

ORGANIC GRAINS AND CEREAL

MARKET RESEARCH



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March 31, 2004

PEI Certified Organic Producers Cooperative
Attn: David MacKay
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Dear Mr. MacKay:

RE: Final Report – Organic Grains and Cereal Market Research

I am pleased to provide our Final Report for the captioned project.

Thank you for your help and co-ordination in completing this project. It was a pleasure to work with you and the other members of the Steering Committee.

Yours truly,

Douglas MacArthur
PRESIDENT

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Executive Summary

Background

This Organic Grains and Cereal Market Research study has been undertaken by MacArthur Group Inc., during the period January – March 2004 for the Prince Edward Island Certified Organic Producers Co-operative Ltd.

The Co-operative has identified the lack of market intelligence in grains and oilseeds as a limiting factor in the growth of the PEI organic industry. While organic wheat and other grains are still only a small part of total organic agriculture production, interest is growing among farmers, food processors, and retailers.

Market Overview

The organic market is growing in all areas. Reports from around the world paint a picture of world growth, opportunity, and competition in the organic food sector. In ever increasing numbers, consumers are seeking what they perceive as healthful, safe food, often with the caveat that it is produced in an “environmentally friendly” way. Companies across the spectrum of the food system are working to respond quickly and accurately to these preferences.

Consumer food markets for organic grain products are growing quickly, including the following:

- Organic breakfast products, including ready-to-eat cereals and breakfast bars.

- Organic breads (including new products such as organically produced bannock bread) and baked goods, including yeast-free organic products used in a wide variety of baked goods.

- Snack foods are a large category of future opportunity. More than 80% of Canadians snack every day and 65% have stated they would rather snack on healthy foods. There are as yet very few organic grain products in this category.

Central Canadian buyers advise that demand is high, particularly for spelt. Other cereals in demand include hard red spring wheat, rye, buckwheat, and soft and hard winter wheat.

The organic feed market is growing quickly, because consumers increasingly want meat and animal products that:

- taste great,
- are locally raised,
- come from animals raised in humane management systems,
- come from animals raised in systems that are ecologically sustainable,
- are produced on small family farms, rather than in “factory” farms,

are unique, are healthy, and are raised without antibiotics, genetically modified organisms, or growth hormones.

Soy and rice beverages are a key segment of the consumer market for soy products and include four main segments: lactose-intolerant/allergic consumers; consumers of Asian origins; people concerned about what they eat, who believe that consuming soy beverages and cereals has health benefits; and vegetarians. In Canada, there has been a strong increase in sales of soy and rice beverages in recent years. Although many companies produce some of these products, the majority is not organic. However, Bianca International Organics finds demand strong for organic soybeans in the Canadian market.

According to a 2001 Agriculture and Agri-Food Canada market study, the retail market for organic food in Canada at that time was worth \$300-\$750 million, with 80% of the products being imported. The factors affecting Canadian food choice are, in order: taste, nutrition and health, ease of preparation, and price. The three main triggers for choosing organic foods are children, food allergies, and healthy lifestyles.

Forty-nine percent of Canadian organic purchases are made in mass-market outlets, while 48% are made in specialty stores, and 3% are mostly made at farmers markets. Loblaws is the largest mass marketer, while Whole Foods Market Inc. and Wild Oats Markets Inc. are two large US specialty chains now in the Canadian market. North American industry analysts expect that by 2008, organic foods will make up nearly 10% of the total retail foods market.

As organics have moved from the fringe to mainstream, North Americans are seeking the same quality and packaging as conventional food offers. As noted by one organic grower in the USA, "Ten years ago, if you grew organically, you just did the best you could, threw it in a box, and that's what people bought. Nowadays, we take conventional standards and apply them to organic. Same weight, same size, and no bugs."

Table 1: Market Distribution of Organic Food and Annual Expenditures in Atlantic Canada

	Market Share Distribution	Organic Annual Expenditures	% of Total Annual Food Expenditures
Meat and Fish	1%	\$650,000	0.1%
Dairy and Eggs	11%	\$7,150,000	1.3%
Bakery and Cereals	13%	\$8,450,000	1.5%
Fruit and Nuts	21%	\$13,650,000	3.8%
Vegetables	21%	\$13,650,000	4.0%
Beverages	17%	\$11,050,000	7.0%
Other	16%	\$10,400,000	1.2%
Total	100%	\$65,000,000	

Source: Statistics Canada 2001.

