crack? The following section tries to shed some light on these questions.

4.5.2 Is it possible to make a living farming organically?

"A good living? If you don't mind working 7 days a week, 12 hours a day, that's a good living."
(Danny Bruce)

It is interesting to note that 71% of respondents think their economic situation is the same or better than conventional farmers. Does this mean that many conventional farmers are not making a living on their farm either? Or, do organic farmers attach less importance to their financial situation than conventional farmers? It seems that many people who are currently farming organically in Nova Scotia have moved here from elsewhere in Canada, the United States, and even the world, because of its slow-pace and 'backwardness'. They felt that in Nova Scotia they could operate a small-scale farm without extreme competition or market stresses:

"H- (In Nova Scotia), you can do it on a small level."
"R- Where there isn't a huge market or huge pressure."
"H- There's no competition."
"R- You also have time to do it right, I would think, here."
(Heather Campbell-Gilbert and Rick Gilbert)

Since the cost of living and the price of land is relatively low, Nova Scotia appears to be attractive for people who want to live an alternative lifestyle, with some income from

farming and some income from elsewhere, without having the ambition to become 'bigger'. Most of them believe that they could make a better living near larger, urban centres, but they are not interested in doing so:

"I think the Maritimes are a little bit behind, I guess. 'Cause the market here, even though it's expanding every year, I think that compared to some of the bigger cities (...), where the population is less conservative and a little bit more educated... then, the demand is bigger.(...) I think economically, it might be better somewhere else."
(Alex DeNicola, when asked if Nova Scotia is a good place to practise organic farming)

"Realistically, if you want to make a living at farming, you should be in Ontario, or Québec. You should be where the population base is."
(Craig Medicraft)

Some farmers have adopted some of the strategies discussed in the previous section so successfully that they are now making a 'good' living with 'organics'. A prime example is Sian Newman-Smith, the organic tofu producer, who was not sure that it was possible to make a living with it when she first started, but is now grateful that she persevered:

"We literally worked for a dollar an hour for years and years. (...) Now, we are (making a living), and what a boost. I mean, making money at what you do is just such a gratification. It makes it all worthwhile."
(Sian Newman-Smith)

Many other farmers do not wish to achieve a similar level of income, since economic gain is not the principal reason why they chose to establish their own organic farm.

4.6 Difficulty in reconciling organic values with commercial interests

"Because of market aspects of commercial organic growing in the province, in Nova Scotia, the only thing I can point to is the whole atmosphere and community of organic growers is becoming a lot more competitive and edgy, market-driven... I can see people affected by external forces more than what's happening on their farms."
(Rick Gilbert)

With the growth of the organic food industry, the increase in consumer demand for organic products, and the heightening recognition of the organic movement, many organic farmers are worried that the fundamental principles of organic growing will be lost. The organic movement grew out of dissatisfaction with the corporate model of agriculture, including the methods of growing, the lifestyle associated with it, as well as the way this food was processed and distributed. The organic movement wanted the emphasis in agriculture to be on farm practices and lifestyles that were 'in tune' with nature, on being integrated in the local community, and on methods of distribution that would be fair to farmers and consumers, and as direct as possible. Many farmers are now observing that organic agriculture is slowly leaving behind these fundamental principles, in order to adopt the industrial way of doing things. They argue that the only part of large-scale organic agriculture that is different from conventional agriculture is the fact that no artificial chemicals are used when growing the food:

"Do we want a model of organic agriculture that follows corporate agriculture? (...) I would say the biggest setback, the biggest frustration, is that I think organic agriculture has gone the way of conventional agriculture. (...) As a movement, we haven't questionned the methodologies of conventional agriculture."
(Summer Fike)

Many countries, including Canada and the United States, are currently in the process of drawing up standards that would regulate organic food. This is also a debated issue in the

organic community, as it is seen by some to be working with the industrial model, towards the "commodification" of organic food (Winfield and Rabantek 1995, p. 36). This is discussed further in the next chapter.

Chapter 5: The organization and politics of organic growing

5.1 The organic associations

5.1.1 Nova Scotia Organic Growers Association (NSOGA)

The Nova Scotia Organic Growers Association was officially formed in 1993, by a group of volunteers. It defines itself as "a grassroots movement promoting wholesome food, sustainable communities, and wise stewardship of the earth" (NSOGA brochure). Its activities include "organic certification, farm tours, harvest socials, workshops, conferences, on-farm research and publication of educational material" (NSOGA brochure). The membership fluctuates around 100, and is made up of "farmers, gardeners, consumers, environmentalists, scientists, educators and health practitioners" (NSOGA brochure). The organization seems to have been relatively open to people with all these different interests and backgrounds from the beginning, but according to some growers, it has recently become more of a consumer-based organization. This is demonstrated by the fact that the new president of NSOGA, elected in 1998, is the manager of a large health food store in Halifax, and has replaced the past president who was a grower in the Annapolis Valley.

"It's interesting that the NSOGA has recently shifted now to become more of a consumer-oriented group. I think a lot of people now on the Board of Directors are Halifax-based. Some of the farmers are complaining a bit about that, but I don't see it as a bad thing because, first of all, the people from Halifax have the time to run the organization, and they get the information out to a larger market, which ultimately will help the producers more, if they can get more growers interested."
(Paul Muto, a grower on the North Shore)

This shift can thus be seen as positive since the farmers might not have as much time and effort to contribute to the organization, especially at certain times of the year, while consumers and other people who are really committed to organic food, might have more

time to devote to activities and planning, as well as to promoting organic agriculture in urban and rural areas. On the other hand, this all-encompassing appeal can bring about a host of problems, due to the fact that even if all the members share an interest in organic growing and wholesome food, they may have conflicting interests and approaches. For instance, the issues that farmers are concerned with are not necessarily the same as the issues that consumers are concerned with. Farmers may want to keep their production costs as low as possible and their returns as high as possible, while the consumers want the best food possible at the lowest possible price.

"Like trying to keep an ecosystem alive, it's diverse and it's complicated. If it was just growers, you'd have enough on our own. But, we have scientists, we have consumers, we have gardeners, and larger growers, and then we have people who are interested in growing organically just because they want to make a buck, not because they really believe in it." (Joice Rennie, discussing the all-encompassing nature of NSOGA)

Furthermore, the organization is supposedly province-wide, but its activities are mostly concentrated in the Annapolis Valley and Halifax areas. The Annapolis Valley is where the largest concentration of organic growers is situated, and Halifax is where the largest concentration of consumers of organic food is located, so it is natural that this is where the organization would be more visible. The obvious drawback to this is that the growers and members in other parts of the province feel left out, or have to travel long distances to attend NSOGA activities. Some of the organic growers on the South Shore were only vaguely aware of the existence of a provincial organic association. They have started their own informal local group of organic farmers, in a similar way to the organic growers on the North Shore.

"The province is just too big, and it's too hard to run an organization that represents the entire province. It's hard to run meetings if you have to drive 2 hours to get to a meeting. I mean, the organization has been very Annapolis Valley based, which is fine, 'cause that's where a lot of the production is, but it just makes it difficult to reach people in the more remote areas."
(Paul Muto, a grower in Colchester county)

To address this isolation problem, an option would be to make the NSOGA a province-wide umbrella association, with a host of local chapters in the main growing areas: North Shore, South Shore, Cape Breton, Annapolis Valley, while keeping a provincial board of directors and certification committee. This opening-up of the organization might also address such issues as loss of membership and lack of volunteers. The number of members may be currently declining because the members outside of the core areas do not feel that being part of the association is beneficial to them. The meetings and the workshops are held in other regions, and they are not always kept up to date on the activities of the organization. Many members also complain about the shift of focus in the organization, arguing that this will cause NSOGA to lose its grassroots origins:

"I hope NSOGA will survive (in the future). It survived quite a bit for a long time. Unfortunately, what's happened with it is that it's treading water, and it's been treading water for a long time. A few years ago, there were about 100 members, and now there are about 100 members, but half or more of the membership of just a couple of years ago, are not the same ones. So, instead of growing, you're losing people that decided that they're not happy with what's going on, and they're going off and they're doing their own thing, and new people come in. I don't see that as very productive. There's a lot of people that started in the organization that aren't in it anymore. (...) I think a lot of them don't see it as a grassroots organization anymore, and they have real problems with that."
(Joice Rennie)

The organization is also dependent on volunteers to keep it alive and dynamic. As with many other organizations, there are generally a handful of members who are very

committed to the organization and who push it forward, while the other members lose interest or do not get involved at all:

"It's difficult because they're trying to have the organization work with volunteers, but you have to be involved. Everybody's supposed to be involved in some capacity or another. That does not happen, you know; there's a few people who carry it."
(Joy Elliot)

In NSOGA, this might be partly due to the Annapolis Valley/Halifax focus mentioned above. Organic growers in Cape Breton will not be very interested in putting in a lot of time and effort in the organization if they have to travel 6 hours to get to the meetings and to the other activities. In addition to establishing local chapters, which are already formed in an informal manner, other ways to alleviate the isolation might be to hold some activities in other regions, as well as to disseminate information and hold meeting through advanced forms of communication (even if some farmers are very reticent to use the Internet).

5.1.2 Canadian Organic Growers Association (COG)

Many of the organic farmers that I interviewed did not directly discuss the Canadian Organic Growers Association, except to mention that it is a good source of information for organic materials and techniques, as well as having a very practical and useful mail resource library. Many of the organic growers in Nova Scotia, however, are members of COG, since they participate in some of its activities and read its publications. COG was founded in 1975, and describes itself as "a national information network for organic farmers, gardeners and consumers" (COG brochure). It would be useful to examine whether this organization

has similar problems to those of NSOGA because of its all-encompassing nature, although this topic was outside the scope of this thesis.