It is estimated that 85%- 90% of the total organic sales in Canada are imported from the US. Small amounts are also imported from Europe. Using these assumptions, it would mean that the domestic supply of organic products in Atlantic Canada is currently about \$6.5 million annually, of the \$65 million in annual expenditures for organic food in Atlantic Canada. The opportunity for product displacement of imported organic products is obviously large.

Production Overview

As a result of increased consumer demand, improved marketing techniques, and current low prices for conventional grains, production of organic crops is expanding across Canada. In Canada, total annual production of organic grains and oilseeds is estimated to be about 140,000 tonnes, valued at \$400-\$500 million. Organic grain production is concentrated in Western Canada, with wheat, including durum, contributing one-half of total organic grain. Wheat, excluding durum, is the largest crop, while durum and rye are the second largest crops and roughly equal in output. Buckwheat production is small and is increasing at a relatively slow pace.

Oilseeds make up only 10-20% of total organic production due to problems with weeds and disease, combined with a lack of organic crushing facilities. The major organic oilseeds are flax, canola, and sunflowers. Legume production is relatively small in comparison with other crops.

Over the medium term, Agriculture and Agri Food Canada (AAFC) in 2000 projected that Canadian farm area seeded to organic crops could increase 500%. AAFC notes that by 2005, the organic industry is anticipating that their market share will increase to 10% of the Canadian retail market, and that organic bulk and value-added products currently represent one alternative to conventional farming.

For organic production to be economically viable, premiums are often required to compensate producers for the loss in yields due to the abandonment of conventional pesticides and fertilizers and for the three-year conversion period where yield declines are typical. Over the long run, the sustainability of organic production is dependent on the profitability of the rotation compared to growing conventional crops.

MacArthur Group reviewed various secondary research sources and surveyed a number of PEI organic producers resulting in the following information:

Organic cereal production is presently very limited in PEI. There are a few producers who grow organic feed grain for their own use, a small acreage is grown to supply regional mills and bakeries, and a small tonnage of soybeans is being grown for a local tofu business, as well as for periodic export.

Milling wheat, used to produce flour, is attracting more attention from PEI growers (both conventional and organic) looking for a higher value crop. There are currently between

three to four thousand acres produced on the Island annually, with most of the crop marketed to Dover Mills in Halifax. Some is also shipped to the Speerville organic mill in New Brunswick. *Note: Dover Mills has indicated to the consultant that they may start handling organic product in the near future.*

The following table summarizes key organic statistics for the four Atlantic Provinces in 2003.

Table 2: 2003 Atlantic Canada Organic Agriculture Activity Summary

	PEI	N.S.	N.B.	Nfld.	Total
# of organic producers	23	45	31	3	102
Plus number in transition	5	1	2	-	8
# of processors	2	13	14	-	29
Total Acreage	1,616	1,022	2,114	-	4,752
Total producer sales	\$ 590,000	\$ 807,500	\$ 475,000	\$ 92,500	\$ 1,965,000
Total processor sales	\$ 120,000	\$ 1,857,139	\$ 1,075,000	-	\$ 3,052,139
Milling wheat (acres)	117	-	27	-	144
Oats (acres)	50	3	20	-	73
Spelt (acres)	39	6	5	-	50
Other spring grains (acres)	47	83	45	-	175
Soy beans (acres)	82	-	-	-	82
Cattle (head)	50	140	97	-	287
Poultry/eggs (layers)	-	350	400	-	750
Sheep	-	50	-	-	50
Pigs	-	11	-	-	11

Source: MacArthur Group Inc., derived from 2003 Certified Organic Statistics, Summary of Atlantic Region.

Opportunity

The introduction of the National Standard of Canada for Organic Agriculture and the recognition of the Canadian accreditation system by Canada's major trade partners are expected to result in stronger exports of organic grains and oilseeds over the medium term. Consumer demand is also expected to grow substantially in world markets for grains and oilseeds.

There are major growth opportunities for organically grown grain, with the market for bulk organic feeds projected to grow by a factor of ten over the next few years, if enough product is available. And there appears to be even more opportunity on the export level to Europe, USA, and Latin America.

Here in the Atlantic region, the organic meat industry is in its infancy. However, it is noted that there is great potential for organic beef, pork, and other meat products, including pasture raised organic chicken. Chicken is easy to grow, easy to handle, has a quick turnover, and is popular with the consumer. Bianca International Organics of Montreal advises that the organic feed products for which demand is increasing are yellow peas, soybeans, and barley.

Potential Buyers

Speerville Mills in New Brunswick processes and distributes flour grains, including spelt, oats, winter soft wheat, rye, and hulless barley. Other products in demand are sunflower seeds, lentils, split peas, and certified herbs. They purchase 50-80 tonnes from Island growers currently and 75% of products are organic. They buy grain year round in small amounts, with total purchase annually being: 95-100 tonnes of wheat, 60-75 tonnes of oats, 30 tonnes of rye, and 40-50 tonnes of spelt. They will not dry grain if less than five tonnes. Prices are stable, with approximate buying prices being \$400 per tonne for wheat, \$500 per tonne for spelt, \$300-\$400 per tonne for rye, depending on quality, and \$350 per tonne for oats.

Although Speerville Mills is not dealing in soybeans now, they will be looking at processing soybeans in the fall. They see an opportunity and will be looking for suppliers.

Pioneer Organics of Waterville, NS, tried to export products but had difficulties filling minimum orders. Needed to be able to fill 30 tonne capacity tractor-trailers with grain, but farmers were not able to supply sufficient volumes. In order to fill a truck, Pioneer had to get grains from here and there (often only a few bags at a time), and this meant mixing lower quality grains with higher quality grains, resulting in lower sale prices. Also, in order to export grain, farmers have to be federally inspected and this takes time and money.

Pioneer Organics did not find the grains and oilseeds business sustainable in Atlantic Canada because of the lack of suppliers and product. An additional barrier is shipping costs because export markets are far away.

Co-op Atlantic in Moncton, NB, buys for Co-op livestock feed mills in Atlantic Canada. Supply is limited in Atlantic Canada due to small number of producers who are certified organic. Demand from their mills is for layer feeds, hog feeds, and turkey feeds. A major problem is that some feeds require 10-12 ingredients, and each ingredient must be certified organic. Co-op Atlantic is developing a new price list and, in the meantime, suggests producers use Homestead Organics price list (See Section 4.2.11 of this report.)

Valley Flaxflour Ltd. in Middleton, NS, processes flax seed into flour. The company expects to become organic in two to three years, depending on demand. Most of the flax product is bought from Manitoba, but they would prefer to buy locally to reduce costs.

Local organic bakers within the region are purchasing certified cereals and often are required to import their needs, as local supply is unavailable. The small bakeries generally do not have

much storage space for grain and prefer to purchase smaller tonnages. When they import such amounts the cost is very high due to transportation costs to haul partial tonnages from Ontario.

Atlantic Superstores foresee excellent growth in the organic food market in the Atlantic region. Although customers usually say they want to buy local; if quality and price are not consistent with other sources, they won't buy. The most popular organic products are produce and they mirror items in demand under conventional farming (e.g. bananas, potatoes, grapes). For packaged products, organic items such as coffee, tea, snacks, cereal, dairy products, and frozen foods are popular. Everything has to be certified organic.

The Sobey's, Stellarton, NS, person responsible for purchasing for the organic flours and baking goods products says their only Maritime organic supplier is Speerville Mills. Many products come in from Western Canada. The most popular organic product sold in Sobey's bakeries is white flour. Sobey's would support more local companies if assured supply was there and, contrary to the Charlottetown store spokesperson, the Stellarton office says farmers could sell direct to some Sobey's stores.

Home Grown Organics in Halifax sells organic fruits and vegetables, meats, baking goods, pasta sauces, and more. It has the only delivery service of its kind in the Metro Halifax area. It buys various products through Seaspray in PEI, including turnips and potatoes, and also buys from Speerville Mills – has a total of 100 suppliers of products.