COG is a national organization with twelve local chapters across Canada, eight in Ontario and four in British Columbia, with a membership of approximately 1650 (Baltaz 1998, p. 68). COG organizes many workshops, farm tours, and conferences, such as the Guelph Organic Agriculture Conference and Trade Show, the largest yearly event for organic growing in Canada (organized in conjunction with many other agencies). They also publish a number of books, information booklets, as well as a quarterly publication called *Eco Farm & Garden.* This is a new publication that came out of a merger between *Cognition* (the previous COG publication) and *Sustainable Farming* (the previous publication of Resource Efficient Agricultural Production). This publication presents a variety of articles of interest to organic growers, consumers, environmental activists, and anyone interested in good food.

COG has a wide mandate to accommodate the variety of members. It aims "to be a leading organic information and networking resource for Canada, promoting the methods and techniques of organic growing along with the associated environmental, health and social benefits" (COG brochure). It is also registered as a federally incorporated charity.

5.2 Working together

"(We need) cooperation and communication between the growers. (...) Just getting together and not fighting. It's like a family... in the positive and negative senses (laugh)."
(Janet Wallace)

In many groups and associations, some recurring problems are divergence of opinion and personality conflicts. This is also apparent among organic growers in Nova Scotia, and possibly doubly so because of the farmers' independent natures and strong personalities:

"(Organic farmers) need to work out a means of communication and support and help each other out to work together, because farmers, if you've ever been to any type of farm get-together... They don't work well together. They're independent. Their schedules are different. The way they do things is different, and they all want their own way. It just tears up. They have to have the same goals. Getting in tune and working together."
(Heather Campbell-Gilbert)

As seen in the final chapter, many organic farmers believe that to be able to work together as farmers with similar goals is needed for organic agriculture to develop in a healthy manner, and to get the recognition it deserves. This is often difficult, because of petty conflicts and not taking the time to understand each other, even if many farmers basically share the same goals and beliefs:

"People are always people, whether they're organic or not. You can be as organic as you want, and still not get along with the next guy. Organic people have very strong opinions. You really need a strong philosophy in order to do a lot of things, but I find that with opinionated groups of people, there's sometimes that those strengths of opinion pull people away from each other, that really have a lot in common."
(Joice Rennie)

Also, because organic farmers have to struggle to be recognized, to make a living and to learn how to farm in this manner, they often get caught up in their own problems, and their own situations. It was interesting to hear four or five farmers say that they were the

only ones who were making a living from organic farming in Nova Scotia, when in reality there are at least 10 farmers who are living off their farms. Their perceptions of each other are a little skewed, which builds up artificial barriers that hinder the communication process.

"Everybody's so busy. As organic as we are, we still are caught up in being busy with a lot of things. (...) So, instead of talking things through to a point where you understand each other, there's often conflicts."
(Joice Rennie)

At the same time, these conflicts often spark some discussion. It may be hard to reach a consensus or a decision, but the organization (NSOGA) is never left stagnant. There are old members leaving because of discontent or other reasons, and there are always new members joining the ranks. The focus seems to be constantly changing, the certification process is always being refined, the executive is mobile, and the whole atmosphere is generally dynamic. It might not be the most efficient way of doing things because of the need to deal with personality conflicts and petty fights, yet it does get things done, it gets issues raised, it stimulates discussion, and it leaves no one indifferent.

5.3 Certification and organic standards

5.3.1 What does certification mean?

"I think the certification process is a worthwhile endeavor. (...) So that a customer that buys at Sobeys can go to the manager and say: "Where was this grown? What field? What was on it?"
(Sian Newman-Smith)

The idea of organic certification became increasingly important in the late 1970s as the market for organic food grew, and the term "organic" was being used more and more (MacRae *et al.* 1989a, p. 12). There was a need for certain standards or guarantees that the

products bought by consumers as "organic" were actually grown or processed according to strict growing standards. This led to the establishment of various independent, non-governmental, farm verification and certification organizations in Canada (Johnston 1994, p. 6). The farms that wished to be certified organic had to be inspected annually by a third party to ensure that certain criteria were met, for example that no agricultural chemicals had been used in the growing process in the previous three years (Johnston 1994, p. 6). Only then could their products be marketed and labeled as certified organic. The products also had to be accompanied by a paper audit trail that traces the food back to the producer, and to the methods that were used to grow (and process, if applicable) this food (Macrae *et al.* 1989a, p. 12).

Today, the certification procedure is still very similar, and the certification associations perform similar functions, but they have also expanded their mandates to provide support for farmers undergoing the transition to organic agriculture, and to provide the latest information on farming practices. There are now over 40 of these certifying agencies in Canada, with two provincial standards bodies, in Québec and in British Columbia, and with the possibility of a national organic standard in the near future (Canadian Organic Advisory Board 1997). The certification agencies have varied standards, but they all largely adhere to the following principle: "the farming techniques used should be sustainable and soil-building and that no synthetically-produced, fast-release fertilizers or pesticides have been used for at least three years" (Canadian Organic Growers 1997). Their purpose is to assure the environmental sustainability of organic operations with regular

inspections of the farms. They also play a social role by providing educational material and workshops for farmers wanting to become organic growers, or for organic growers wanting to improve their skills and knowledge (Johnston 1994, p. 6).

5.3.2 Is it important and necessary?

"A lot of the conversation about organic farming in the media centers around certification. That is the issue. (...) They're saying certification is important, it's an issue. The same way the deficit is an issue. Many people don't even know what a deficit is, or why it's important, but by God, they know the deficit is an issue."
(Rick Gilbert)

Many farmers mentioned the fact that organic certification was becoming more and more important to the general public, due to the emphasis on certification in the media. The main argument that is conveyed in the media is: how can you tell you are buying 'real' organic products if they are not certified "organic"? This is a valid argument since many consumers do not have direct contact with the farmers, and buying certified organic food is one way that they can protect themselves against 'fraud'. Many farmers, however, believe that the consumers should not put their entire trust on simply a sticker that proclaims the food is certified organic. Consumers should also do their research on the standards adopted by each certification agency, and then decide which set of standards they agree with. Ideally, though, the consumers should be buying their organic food as locally as possible, and with as much farmer-consumer interaction as possible. This way, the consumers can talk to the farmers about their growing methods, and then choose to buy the products or not. In these cases, the 'sticker' has much less relevance:

"We're not certified. We don't bother to do that. We just go by people knowing, trusting what we're doing. (...) I have the standards, and we follow the standards. I do go by what they are, but we just don't bother to be certified. (...) I know that what I'm doing is right."
(Kerry Wentzell)

"Right now, it isn't (necessary). We have not one of our customers that would be any happier eating our food (if it was certified)."
(Michael Wolter)

In addition to the media's fixation on certification, there is also pressure from the larger certified growers to have all the organic growers, even the very small operations, certified. Their argument is that all the growers should be on a level playing field: *"We have to be all singing from the same sheet of music to start off with."* (Paul Colville). They do not think it is fair for growers who are not certified, and who have not filled out the paperwork, been inspected and paid fees to the certification body, to be able to sell their products as "organic" (not "certified organic", just "organic"). This pressure from the larger growers reinforces the media's message vis-à-vis certification, and make consumers even more dependent on the certification stamp of approval:

"And, when the farmer who is certified has an interview, he makes sure it's written in the articles: 'Don't buy it unless it is certified, because you don't know what you're buying'. So, that closes the door right up tight and nails it shut. For a customer who reads that, who doesn't know anything about it, he isn't even going to consider it unless he sees that sticker because he's been told that it's not safe to eat."
(Heather Campbell-Gilbert, a grower who is not certified)

For the large growers, however, certification is often necessary for marketing purposes. For instance, supermarkets will only sell produce as "organic" if it is certified organic. These growers are also dealing with much larger volumes of food, and they are often selling to consumers indirectly, so that certification does serve its purpose:

"I think it's important in the way that we like to give the sort of sense of security, or we sell a sense of security along with our product. That we can assure people that our practices have been approved through a certain certification system."
(Norbert Kungl)

"When we say that we're certified by OCIA or NSOGA, that's a standard that everybody is sharing, and they can then rely on that. You can either reject or accept that standard, but (the customers) have some reassurance that we didn't just cobble up something."
(Paul Colville)

Another debated issue surrounding certification is whether this type of process is really in accordance with organic farming:

"If (the organic movement) feels that the fundamental problem with our society is the dominance of the market culture, then by entering into this whole realm of certification, we're not changing anything fundamentally from the market paradigm."
(Jim Drescher)

"Even our small, grassroots, supposedly farmer-run organization, didn't want anything to do with non-certification. They couldn't deal with it, and they couldn't deal with the fact that we had to have two things happening: we have to be pursuing certification for these needs, but we also have to be pushing for grassroots alternatives and stuff."
(Summer Fike)

The certification process is basically a standardizing process that permits organic growers to sell their products on the conventional market. It does have many advantages, particularly from the point of view of the consumers who use it as a substitute for personal trust with the farmers, but in many ways it is in opposition to the basic principles of organic farming. It is not necessarily flexible as it does not directly take into account every farm's particular environment and make-up. It also does not consider the economic situation, or the social aspects of each organic farm. Each certification agency is presently independent, but they are still homogenizing bodies. And, as seen in the following sections, with national certification standards, the process will become much more centralized. Finally,

certification does not necessarily favor diversity and innovation in terms of products, practices, and schedules, but rather a certain kind of uniformity. The following farmer, who is currently certified, seems to adequately sum it up by saying:

"So, I see certification as being important, but I also see that limits should be put on it. It's a tool."
(Craig Medicraft)

5.3.3 Advantages of certification

According to the questionnaire results, 14 growers were certified (34%) and 27 were not (66%), in 1998. The main advantages of certification mentioned by both groups were:

1- consumer confidence
2- credibility, reputation
3- marketing ability
4- source of information
5- farmer reassurance

As mentioned in the previous section, a certified organic product in the marketplace assures the customer that this product was grown (and processed, in some cases) according to a certain set of standards, which then defines this product as "organic". Customers are thus willing to pay a premium price for this product, to buy this product over a conventional product, or to go out of their way to find this product. In this regard, certification is particularly important to people suffering from environmental sensitivities and who need to be 100% certain that the products they are buying are organic, and free of artificial chemicals:

"I see a lot of people with environmental sensitivities, and if they can't trust certified organic as something that they can eat, then there's a problem."
(Joy Elliot)

According to many respondents, certification also adds a level of credibility, or heightens the reputation of their operation. It can help to demonstrate that they are running a 'real' organic farm, and not just doing this 'for fun'. It can also vouch for their degree of seriousness in terms of organic methods and lifestyle, in other words, these farmers have chosen to be organic farmers instead of conventional farmers, and they have chosen to support the organic movement by being certified:

"It helps in promoting our industry, and defining our production methods from non-organic production methods."
(Norbert Kungl)

"I think that certification gives us a level of credibility in the mind of the consuming public. (...) If you're certified, you obviously must know what you're doing."
(Jann Chute)

The third most important advantage of certification expressed by the questionnaire respondents was improved marketability for the products. If the products are certified organic, they can be sold much more easily to supermarket chains and other retailers. In addition, farmers who want to sell their surplus to other farmers, wholesalers, or processors, benefit from being certified:

"We grow more herbs than we use. If we were certified, then (...) we could sell them to a wholesaler who needs certified organic herbs."
(Jennifer Scott)

The fourth and fifth advantages do not relate to the market or to the consumer aspect of organic farming, but rather to the personal benefits of certification. The certification process can be a great source of information, since a qualified and knowledgeable inspector comes to the farm at least once a year, offering feedback and advice. There are also

certification committee meetings where the standards can be discussed, and the farmers can share their particular situation with each other:

"It helps to keep everybody talking, I think. So, without certification, it's really easy to be really busy and not get out and talk to other people and see what other people are doing. (..) I think it's a good process."
(Joy Elliot)

Becoming certified can also give farmers the reassurance that they are doing things right, that they are doing what needs to be done to be considered "organic". It encourages farmers to keep good records, and to be more conscientious in every aspect of their operation. Certification can also give farmers an extra boost to expand their operation and their markets, now that they know that their way of doing things is 'acceptable':

"When we filed our first certification application, what I was looking from the certification committee was reassurance that I was following the rules, that I was doing it right, that I wasn't making some grievous error that I didn't know about yet. I felt that by going through the processes of being certified, answering all the questions that are on that form, it makes you stop and think about what you're doing and how you're doing it, much more carefully than if you were just doing it, and not answering to anybody."
(Jann Chute)

These advantages to certification can now be countered by a number of disadvantages to certification.

5.3.4 Disadvantages of certification

"I believe it's a load of hogwash, utter complete."
(Robert Rhodes)

This quote illustrates how some farmers are completely opposed to certification. In the questionnaires, the main disadvantages of certification expressed by the respondents

were fairly straightforward and void of emotion:

1. cost
2. paperwork
3. bureaucracy
4. time
5. too much effort, not worth it

During the interviews, however, the main disadvantage that was mentioned is the fact that it does nothing to educate the consumer about organic farming. As mentioned previously, the consumers simply have to look for the certified organic sticker to be assured that this food is organic. The drawback is that the sticker does not tell them anything about the certification process, the set of standards that were applied, the particular farm operation the product came from, how it was grown, and so on. It can also make the farmer less responsible in terms of educating his/her customers:

"Well, it's a way to keep the customer ignorant. If they just look at the sticker and it says 'certified organic', they buy it. People don't have to think and the farmer does not have to educate. He just has to sell. He just has to get that sticker and the name says it all."
(Heather Campbell-Gilbert)

Another limitation of the certification process is that it does not seem 'foolproof'. Some farmers alluded to the fact that 'cheating' could go unnoticed:

"But, I have doubts about the whole process. It seems pretty easy... I don't want to say 'cheat', but, you know, to not follow the rules exactly... I think it's pretty hard for an inspector to really see those things. (...) I wish there was more buyer and farm direct contact, and then, we wouldn't need as much certification."
(Julia Cooper, who is uncertified)

In addition, the larger growers seem to have more clout in the certification process than the smaller growers, so that they can get away with much more. Since the number of organic growers in the province is so small, and the number of these that are certified is even

smaller, the more 'prominent' growers can almost be assured of being certified, year after year, with much fewer questions asked. Their position as certified growers is important in the promotion of the organic movement, and in the availability of organic food in the province:

"It's very difficult to not get certified if you're a large grower"
(an organic grower who did not want to be associated with this quote)

To summarize, organic certification is a *"tool"*, and it helps to distinguish, for the farmers and the general public, what is organic and what is not organic. It has many advantages and disadvantages, and still has to be refined, but as one farmer put it: *"it's the best we can do at this point in time."* (Norbert Kungl)

In light of these advantages and disadvantages, let us now examine current organic standards, the issues surrounding them, and the possibility of having national organic standards.

5.3.5 Organic standards

The sets of standards that are used by most organic certification agencies in North America are based on guidelines set out by the International Federation of Organic Agriculture (IFOAM), or the Organic Foods Production Association of North America (OFPANA). (MacRae *et al.* 1989, p. 13). These guidelines are seen as minimum requirements to be considered "organic", and they can be adapted and changed according to each certifying body's needs and beliefs.

Some organic farmers expressed how difficult the exercise of writing down standards can be, and how it fundamentally conflicts with nature, and with organic farming in general:

"I really deep down think it's pretty hard to write it. Once you start to write it down... I just have a problem with the standards (laugh). Just trying to write things down on paper about an ecological farm (...) It's really hard to do that."
(Julia Cooper)

"Part of the whole idea of standards is produced by a mindset that got us where we are today, where we want everything uniform and by the rules. And when we start working with nature, nature doesn't work that way. Every place is unique. Every situation is so complex that you can't put rules that are going to apply for a large area."
(Paul Muto)

That brings us to the question of whether it is feasible to have national standards for organic agriculture.

5.3.6 National organic standards... yes or no?

"There's a lot of scary stuff potentially happening with this COAB."
(Joy Elliot)

The regional certification process is already seen as problematic by some, as the standards are often arbitrary, the farmer-consumer link is weakened, and becoming certified takes much time, money, and effort. Now, a new certification process is proposed both for Canada and the United States (separately), whereby a farm would have to adhere to a set of national standards in order to have its products certified organic, and in order to use the word "organic" when selling its products. In Canada, the discussion on organic standards began in the mid 1980s with the implementation of the Canadian Organic Unity Project (COUP), in conjunction with the Canadian Agricultural Research Council and Agriculture and Agri-Food Canada (EAP 1997). Then, in 1993, the issue was pushed forward when the Canadian Organic Advisory Board (COAB) was established, replacing COUP. This non-profit organization "acts as a national representative for the various organic stakeholders", with

the aim to draw up national organic standards (EAP 1997). The next step was the addition of the Canadian General Standards Board (CGSB) in 1997, in order to draw up standards in a professional manner.

Many of the same advantages and disadvantages that were mentioned for organic certification were repeated in relation to the implementation of national standards. Many farmers, however, took the previous ideas a little further by discussing the particular impacts that national organic standards could have on organic growing in Nova Scotia, and in the Maritimes, generally. The first issue is the wide diversity that exists on organic farms across Canada. From the commercial market gardens in British Columbia, to the large wheat farms in the Prairies, to the huge mixed farms in Ontario and Québec, to the small organic farms and gardens in more marginal areas like the Maritimes, it is clear that the interests and goals are different across the country. In the Maritimes, interprovincial trading and international exporting are not a prime concern, while in more prominent agricultural areas, such as Ontario, they are. Many growers in Nova Scotia see the national standards process as a way for big conventional farms to convert to organic agriculture, in order to 'cash in' on the organic trend. On these farms, a conventional system, which is characterized by monocultures, large volumes of food, and conventional distribution, will be favored for the production of organic food. Having these important players with much clout and capital, will put pressure on the process to have the standards as lax as possible, so as not to complicate production:

"The governments are getting involved so that they can get control of the standards. I think we're aiming like they just did in the United States to dilute those standards, so the big players can come in, and make it real easy for them to break into the organic (market)."
(Alex DeNicola)

For these reasons, many of the organic farmers in Nova Scotia want to retain some (or all) control over the certification process. They are worried that the standards will be diluted so much as to not mean anything, or to not be "organic" anymore, and they think that the price of national organic certification will be too steep for many Maritime organic farmers:

"If they do (implement) national standards, I really think we should still be allowed to have local certifying bodies who have control within the provinces, and apply national standards to interprovincial and maybe out of the country exports."
(Janet Wallace)

"The Maritimes are, for sure, saying that it should be provincially regulated first, then federally second, because we're all different ecosystems with different needs. (...) So, it wouldn't be in our best interest to have a federal rule governing what we want, what we need, taking care of our needs, without necessarily understanding (our situation). (...) The cost is an issue and also the dilutement of the standards because of the major players in it."
(Heather Campbell-Gilbert)

In addition, NSOGA's position is to allow the smaller farmers to remain non-certified, while still being considered organic. This position is justified by the large number of organic growers in the province whose operations are too small to warrant the costs and the effort of certification, or who sell locally to customers who know them. This point of view met with much uproar from those at the national table, who did not see a need for this, according to Craig Medicraft, the representative for Nova Scotia:

"I got voted out at the board meeting this year. They all wanted national standards for organic, where if you wanted to use the word organic, no matter what size you were, you had to be certified. And, my position, I mean NSOGA's position, was that no, non-certified

should be ok for small growers. But, like I said before, out west you get huge farms of 200 acres of grain. (...) they don't see a need for it, whereas down here, we see a totally different scale and we see a need to protect the little ones, like me, small farmers."
(Craig Medicraft)

Again, it can be argued that national standards are beneficial for the development of organic farming, to boost its profile, and to encourage international trade. However, there are also some disadvantages to this process, and these seem to be magnified in the Maritime Provinces. Many of the organic farmers acknowledge the advantages of having a standardized process for everyone, but they are scared that the process will be governed by the core agricultural areas, and by people who are not necessarily committed to the fundamental organic principles and lifestyle:

"I think everything should become more of a local level thing. I think anything beyond the bioregion is ridiculously big. It loses its meaning."
(Jim Drescher)

The issue is still up in the air in Canada, as well as in the United States. Many people from farmers to consumers to retailers to government officials are involved in the process and are trying to get their voice heard. Many different points of view are being discussed, and the final verdict is still unsure.