Home Grown Organics' main business is wholesaling to restaurants and other food retailers. Products in high demand from consumers are spelt flours, gluten free products, oats, multi-grain products, buckwheat, brown rice, and flax seeds. An increasingly popular product is free-range beef and chicken.

As of May 1, 2004, the operation is moving to a better location and bigger storage facility. This will allow the firm to buy more produce direct from farmers (mainly fruits and vegetables). They will compete directly with Pete's Frutique.

The Root Cellar in Charlottetown sells the following organic products: alfalfa, soybeans, soymilk, soy sauces, other soy products, oats, spelt flour, buckwheat, herbs, organic snacks; plus vegetables such as broccoli, cauliflower, carrots, lettuce, yams, sweet potatoes, beets, and green beans. Their most popular items are gluten free products. Between May and October, the store buys 85% of their organic produce from local farmers. For the rest of the year, organic products are supplied by outside sources, such as Pro Organics.

There are various potential buyers (see main body of this report) in Quebec, Ontario, and New England, who are very interested in purchasing organic grains and oilseeds from PEI producers.

Strategic Considerations

1. Instead of providing only a market research study, this report attempts to map out an overall organic grains and cereals strategic plan that takes into account all of the factors necessary to build a stronger PEI organic grains and cereals industry.
2. The future and success of this segment of the Island organics industry will depend on developing a strong and vibrant overall organic farming industry in PEI.
3. Although conventional agriculture in PEI is a world leader in terms of production, processing and related value-added (e.g. packaging, branding), organic agriculture in PEI is in its infancy and is developing at a rate considerably behind other jurisdictions, most of which are not as advanced in conventional agriculture as is PEI. There is simply not the existing organic capacity, at the organizational or production levels, in PEI to move forward with large, value-added projects as is happening in organic agriculture in some other jurisdictions.
4. Most of the issues facing the PEI organic grains and cereals sector are production or infrastructure related, not marketing issues.

Recommendations

Recommendation #1: The PEI Certified Organic Producers Co-operative should play the lead role in advancing the PEI organic agriculture industry, including the grains and oilseeds sector. This will require substantial additional human and technical resources within the Co-operative.

Recommendation #2: The PEI Certified Organic Producers Co-operative should immediately seek buy-in and enhanced, comprehensive, and ongoing support from the Government of Prince Edward Island, with such support centred in, but expanding beyond, the PEI Department of Agriculture, Fisheries, Aquaculture and Forestry.

Recommendation #3: With the Government of Prince Edward Island firmly behind the strategy, the PEI Certified Organic Producers Co-operative should next ensure that the federal government is equally supportive. While the contribution of the Province will be largely in the area of institutional and human resources, the federal contribution should be primarily in funding. Approaches need to be made by the Co-operative at both the officials and the Member of Parliament levels.

Recommendation #4: Initial development activities for grains and oilseeds (and for the larger PEI organics sector) should focus on existing organic producers. As successes are achieved within the existing industry, they can make it much easier to convert conventional growers in increasing numbers.

Recommendation #5: Any and all strategic initiatives must recognize the fundamental importance of quality and dependability in the marketplace. Quality means all products being certified, with the objective of achieving the most demanding certification requirements such as those of the European market. Quality also means excellent packaging/presentation, freshness, branding, etc. Dependability means being a dependable supplier at all times and one that the buyer can always count on, in every situation.

Recommendation #6: A first marketing objective for the Co-operative and its members should be to serve existing, easily accessible local and regional markets. There is an opportunity for product displacement of imported organic products, and the opportunity is large. In fact, the opportunity is far larger than the limited number of Island organic producers can fully address.

Recommendation #7: To displace imported product and to develop markets further, there is a need for PEI organic producers of grains, oilseeds, and other products to work more closely together. This need can best be addressed by the Co-operative, and relates to joint marketing initiatives, jointly filling orders from buyers, co-operating on storage, transportation, and other infrastructural needs.

Recommendation #8: There is a need to develop new product development and import substitution organic opportunities, which are built on the capabilities and interests of Island organic producers (e.g. organic meats, expansion of soy processing).