5.4 Government support

5.4.1 Is there support for organic farming?

"Well, I haven't run into any! (Laugh)"
(Summer Fike, discussing government support)

The opinions of the farmers also diverge on the issue of government support. Many respondents, however, denounced the lack of recognition, research, and support from

governments. In addition, the government body that would most likely be supportive and appropriate for promoting organic farming, the Nova Scotia Department of Agriculture and Marketing (NSDAM), is the least visible in this regard:

"I don't really see any support coming from the Nova Scotia Department of Agriculture. I think... they're not interested in organic, or if they are, the interest is economically motivated rather than motivated from a sense of stewardship for the land. (...) The (Nova Scotia) Department of Environment, Environment Canada and Agriculture Canada, and the Gulf of Maine Council on the Environment, all of those bodies have supported our work in terms of developing expertise on organic growing. (...) We've put in proposals (to NSDAM) to support organic field trials and work, here in Nova Scotia, every year, and every year, we get rejected."
(Jennifer Scott)

Some of the farmers acknowledge that there is some support coming from NSDAM, but that this support is not necessarily suited to organic agriculture. For instance, organic farming seems to 'work better' on a small scale with an emphasis on the local aspect of producing and selling. Yet, NSDAM seems to concentrate on the export opportunities linked to organic farming, without taking into account the environmental and social aspects of this type of growing and distribution:

"I think (the government is) more concerned about what products they can sell someplace else to make money as opposed to having their own people feed and take care of their environment successfully, because being more interested in export doesn't necessarily follow the sustainable and the environmental issues. I'd say they're interested in promoting it, but maybe not in the right way or for the right reasons."
(Joice Rennie)

The explanation that is offered by many respondents to explain this lack of support is the 'small' issue. According to Neil Van Nostrand, *"small is not beautiful"* (Neil Van Nostrand). This refers to the general size of the farms compared to conventional farms, as well as the relatively low number of organic farms in the province:

"(The government is) not going to push organic because 99% of the farmers are conventional and they can't very well come out and say: 'Eat organic because it's better for you or something like that.' (...) There's no conspiracy or anything. It's just so small, it's not an issue."
(Craig Medicraft)

Many farmers also mentioned that as funding for farming is decreasing, corporate interests in agriculture are becoming more prominent, and governments are concentrating their financial support on large-scale, commercial operations. There is no government support specifically aimed at organic farming. Organic farms can, however, apply for any of the government funding or programs that are available for conventional farms, on an equal footing to conventional farms:

"There is support for agriculture in general, and in my experience, there is no bias against organic farms when it comes to applying for any of the farm assistance programs, be it for capital expenditures or any of the different programs. (...) Other than that, I don't think there are any programs specifically designed to support organic agriculture."
(Norbert Kungl)

Many of these programs favor large-scale operations, and organic farms are often at a disadvantage because of the scale of their operation:

"Well, what there is, is the conventional type of support, that you can get whether you're organic or not. You can get a grant to pay for half your building costs, help you build a storage area. (...) And the money is drying up anyway in Nova Scotia for farmers. There's still grants, but it's the bigger you are, the more money you spend, the more grant money you get. So that puts organic producers... that makes it really hard for them."
(Alex DeNicola, responding to what type of government support there is)

It can be argued that this disadvantage is also present in other small operations, such as small conventional mixed farms. The organic aspect might not be of great importance in the lack of government support, compared to the scale of the operations. Another issue that arises is whether government support is desirable for organic farmers. There are

advantages and disadvantages to having government support, for organic farmers, as seen in the next section.

5.4.2 Should there be government support for organic farming?

"I don't think the organic farmers or anybody else should be relying on governments, expecting governments to do anything for them."
(Jim Drescher)

Many farmers are disillusioned with government programs and assistance in agriculture, so they believe that organic agriculture would be better off without government support. With increased government intervention, organic farmers might lose some of their valued independence because of more regulations, paperwork, and loss of management control. It is a difficult issue because many organic farmers started out farming this way to get away from bureaucratic control and the regulatory society. As seen in the next chapter, deciding to be an organic farmer is also choosing to be on the fringe of mainstream society, because it is not yet a widely accepted activity by the general public, the agricultural community, or the governments. And, since governments seem to be focused on agricultural exports, corporate interests, and large-scale, successful monocultures, many farmers do not believe that governments can also offer them appropriate support. It would be a conflict of interest between commercial profitability and long-term sustainability:

"We're going to make (our farm) more organic if we can, but we're pessimistic with the government getting involved. Why the hell don't they stay where they belong and leave farming to the farmers?"
(Danny Bruce)

Other farmers believe that governments could play a crucial role in the development of organic agriculture in the province. They denounce the type of support that is currently

offered in the form of government loans and programs geared towards large-scale, conventional operations. Rather, they favor government intervention that understands the roots of organic agriculture, its principles, its practices, and its farmers. One very important aspect of this ideal government support is to encourage the existence of small scale farms, whether conventional or organic, and realize that small scale organic operations can be successful:

"If there is a role for government, it would be to encourage the development of small scale, because that's where organic works best. (...) One of the reasons I want to be economically successful is so that I can sell this gospel. I can talk to government, and I can say to government: Listen, what are you talking about? We had sales of almost a quarter of a million dollars last year; we had 7 people employed; we paid taxes; I don't owe you anything; I've never taken any grants from you and I don't owe the banks. So what do you mean that small scale doesn't work?"
(Paul Colville).

Governments could offer support in many other different ways. There is a need for publications that are directly related to organic growing in Canada, for example, a listing of the varieties that are best suited for organic growing in different parts of the country. They could also fund research, or carry out off-farm and on-farm research on organic agriculture:

"There's very little research. (...) So there's a long way to go. The government could do a much better job."
(Alex DeNicola)

They could also offer outreach programs, as well as providing extension agents for organic farmers in all areas of the province. There is a definite need for 'specialists' in organic agriculture that could offer advice to farmers, and offer solutions to farmers' specific problems, by going directly to the farms. This way, farmers who are not certified could

benefit from this expertise in the same manner that certified growers benefit from knowledgeable inspectors:

"They could help you a lot. (...) Having someone going out and doing outreach would be wonderful..."
(Michael Wolter)

Another crucial need for organic farmers in Nova Scotia is the infrastructure. This includes storage facilities, transportation infrastructure, processing facilities, that would permit farmers to grow and distribute larger volumes of food. It might also encourage conventional growers to undergo the transition to organic agriculture. However, as mentioned by Paul Colville, this infrastructure should not be implemented by way of traditional grants to individual farmers. This would not be sensible because of the small scale of each farm, and the competition that this process induces. Instead, the facilities should be set up regionally as co-operatives, or managed by an external company, and offering equal access to all the farmers in the area:

"If we were going to get government support, what I'd like to see is infrastructure support. Don't give (me) the money to put in a great freezer facility on my farm. Don't do that. Build a freezer facility downtown, and let all the farmers use it. (...) But, don't give it to individual farms, because that means that you got the grant and I didn't. So that's competitive. That's not fair. If you gave it to the trucking company for example, the storage facility or whatever, then you have access to it, and so do I. So that the big don't keep getting bigger, the small can get a piece of the action too."
(Paul Colville)

Finally, organic farmers are simply asking from governments to be considered legitimate farmers. Governments seem to think that there is only one way to run a farm operation, and to make a living on a farm, which is conventionally. Organic farmers would

like their type of farming to be viewed and promoted by governments as a viable option to conventional farming:

"I would just like to be on equal footing with some of the other farmers, and equal recognition. I mean, I'm a bona fide farmer. (...) I'd like to see organic given a little more recognition as a viable and a legitimate alternative for the government and for the agricultural community as a whole."
(Craig Medicraft)

This discussion illustrates that there is definitely a role for government bodies in organic farming, but that this role should differ from the support given to conventional agriculture, as this type of support is often not suitable for organic operations. In Nova Scotia, the NSDAM has attempted to respond to the need for government presence in organic growing by creating a new position, an organic specialist. In the next section, this type of government support is evaluated.

5.4.3 "The organic specialist"

"They (NSDAM) realized also that there's enough calls that they need to have somebody besides refering them to the organic associations. So, there's a fellow they hired whose job it is... he's the organic guy, specialist. (...) His heart is in the right place, but he really doesn't get involved enough actually. (...) I think there's a sense that he was just thrown in there like a bone to a dog, you might say, to cover the gap."
(Neil Van Nostrand)

Most farmers applaud the appointment of an organic specialist at NSDAM because it means that organic farming is valued enough to have an entire position devoted to it. It means that there is somebody in government to look after their interests, and to help farmers with problems at the farm level. The reality is a little different. The individual does not seem to have the knowledge-base to be considered an organic 'specialist'. He can convey

and distribute information, but often cannot answer farmers' questions because he does not have the experience and the knowledge:

"He's trying, but he knows that he's lacking, because he must be getting people asking questions that are just stumping him."
(Heather Campbell-Gilbert)

In addition, his position is based out of an office in Kentville. He does not act as an extension agent, going out to farms and helping farmers with specific problems. Instead, farmers have to call him, or go and meet with him, if they have questions or problems. This acts as another factor reinforcing the concentration of 'organic' activities in the Annapolis Valley. Many respondents outside of the Annapolis Valley were unaware that NSDAM had made this appointment. Because of these reasons, this organic specialist is considered by other organic farmers as a 'token' effort, so that NSDAM can say that they are addressing the issue of 'organics':

"A few years ago, the Department of agriculture (of Nova Scotia) hired an organic specialist, but he doesn't have a travel budget, so basically, he's a paper-pusher. If I have a question, I can call him. (...) But, my guess is that most of the farmers know more than he does about (soil fertility). (...) He's not out there like the extension (workers)."
(Alex DeNicola)

Other farmers believe this appointment is a first step in increased government recognition and support. They are impressed that the specialist is involved with NSOGA by attending meetings and being on the Board of Directors. This signifies that he is aware of the issues in organic farming, and of the positions of NSOGA regarding those issues, so that he can keep NSDAM and the Minister informed:

"Actually, there's even an organic specialist now from the Department of Agriculture, and he's now on the Board of Directors for NSOGA. So that's a big step. He's right there, aware of the grassroots things that NSOGA is concerned about, and he reports to the Minister, so that's very good for us, I think."
(Joy Elliot)

The existence of an organic specialist at a provincial level cannot be considered to be more than a first step. If NSDAM is to offer the organic movement and organic farmers adequate support, it has to be comprehensive. Having an organic specialist needs to be accompanied by on-farm and off-farm research, the availability of up-to-date and relevant information, financial support, recognition and promotion of organic growing, educating the staff at NSDAM, as well as the general public, and the implemention of an agricultural policy that includes organic agriculture as an acceptable alternative to conventional agriculture. There is still a long way to go before achieving this comprehensive support, and this support may not even be desirable, according to certain respondents, since 'organics' are doing just fine without the help of the government.

The next chapter, the conclusion, looks at what barriers exist for organic farmers wanting to start out or to develop, as well as what the needs are for organic agriculture to continue growing in a sound manner. The lack of government support might not be the most important barrier faced by organic growing, and government support might not be exactly what is needed for the organic movement to develop. The direction organic agriculture seems to be moving in, and where this will lead in the future, is also discussed.

Chapter 6: Where do we go from here?

Throughout my research and in writing this thesis, I have come to realize that what used to be a 'fringe' movement, the organic movement, is now rapidly gaining ground, and moving into the mainstream. This shift brings about a whole new set of issues for organic growers and for supporters of the movement. There is now much questioning as to whether 'organics' should follow the industrial route or whether it should stick with its roots. Also, it seems to be still unclear whether government support, and/or widespread public support, is desirable. Everything related to 'organic' is evolving at a very rapid rate, and the future is still unsure. In this section, the barriers to this evolution, as well as the needs for a healthy evolution, are examined to offer ideas for the future.

6.1 "Swimming upstream"

"I've always been on the fringe. I've always been on the alternative edge, and that's where the frustration comes."
(Sian Newman-Smith)

Even though the organic industry is growing rapidly, and consumer awareness is increasing, farmers still perceive themselves as being outside of mainstream society. This may be due to the fact that farming as a whole has become a very peripheral activity in Canada. Organic farming is only a small portion of this marginal activity, and growers in the Maritimes are isolated from the main organic growing areas of Québec, Ontario, and British Columbia. Organic farmers are also struggling with how they are perceived by the general public, and by the rest of the farming community. It takes a lot of effort for them

to constantly explain their actions and to justify their choices, which often leaves them with a feeling of not being understood:

"What are the psychological ramifications of setting yourself up to swim upstream, which is what we're doing. We're swimming upstream. We're in a culture where there's no... people think I'm crazy because I work with a horse. They think I'm crazy because we're often doing things by hand, and they think I'm crazy because we don't buy fertilizer. And the whole system is like you spend half your time trying to explain to people what you're doing. Whereas if I had a tractor, and starting spreading chemicals around, everyone would understand immediately what I was doing."
(Alex DeNicola)

Why are organic farmers still *"swimming upstream"* if organic agriculture has now entered the mainstream? It seems that the ramifications of entering the mainstream culture have not yet made their way to the farm level. Organic food has received media, government, and consumer attention, but the farmers are still behind the scenes, and have largely been left out of the limelight. Organic farmers still view themselves as part of an alternative counterculture, which has to struggle to be heard and recognized, because they still have not received validation for what they are doing. The food they produce has been validated and is now valued, but their role is still undervalued. Jennifer Scott offers the following explanation:

"People think that farming is really simple. It's not simple, though. (...) My Mom wanted me to be a doctor, she did, and my response was that I wanted to do something more challenging and become a farmer (laugh)."
(Jennifer Scott)

As mentioned in Chapter 3, many farmers are growing organically because of their strong commitment to the environment, and to the organic lifestyle. It does, however, extend beyond that. Many respondents mentioned how you had to be *"crazy"*, *"bent"*, *"twisted"*, or *"wired differently"*, to get into organic farming:

"You have to be a little bit twisted to do something that a lot of the commercial part of the world doesn't approve of (laugh)."
(David Chute)

Does this mean that there are personality traits associated with organic farming? It would seem that having a strong sense of self and a deep conviction that what they are doing is 'right', would be needed for farmers to thrive in this milieu, and to be able to swim against the current.

Many farmers seem to share these characteristics, but the situation is made more complex by farmers being very *"unique"* individuals, with different values, beliefs, and ways of doing things, and they are self-described as *"individualistic"*. They seem to present the perfect example of being independent and yet attentive to the needs of the natural environment, the rural community, and the consumers of their food. Nevertheless, organic farmers strongly value their independence and their individualism, and this may, in turn, impede the development of a strong, cohesive organic movement. The absence of a united group can then lead to problems with securing government support, and widespread public validation. This struggle for validation is continuous, and it often ends in frustration, for many farmers. In the next section, the lack of recognition and the other barriers faced by organic farmers are explored.

6.2 Barriers to organic growing

The six main barriers to organic growing are:

1- difficult access to information
2- psychological barrier
3- lack of knowledge and skills
4- time and patience
5- lack of recognition
6- economic barriers (see Chapter 4)

Even with supportive social and organizational structures (organic associations, farmers' groups, rural networks), and an increasing demand for organic food, farmers still face many barriers when choosing to grow organically. The first barrier is the difficulty of accessing information related to organic growing:

"There's information out there, but there's not enough. It's learn as you go. Fall on your face, get up, and do it again."
(Craig Medicraft)

Organic farms are generally diversified, so the need for information is greater than with a conventional farm. In a conventional monoculture, only one crop is grown, usually the same, year after year, and chemicals are used to control fertility, pests, and disease. In an organic operation, there are many aspects of the farm to manage: all the different types of vegetables, grains, fruit, livestock, cover crops, in addition to building up the soil, irrigation, pest control, weed control, without the help of synthetic chemicals (Crosson *et al.* 1990, p. 35). The information that is necessary to farm organically is usually much more difficult to obtain than material on conventional farming methods, especially information that is compatible with the growing conditions in the Maritimes, which results in farmers often having to proceed by trial and error. This can make it very disheartening for farmers

starting out in organics growing, or for farmers who decide to expand their operation to a commercial scale.

Another barrier that was mentioned by the respondents is a psychological barrier. Some growers may come into organic farming with the romantic image of instantly becoming a small successful farmer in tune with nature. They may not be prepared for the extensive costs in time and money of starting an organic farming operation. Also, they may not be ready for *"the isolation of living in the countryside"* (Alex DeNicola), or of dealing with the criticisms that are associated with organic farming and with the practice of a marginal activity. The fact that these farmers are seriously involved in an activity that they strongly believe in, but that the rest of the world often does not recognize, cannot be overlooked. Dealing with these issues on a personal level, as well as understanding what motivates them to continue farming organically and finding creative ways to face the challenges, may lead to frustration and discouragement for many farmers.

Since there is insufficient information available for organic growing, and this information is difficult to access, farmers often lack the knowledge and the skills necessary to manage and work on an organic farm operation. Again, the skills that are needed for organic farming differ greatly from those required for conventional farming:

"Conventional farming is beating things with hammers; and you have to be detailed and subtle, and use a lot more finesse to do (organic farming)."
(Rick Gilbert)

"You can train any idiot to drive a tractor. I would say it's less of a problem for (conventional farmers) because you don't have to put so much thought into your job. They're lower-skilled jobs, even if you're driving a $150 000 tractor. They're still pretty simple skills involved, but with organic growing, (it's more complex skills)."
(Neil Van Nostrand)

The skills are more complex in organic farming, and much harder to acquire, partly because of the absence of organic programs at agricultural colleges and schools. Even finding individual courses on organic practices is difficult, as mentioned by the respondents.

A fourth barrier is time and patience. Even if a farmer can acquire the skills, access the necessary information, and deal with being marginal and under-valued, the success will not be instantaneous. *"Money, time, energy"* (Jann Chute) are three factors that have the power to make or break a farm household and its farm operation. Organic farming is, by definition, a slow process, an evolution. The soil needs much care and time to be built up to a level that will sustain an organic operation, especially if it had not been well-cared for previously:

"Improving your soil quality. Patience, you need to have a lot of patience. One thing (about) people I've seen who drop (out of organic agriculture), who fail, is impatience and lack of respect for the soil. (...) You have to respect all the other factors, and the soil is one that most people ignore. There's a lot you can't control."
(Janet Wallace, on what is needed to be 'successful')

Organic agriculture does not involve controlling the growing process. Instead, the natural cycles must be respected, and the system must always be improved, in order to create as much of a balanced ecosystem as possible. This requires much time, energy, creativity, skills, and knowledge.

"The biggest obstacle is (public) ignorance."
(David Chute)

Finally, as mentioned in the previous section, there is still lack of recognition for organic farming, from all sectors of society. It would even be fair to say that the general public does not even know that there are organic farmers in the Maritimes, as mentioned by

the respondents and as observed by the researcher. The public has a general idea of what organic food is, and where it is available, but the connection with local organic farmers is absent. The frustration associated with the lack of recognition and support, coupled with financial difficulties, may explain why many organic farmers decide to abandon their dreams of farming, or why they are reticent to expand their operation, or try to make a living solely from their farm.

In the next section, the main needs for organic farmers and the organic movement to surmount these barriers, and to develop soundly in the future, are identified.