Recommendation #9: The PEI Certified Organic Producers Co-operative should play the lead role in two distinct communications/marketing strategies:

1. Ongoing marketing/awareness program, through Internet, seminars, etc. directed at existing PEI organic producers and conventional producers on production and marketing information, trends, activities, etc.
2. Marketing/awareness program with PEI consumers on the benefits and availability of PEI organic products through Internet, farmer's market, and in store displays and point of purchase materials, tourism promotions, etc.

Recommendation #10: The foregoing nine steps can provide a firm foundation for the PEI organic industry to get its house in order, to replace imported product coming into the region, and to enhance the incomes and futures of organic producers, which, in turn, will entice conventional producers to convert to organic production.

Once the foregoing is secured (2-3 years), the PEI organic industry should identify a series of niche organic markets involving growing and, in most cases, processing products in PEI for export in and beyond Atlantic Canada.

Objectives

In 2003, approximately 250 acres of organic grains and 82 acres of oilseeds were grown in PEI. These are small acreages for an agricultural province like PEI, which espouses the merits of sustainable agricultural production. An ambitious, but achievable, objective should be to increase organic grains production (including in transition acreage) in PEI to 1,000 acres within three years and to increase organic soybean production to 500 acres in the same time frame.

On the value added side, there is already one soy processor in PEI, but there is room for substantial expansion of that operation and introduction of new grain processing capabilities, likely of a small scale, but important to the growth of the industry. In a three-year timeframe, a realistic objective would be to at least double the activity of the existing soy processor and add two or three new grain processing operations.

There is a substantial opportunity, both at the production and at the processing level. This is an industry in its infancy in PEI, and the next several years will be needed to take the organic grains and oilseed sector in PEI to a new plateau of growth and sustainability. When this is achieved, the scale and base will be in place for PEI to become a leader in organic grains and oilseeds.

1.0 Background of the Project

This Organic Grains and Cereal Market Research study has been undertaken by MacArthur Group Inc., during the period January – March 2004 for the Prince Edward Island Certified Organic Producers Co-operative Ltd.

The PEI Certified Organic Producers Co-operative Ltd. (the Co-operative) was incorporated in 2002. Membership is comprised of certified organic producers as well as producers in transition to organic status or owners of certified or in transition production units.

The Objectives of the Co-operative are to:

Act as a common voice for the PEI certified organic growers to government, other industries, and the public.

Represent the industry in seeking and securing funding and resources from provincial and federal agencies.

Determine and develop markets to further the organic industry's growth.

Develop and maintain a comprehensive database resource.

Promote public knowledge, awareness, and support of organic agriculture.

Preserve the environment and the rural and family farm fabric of PEI.

The Co-operative has identified the lack of market intelligence in grains and oilseeds as a limiting factor in the growth of the PEI organic industry. While organic wheat and other grains are still only a small part of total organic agriculture production, interest is growing among farmers, food processors, and retailers.

Each market for organic grains and oilseeds has unique product requirements, marketing techniques, and distribution channels. The research for this study is to identify the size of markets, determine the demand for organic grains and oilseeds in the market, establish how to best access each particular market, and assess the processing or holding capacity that may be required.

2.0 Organic Grains and Oilseeds Markets

2.1 Overview and Trends

2.1.1 General

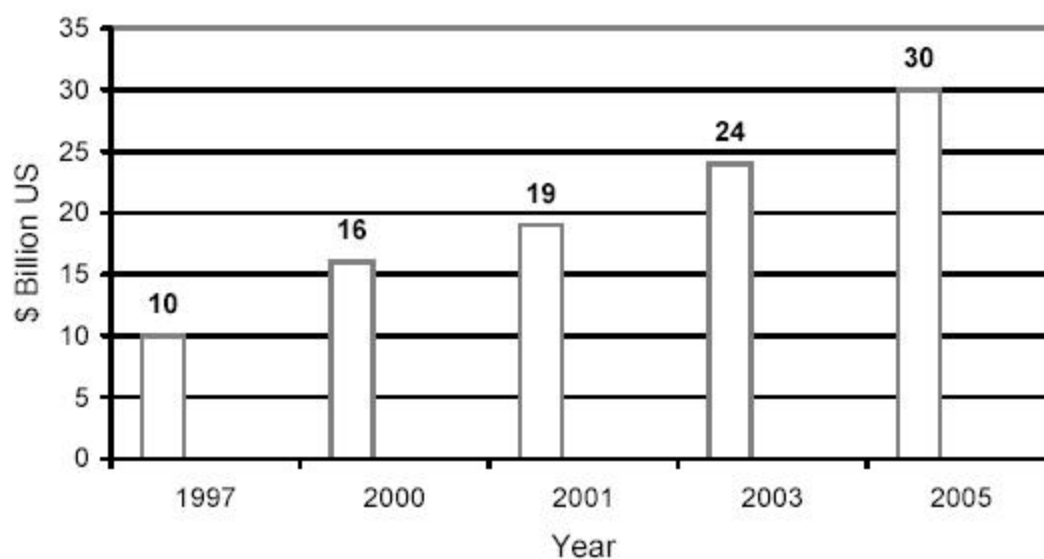
The organic market is growing in all areas. Reports from around the world (including important research done by ACORN – the Atlantic Canada Organic Regional Network) paint a picture of world growth, opportunity, and competition in the organic food sector.