6.3 Needs for the future

The five main needs for the future of organic farming are:

1- more farmers
2- external forces such as biotechnology
3- working together
4- become integral to the rural community
5- expand the focus of organic agriculture

"My answer would be just time and education. It'll happen, it's inevitable."
(Rick Gilbert, replying to what organic agriculture needs to develop)

In addition to the more abstract needs mentioned above (time, energy, creativity, knowledge, recognition), some respondents believe that what is ultimately needed is more farmers:

"At some point, there really has to be a repopulation (of the countryside). There has to be more people doing it, otherwise we're just going to end up with industrial organic. As long as 2 or 3% of the population is feeding 97%, that can't happen organically. So when the conventional loudspeakers say that organic can't feed the world, they're right. As long as that's the ratio, 3% doing the farming, then organic can't feed the world."
(Alex DeNicola)

According to these respondents, having more organic farmers will address the barriers listed above. If there are more farmers, there will also be more recognition and acceptance. This will then lead to more research and publications, and farmers will feel more confident in what they are doing.

Other respondents believe that organic agriculture is already on an upswing wave, and that there is nothing stopping it now. The consumers are demanding more and more organic products. The governments and researchers are slowly taking notice, and the organic farmers are becoming better organized, efficient growers. The counter-trend to organic farming, that is the rise of biotechnology and agricultural chemical sophistication, might also lead to a surge in demand for organic food. Many consumers seem to have a saturation point when it comes to food manipulation. Therefore, with better labelling practices and improved consumer knowledge, more and more customers will definitely be looking for alternatives to irradiated, genetically-engineered, sprayed, waxed, imported, perfect-looking but ill-tasting food. And that is where organic (and ecological, biological, biodynamic) food comes in:

"I think it's (developing) despite of organic agriculture. It's going to happen because of things that are happening outside of organic agriculture. Be it the contaminated beef, or be it the spray that screwed up the apple juice, and whatever the reason is. I think other people's mistakes will drive more and more consumers in that direction. More than the organic movement can do for itself. It's going to be done by Monsanto, and by genetic engineering and by irradiation of food. If suddenly, every hot dog on the market is going to have the little irradiation sign on it, it's going to turn some people off."
(Michael Wolter, replying to what organic agriculture needs to develop)

Another recurring theme is the necessity of working together as a movement, or as a group of people committed to the same ideals, towards increasing the visibility and the

recognition of organic farming. One farmer emphasizes the importance of staying realistic and focused:

"I think (we need) people with realistic vision and expectations. (...) I think there's some overzealous individuals in the organizations, and I think there are some that would change and make the standards too lax, so one hopefully balances off the other, and we stay on a reasonably even keel."
(Jim Inglis)

Another farmer agrees that these reasonable goals, as well as the ability to listen to each other, and to work together, are necessary for organic agriculture *"to become accepted, and promoted, and recognized that it's not just a fly-by-night operation."* (Joice Rennie). Other farmers mention the need for organic agriculture to become an integral part of rural communities. This follows the organic principle of being an activity that aims to be sustainable at many levels, such as the household level, the farm level, and the community level. Organic farms have the ability to reconnect the food consumers with the food that they are eating, as well as with their local community. This may be done by emphasizing the educational role of organic farmers, by increasing farmers' involvement and visibility in community activities, and by having a more direct mode of food distribution:

"For me, there's a sense of needing to have organic agriculture take part in people's needs to be forming communities, and desires to be part of community projects. And, I think we would find a lot more people if we focused on that more. That's what CSA is about. We promote it as a community thing."
(Summer Fike)

The organic movement also needs to expand its focus, in order to include related disciplines such as the health sector. Since 'health' is the main reason that farmers grow organically, it can be assumed that it is probably one of the main reasons why consumers buy

organic food. The link between human health and eating organic food should therefore be promoted in the medical and dental communities:

"Dieticians and nutritionists and doctors...I think a lot of health care professionals need much greater education in (organic food)."
(Sandi Troop)

It has also been stated by the respondents that there will be an increasing number of people suffering from environmental sensitivities, food sensitivies and allergies, as mainstream food becomes more and more manipulated and transformed from its original state. This means that health professionals will need to be aware of alternative food types, and where these foods can be found, to assist these patients in making sound food choices.

The organic movement will benefit from not maintaining its 'fringe' status, and by forming links with other related sectors, such as the health care sector. This will contribute to increase the visibility and awareness of organic food, as well as issues related to nutrition and to farming, since many more people will be reached in this manner than with the limited actions of the organic movement. The general public might also respond better to the information coming from the health community than from the organic community because it is better known and even better respected.

In light of these barriers and needs, the next section discusses other trends for the future for organic agriculture.

6.4 Trends for the future

"We're a long way from achieving what we aim to do."
(Neil Van Nostrand)

There seems to be two opposing trends for Canadian organic agriculture in the future:

1- Industrial organic agriculture, focused on large-scale farms and exporting.

2- The growth of organic agriculture as an alternative to conventional agriculture, because of the negative aspects of this type of agriculture.

The first trend, the move towards more large-scale, commercial, organic farms, with organic food distributed through conventional channels, and even exported, will most certainly leave Nova Scotia growers at a disadvantage. Certification will become necessary for all growers, and the organic standards will become much more permissive, so as to allow these large-scale operations to be considered "organic". The small organic growers in Nova Scotia will have trouble competing with large-scale operations in the core agricultural areas of the country, in terms of costs, volumes, and efficiency. They will need to decide if they want to follow this trend, or if they would rather go against the trend, and retain their strict organic standards, their organic lifestyle, and their local customer-base. This could then lead to even more conflict and disunity in the organic 'movement'. Many of the current small growers would probably leave farming because of increasing pressures and financial uncertainty, and be replaced by large conventional growers who are often converting to organic farming to 'make a buck'.

In the second scenario, organic farming will grow, but in a much different way than above. Some respondents believe that 'strict organics' will gain more prominence, as the natural environment is degraded more and more, as conventional agriculture becomes more

and more unsustainable, and as the content of conventional food becomes increasingly mysterious:

"I think organic (farming) is going to become more and more important as our food and drug people permit more and more radical alterations to our food. (...) And so now, you're talking about (farmers) that have to be bio-chemists to know what the heck they're doing with a plant. And, I think people are going to become more and more sensitive, physically-intolerant of these things, and the demand for what used to be will become critical."
(Jann Chute)

"I see (organic) as becoming a necessity because large farms are not sustainable."
(Joice Rennie)

In this scenario, organic agriculture will include small-scale as well as larger scale farms. It will also include certified as well as non-certified farms. It will consist of diversified farms dealing with a variety of products, non-processed and processed. These products will often be distributed through alternative distribution channels, such as health food stores, farmers markets, co-operatives, and as locally as possible. The relationship between the farmer and the consumer will be encouraged by this local distribution, as well as by farmers participating in community events, and opening up their farms to the community. CSAs and buying groups will become the distribution of choice for organic farmers and consumers. In addition, consumers will be willing to pay a fair price for organic food, so that organic farmers can be economically sustainable with their farms.

These scenarios give the two extreme snapshots of the future of organics. In reality, organic agriculture will probably include strands of these two trends. However, there is already discord in the organic movement over the future of organic food. The negotiations in the United States over organic standards have been stalled because of opposing viewpoints between the large players, the small, dedicated growers, and the worried

consumers. Therefore, the move towards industrial organic agriculture seems to be put on hold for the time being:

"I was really happy about that legislation in the States, in which they're trying to control the use of the word organic. If they had allowed genetically-modified organisms, sewage sludge and irradiation, that probably would've moved into Canada too, those same regulations. And, if that was the case, and if that is the case in the future, I think we're doomed in terms of the validity and the believability of organic certification. But if we don't have that, if we can keep organic clean, I think it will really grow."
(Jennifer Scott)

However, the move towards industrializing elements of organic agriculture is still going ahead. Governments are doing research and publishing reports on the exporting possibilities of Canadian organic food (NSDAM 1995; NSDAM 1996; Agriculture Canada 1988; Canadian Organic Growers 1990). In addition, some farmers believe that Nova Scotia is well-suited to export organic food to the New England states, and that this exporting will start to happen with an increase of organic farmers, and an increase of food volumes:

"I think Nova Scotia is in a position that they may export, especially if they go into processing or in more specialized things. (...) Because we have a small population base, it would be relatively easy if a few mainstream or larger growers got into organics to supply more than the local market can absorb. We have the land base, we have the resources, we have the growing climate to produce certain things that, for a few months of the year, are more than we can handle here. So, I think export is a natural opportunity to look at. And, with our proximity to the New England market and the concentration of people there, I think that that will happen."
(Norbert Kungl)

In contrast, there seems to be a movement towards emphasizing the local aspect of organic agriculture. CSAs (and other similar structures) are growing rapidly in Nova Scotia, and across North America. The organic movements are also starting to raise the question of whether the organic aspect or the local aspect should be emphasized when buying food (Berry 1999, p. 4). In other words, should consumers buy an organic carrot from California

over a carrot from the conventional farmer down the road? This is an important issue, and it will certainly influence much of the discussion in the organic movement in the near future. It seems that this is a time for profound reflection over the role of the organic movement, its mandate, what it should be promoting to the general public, and how it should be influencing governments.

Let us now examine the direction organic agriculture is adopting for the future.

6.5 Direction organic agriculture is moving in

"(In 10 years) I think that organic agriculture, so-called, will advance tremendously, and that we will have some really excellent small farmers."
(Jim Drescher)

First of all, in its future developments, organic farming should not forget its roots, that is the five basic principles that were presented in Chapter 1. The reasons why organic agriculture was developed are still pertinent today, and maybe even more so than 50 years ago. The industrial model has now infiltrated the farm world to the extent that farming has been replaced by 'agribusiness'. As a result, conventional agriculture is now very efficient, productive, and profitable, but not necessarily for the farmers or the biosphere. One of the main problems with this industrial model seems to be that agriculture cannot be considered like 'just another business'. This is due to the fact that it is rooted in natural cycles, and it is subject to environmental conditions. The production process cannot be regulated and standardized as in other business sectors. This industrialization process seems to be rapidly entering organic agriculture, in the form of national standards, large scale farms, and increased processing. A portion of the alternative movement seems to be skeptical vis-à-vis

this process, and is actively working towards keeping organic agriculture a local, independent activity. This is provoking some intense conflicts within the organic organization over the future of organic agriculture.

It would probably be beneficial for the organic movement to have a cohesive vision and to work together, instead of encouraging more fragmentation. However, this might not be possible, and would possibly be in opposition with organic principles. The movement aims to be flexible and adaptable, which means that opinions and goals might vary from region to region and from group to group. Even with this fragmentation, it would be advantageous for the organic movement in the Maritimes to ally itself with other small farmers, and other specialty farmers, who also do not receive widespread recognition or support, even if they do not share the same philosophies. Also, I think that organic farming would benefit from developing as a distinct activity, in parallel to conventional farming, without claiming to 'take over' conventional markets, customers, or government money. There are enough customers for both types of food; the market for organic food is still fairly small and still has much room to develop; organic farmers only depend on government funding to a very small degree; there is enough land for both organic and conventional farming in Canada, especially in the Maritimes. In fact, Lockeretz found that in Massachusetts, organic farms are often situated on land that was not active when they purchased it (Lockeretz 1995, p. 664), and the same is true for many organic farms in Nova Scotia. Therefore, the conventional agricultural community should not feel threatened by the development of organic agriculture, and the organic farming community should not feel intimidated by the larger conventional community.

Organic farmers hold a crucial role in the Maritimes, during this development stage of "organics". There is much education to be done with the consuming public, with government bodies, and with the marketing industry. Farmers can play their part in demonstrating how food can be grown organically and how a small organic farm can be viable. The bulk of the education process, however, should not be left up to the farmers. The organic movement, as mentioned in the previous section, should find allies to help to promote their cause. These allies could include the health sector, the environmental sector, concerned consumers, sympathetic retailers and other related businesses, interested researchers, and so on. Forming alliances could thus alleviate the reliance on organic farmers to provide all the necessary education and promotion that is related to organic food.

Furthermore, the organic movement, which ideally includes representatives from all the above-mentioned sectors, as well as farmers, might want to work on strengthening the regional infrastructure and institutions for organic farmers in all parts of Canada, instead of focusing on standardizing the process for all organic farmers, by having national certification. Also, farmers need to retain control of the decision-making that directly affects their farm operation, and their livelihood, so that organic farming is not 'co-opted' by the public or the private sectors, a fear that was expressed by many respondents.

The many 'levels' of organic farming, from the 'fundamentalists' who closely follow the organic principles and laws, to the large farmers using some organic methods on their operation, have to be recognized and accepted, in order to work towards finding ways in which agriculture can truly be sustainable (environmentally, economically, socially, politically) in the future. This could be carried out without debating whether it should be

called "organic", "biodynamic", "ecological", or something else, because all these terms harbour confusion and are imprecise. The ultimate goal is to rethink the actual agricultural system, and to design an agricultural system in which all the different types of farms and farmers are accepted, while working towards sustaining farm land, soil fertility, farmers, and crop/livestock varieties for a long, long time. Reaching this goal will be difficult and confronted with many obstacles, the main one being the constant rise of agribusiness and corporate agriculture, coupled with the intense government support for mainstream types of agriculture, which leave alternative types of farming on the fringes of agricultural activity.

6.6 Assessment of organic farming and other research

To recapitulate the main themes of this thesis, organic farms, as well as other types of farms, can act as educational tools by being accessible to the public, and to demonstrate how food is grown, and what farming is all about. They also strengthen community relations and the local economy by participating in social events such as fairs, farmers markets, open-farm days, and by getting their supplies from other local farms or businesses. However, they do need a strong vision for the future, as mentioned above, and they cannot do it alone. They need allies in many segments of society, such as the ones mentioned above, including the academic world and all levels of governments. There is still very little research that has been done that directly relates to the organic farming experience. Farmers are still in need of technical and regional information in relation to crop varieties and organic methods. There should also be more farmer-based studies, as farmers hold much information about farming that cannot be accessed anywhere else, as I found during my research. They truly

know what farming consists of, and they understand that it cannot be viewed as a set of isolated elements. Their viewpoint can serve as a model for interdisciplinary research that focuses on one aspect of farming (social issues, economic issues, environmental issues, or political issues), but realizes that the other parts also have to be taken into account, in order to fully understand the dynamic system of farming.

Another possible area of study is to follow the organic food 'industry' from its production at the farm level to the consumption of this food. It would be useful to find out what behind-the-scenes processes interact during each stage. More specifically, the actual market for organic products, the number of organic growers (certified and non-certified), the supply of organic products that is available and how this supply is distributed, are all figures that are largely unknown. It has been noted that most of the organic food in Nova Scotia is distributed through alternative channels of distribution. A follow-up would be necessary to see if the distribution shifts from an alternative system to a conventional system, as organic farming develops and as the demand for organic food grows.

Other areas that were not assessed in this study, and that are worthy of research are the environmental impacts of organic farming, at the farm scale and at a wider scale, on a variety of farm sizes. Organic farmers pride themselves on having a positive impact on the environment, yet the environmental impacts of this type of farming are not fully understood, especially in terms of using organic inputs, and of allowing new, controversial practices with respect to the organic standards, such as the possible use of sewage sludge. Another underexplored aspect of organic farming is the link between the diversity aspect of organic farming and heritage breeds of livestock and crop seeds. It would also be interesting to

compare the extent that organic farming is practised in different regions of Canada, and what makes a region 'suitable' for sustaining a dynamic organic farming activity.

It seems that Nova Scotia is a part of the country which will be able to sustain and nurture the development of organic agriculture, as it has the institutional support structures such as NSOGA to encourage the growers; it has a sufficient land base and favorable growing conditions for organic farming; it has a growing consumer demand and awareness for organic products; it has various types of food distribution systems, including alternative, local channels; and, most importantly, it has an ever-increasing number of committed growers who are excellent managers, and who do believe in the long-term success of more benign agriculture in their province, and in Canada.

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Appendix A: Codes used in interviews

(...)	Interruption, very long pause, or part of interview omitted
...	Short pause or hesitation
(Laugh)	Laughter from the person talking
(Word or words)	Explanation or note from person transcribing
'words'	Interviewee quoting somebody else or themselves
<u>word</u>	Emphasis from the person talking
WORD	Extra emphasis from the person talking, almost screaming
S-	The interviewer
All other capital letters -	The people being interviewed

Appendix B: Abbreviations

CGSB - Canadian General Standards Board

COAB - Canadian Organic Advisory Board

COG - Canadian Organic Growers

COUP - Canadian Organic Unity Project

CSA - Community-Shared Agriculture or Community-Supported Agriculture

EAP - Ecological Agriculture Projects

LISA - Low Impact Sustainable Agriculture

NSDAM - Nova Scotia Department of Agriculture and Marketing

NSOGA - Nova Scotia Organic Growers Association

OCIA - Organic Crop Improvement Association

REAP - Resource Efficient Agricultural Production

Appendix C: Informed consent form for personal interviews

This consent form is to ensure that you, the participant, understand what this research entails, and that you have agreed to participate. It is required to allow the use of your responses, for the writing of a thesis and related materials.

I, _____, consent to participate in this study and to allow the answers recorded during the personal interview to be used for the purpose of writing a Masters thesis at Carleton University, as well as related presentations and/or publications. I understand that I have the right not to answer any questions. I understand that my responses can be quoted by the researcher, but will be kept anonymous if I wish, and that the audio cassettes and related transcripts will be destroyed at the end of the study. Until they are destroyed, these confidential materials will be kept locked up.

Signed _____

Date _____

Researcher's signature _____

Date _____

If you have any questions or require further information, feel free to contact the thesis supervisor, Professor Iain Wallace, Carleton University Geography Department, at (613) 520-2600 ext. 2575.

If you have any complaints concerning this study, feel free to contact the chair of the Geography Department at Carleton University, Dr. Mike Smith, at (613)520-2560.

Appendix D: List of the most frequently-asked questions during interviews

1. Where are you from?

2. What do like the most and the least about living here? (usually answered in terms of local community or province, sometimes at the farm level)

3. What brought you here, to NS or to this area? (If from a different area)

4. What is your farming background?

5. How did you get started in organic agriculture?

6. What does organic mean to you? Are there other words you would use to describe you farm? Do you like the word organic?

7. What are your short and long term goals with your farm?

8. How have you noticed that organic agriculture has changed since you've been involved with it?

9. What have been the gains and setbacks in organic agriculture?

10. What role do you think you have in the community as an organic farmer (or gardener or processor)? Do you think you have an influence in the community?

11.What role do you think you have in the larger agricultural community?

12. What kind of government support is there for organic agriculture, and should there be any?

13. Do you think organic agriculture has enough public recognition, exposure, and support?

14. What kind of support is there for organic agriculture and products from the wholesalers and retailers?

15. Do the customers, retailers and wholesalers understand what organic is?

16. Where and how do you sell your products?

17. What do you see as the ideal distribution for organic products?

18. Where did you and do you get your information on organic growing?

19. Is there a lot of sharing of information between the growers?

20. Is there a big division between organic and conventional farmers?

21. How important is certification for you?

22. What do you think of having national standards for organic certification?

23. What do you think are the main barriers for people who want to start out in organic agricuture or who want to expand their organic operation?

24. What do you think are the most important needs for organic agriculture to survive and develop in NS?

25. Where do you see the situation in 10 years?

26. Do you think NS is a good place to do what you're doing?

27. What do you think will happen to your farm once it has left your hands?

Appendix E: Cover letter and written questionnaire

1-47 Hazel Street
Ottawa (Ontario)
K1S 0G1
telephone: (613) 230-8747
e-mail: sgagnon@chat.carleton.ca

April 8, 1998

Dear farmers,

My name is Suzanne Gagnon and I am a graduate student at Carleton University, doing a Masters thesis in Geography. The topic of my thesis is Organic farming in Canada with a case study of the organic community in Nova Scotia. I will be looking at the human side of organic farming, and how this is linked with the economic, and institutional aspects. I believe this is an area where research needs to be done to gain a better understanding of why people choose to farm organically, and to increase recognition for organic farmers at the public and the government levels. I am asking for your help in making my survey a useful and informative piece of research.

The study I am doing consists of 2 parts: a mailed survey and personal interviews that will take place during May and June 1998. The surveys are mailed to all identifiable organic farmers in Nova Scotia. Then, about 15 of these farmers will be contacted for interviews. I will be calling these farmers during April and May to arrange meeting times and further arrangements.

Participation in this study is voluntary, and you have the freedom not to answer any question in the survey or in a subsequent interview. The information you give will be kept confidential, and will not be passed on to any individual or organization. Your name will also not be associated with the results as the information collected in the surveys will be compiled in a collective form for use in my thesis.

This survey consists of 29 questions, and it should not take more than 30 minutes to complete. After it is filled out, it is to be returned in the self-addressed stamped envelope enclosed. I would ask that you send the filled-out questionnaires **within 2 weeks** after receiving them, and at the latest before May 5, 1998. If you have any questions or problems filling out the questionnaire, do not hesitate to call me collect at **(613)230-8747** or e-mail me at **sgagnon@chat.carleton.ca**. I will respond as quickly as possible. Also, if you have any complaints concerning the study, they should be addressed to Professor Mike Smith, the chair of the Geography department, at (613)520-2560.

I will be compiling the results of all the surveys in a short report, that I would be happy to share with you. If you wish to have a copy of this report, please check off the yes box at the end of the questionnaire.

Thank you in advance for your time and consideration,

Suzanne Gagnon

MAILED QUESTIONNAIRE: Organic Farming

This questionnaire should be filled by a farm operator (person who works on the farm on a daily basis and is involved in the decision-making about the farm). The answers should be as specific as possible. If you need additional space to answer the questions, please use the blank sheet at the end of the questionnaire. Thank you.

General questions:

1. In what county in Nova Scotia is your farm located?_____
2. a. What is the size of your farm? ____acres
   b. How much of your farm is rented?____acres
   c. How much of your farm is owned? ____acres
3. How long have you operated your farm? ___years

4. What are the main farm products (types of crops, livestock, etc.) in your operation?
   a. _____
   b. _____
   c. _____
   d. _____

5. a. Number of people in farming household (who live on the farm) _____
   b. What are their ages? (example: 42, 41, 17, 14) _____

6. Do you consider yourself a "family" farm? _____(yes or no)
   If yes, give the number of family members? _____
   How many family members contribute to the farm on a daily basis? _____

7. How many household members (who live on the farm) work off the farm? ____
Specify type of work for each person:

Off-farm workers	Type of work (other than farming)
person no. 1	
person no. 2	
person no. 3	
person no. 4	
person no. 5	
person no. 6	

8. What is your farm business structure? (please put a checkmark in business structure and fill out the number of persons in that business structure, if relevant.
(Example:_✓_owner-operated---number of owners:_3_)

_____ owner-operated--- number of owners:_____
_____ co-operative-------number of members:_____
_____ family partnership-- number of partners:_____
_____ other partnership--- number of partners:_____
_____ land trust
_____ other (please specify: _____)

Motivations

9. Have you always used organic methods on your farm?_____ (yes or no)
If **not**, when did you start the transition to organic farming?_____ years ago

10. What are the main reasons you farm organically? (choose only 2, ranked in order, **1** being the most important, and **2** being the second most important)
____ environmental/ecological
____ economic
____ health
____ cultural/lifestyle
____ religious
____ political
____ other (please specify:_____)

11. What are the main advantages and benefits of farming organically? (please indicate the 5 most important, ranked in order from 1 to 5, **1** being the most important)

____ healthy for farmer and household
____ low costs
____ healthy for consumers
____ reduced environmental impact
____ income
____ independence
____ few weeds, pests, and disease
____ energy-efficient
____ organic products can be sold at premium prices
____ sustainable way of farming
____ reduced vulnerability to bad weather or other adverse conditions
____ products are of high quality
____ others (please specify:_____)

12. What are the disadvantages to farming organically? (please indicate the 5 most important, ranked in order from 1 to 5, 1 being the most important)

____ labor-intensive
____ uncertain economic returns
____ limited governmental support
____ reduced yields and productivity
____ lower quality products
____ more weeds, pests, disease
____ limited markets for organic products
____ consumer indifference
____ lack of control over labeling
____ others (please specify:_____)

Community and economics

13. Do you consider yourself actively involved in your community?_____(yes or no)

If yes, briefly comment on your activities, participation in community groups, events, etc.:

_____

_____

_____

_____

14. Do you offer workshops/seminars/classes/sessions to other farmers and/or the general public?_____ (yes or no)

If yes, briefly explain the nature of these sessions:

_____

_____

_____

_____

15. Do you conduct other on-farm work that is not agricultural in nature?____ (yes or no)
If **yes**, please indicate relevant activities :

____ Bed & Breakfast, farm stays, inn, hostel
____ camping facilities
____ hay rides
____ restaurant
____ food processing, example Jam (for selling)
____ crafts, woodworking, etc. (for selling)
____ other (please specify)

16. Where do you sell your farm products? (choose all that apply, ranked in order, **1** being the most important)

Place of sale	**Rank**	**Location (town, village, city)**
Farm gate		
Buyer's groups		
Farmers' markets		
U-pick/Pick-your-own		
Natural food stores		
Restaurants		
Independent supermarket		
Supermarket chain		
other (please specify:_____)		

17. What is your prime source of income?

__ farm
__ off-farm work
__ other (please specify:_____)

18. What are your gross farm sales? (for **1997**)

_____ less than 5 000$
_____ 5 000$ to 14 999$
_____ 15 000 to 30 000$
_____ over 30 000$

19. Did you have hired labor in **1997**?_____ (yes or no)
    If **yes**, how many persons?_____
    How many weeks per year?_____
    At what time during the year?_____

20. In **1997**, did you benefit from:

_____ volunteer help (non-family)
_____ interns
_____ WWOOFers
_____ apprentices
_____ other types of help (please specify:_____)

21. Compared to conventional/mainstream farmers, do you consider yourself:

___ in a better economic situation
___ in a worse economic situation
___ in a similar economic situation

Institutional

22. Is your farm certified organic?_____ (yes or no)

    If **yes**, with which association (s)?_____

    _____

23. In your opinion, what are the advantages to being certified? (please answer even if you are not certified)

_____

_____

_____

24. In your opinion, what are the disadvantages to being certified?

_____

_____

_____

25. Do you believe national certification standards are necessary?____(yes or no)
Why? Briefly comment: _____

_____

_____

_____

26. Are there other issues important to you that were not mentioned in this survey.

Specify:_____

_____

_____

_____

_____

_____

27. Do you wish to receive a copy of a report on the results of this survey?

____ yes
____ no

Basic demographic information (these questions are to be answered by the main person filling out the survey)

28. Age: _____

29. Sex: Male Female

Thank you for your time and cooperation!

Suzanne Gagnon

Appendix F: Important addresses and contacts

Volunteer:

WWOOF - Canada
John Vanden Heuvel
RR # 2 S-18 C-9
Nelson, BC
V1L 5P5
Tel: (250)354-4417

Apprenticeships:

Stewards of Irreplaceable Land (S.O.I.L.)
Brenda Wenstob
3680 Otter Point Road
Sooke, BC
VOS 1NO
Tel: (604)642-2161

The Mentor Apprentice Exchange
Box 479
Wolfville, NS
BOP 1XO
Tel: (902)542-0867

Related organizations:

Ecological Agriculture Projects, McGill University (MacDonald Campus)
Ste-Anne-de-Bellevue, QC
H9X 3V9
Tel: (514)398-7771
Fax: (514)398-7621
Email: info@eap.mcgill.ca

Seeds of Diversity (formerly Heritage Seed Program)
P.O. Box 36
Station Q
Toronto, ON
M4T 2C7

Canadian Organic Growers (and Eco-Farm & Garden)
P.O. Box 6408
Station J
Ottawa, Ontario
K2A 3Y6
Tel: (613)231-9047
http://www.gks.com/cog/

Resource Efficient Agricultural Production- Canada (R.E.A.P.)
Box 125 Glenaladale House
Ste-Anne-de-Bellevue, QC
H9X 3V9
Tel: (514)398-7743
Fax: (524)398-7972
Email: reap@interlink.net

Ecological Farmers Association of Ontario (E.F.A.O.)
Box 127
Wroxeter, ON
NOG 2XO
Tel: (613)924-2052
Fax: (613) 924-9755

Nova Scotia Organic Growers Association (N.S.O.G.A)
RR 1
Margaretsville, NS
BOS 1NO
Tel: (902)825-6834
Fax: (902)825-3139
Email: jwallace@istar.ca
http://www.gks.com/NSOGA

OCIA - PEI
Box 299
Cornwall, PEI
COA 1HO
Tel: (902)675-3501
Fax: (902)675-2533

Maritime Certified Organic Growers
Anthony Rhinelander
3717 Fredericton Rd.
Tracyville, NB
EOG 3CO
Tel: (506) 368-2558

Canadian Organic Advisory Board (C.O.A.B)
Gordon Hamblin
Tel/Fax: (306)699-2402
OR
Dan Hara
Tel: (613)722-4191 or (613)233-9509
Fax: (613)722-5177
Email: Dan@harassociates.com

Conservation Council of New Brunswick
180 St. John St.
Fredericton, NB
E3B 4A9
Email: ccnbcoon@nbnet.nb.ca

Government bodies:

Agriculture and Agri-Food Canada
Sir John Carling Building
930 Carling Avenue
Ottawa, ON
K1A OC5
Tel: (613)759-6610

Alternative Farming Systems Information Center (USDA)
National Agricultural Library, Room 304
10301 Baltimore Ave.
Beltsville, MD
20705-2351
Tel: (301)504-6559
Email: afsic@nal.usda.gov/afsic

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