Canada and USA – In ever increasing numbers, consumers are seeking what they perceive as healthful, safe food, often with the caveat that it is produced in an “environmentally friendly” way. Companies across the spectrum of the food system are working to respond quickly and accurately to these preferences.

The factors affecting Canadian food choice are, in order: taste, nutrition and health, ease of preparation, and price. The three main triggers for choosing organic foods are children, food allergies, and healthy lifestyles.

Table 1 describes the growth in organic food sales over the period 1997 – 2005:

Table 1: World Growth in Organic Food Sales (\$ Billion US)



Source: SOEL – Survey, February 2003.

Evidence that increasing numbers of consumers are attracted to organic food products is found in Table 2.

Table 2: Consumer Perceptions of Organic Foods

Perceived Attributes	2003	2002	% change
Products without pesticides	89%	78%	11%
Products without antibiotics growth hormones	83%	72%	11%
Products found in the gourmet or specialty section of the grocery store	72%	69%	3%
Products without GMO's	76%	68%	8%
Products that are fresh	71%	59%	12%
Products without irradiation	69%	59%	10%
Products grown on a small farm	57%	52%	5%
Products that have more nutrients	60%	47%	13%
Better quality products	58%	38%	20%
Better tasting products	42%	34%	8%

Source: www.foodinstitute.com (Whole Foods Market)

According to a 2001 Agriculture and Agri-Food Canada market study, the retail market for organic food in Canada at that time was worth \$300-\$750 million, with 80% of the products being imported. Forty-nine percent of organic purchases are made in mass market outlets, while 48% are made in specialty stores, and 3% are mostly made at farmers markets. Loblaws is the largest mass marketer, while Whole Foods Market Inc. and Wild Oats Markets Inc. are two large US specialty chains now in the Canadian market.

North American industry analysts expect that by 2008, organic foods will make up nearly 10% of the total retail foods market (Source: <http://www.hawiaa.org>). The growth rate of the natural and organic food business has been between 14% and 20% per year over the last seven to ten years. This compares to a growth rate for conventional or mass-market food averaging 3% - 5% per year. Peter Roy, former President of Whole Foods Market, North America's largest natural food retailer, predicts that by 2005, widespread demand for organics will lead to major changes in agribusiness.

Europe – The market for organic food in the United Kingdom is increasing by more than 21% a year, and in countries such as Denmark and Austria, sales of organic food are likely to overtake sales of conventional food within 10-15 years. In Belgium-Luxembourg, there is expected to be a ten-fold increase in the number of producers in the coming years. Germany is one of the world's largest producers and consumers of organic food products.

A number of food scares in recent years, along with ongoing concerns over the safety of genetically modified foods, have made European consumers wary about the general safety of their food and its sources. As a result, increasing numbers of consumers are seeking out healthful foods, including organic products. And, in both Europe and North America fears about genetically modified foods are on the rise. NPD Group Canada, a market research firm, found that 85% of consumers polled in a recent survey want products free of genetically modified ingredients to be labelled as such.

Asia – In China, the interest in “Green Food” is rising quickly. While people are attaching importance to a more ecologically sensitive environment, they are also attaching increased importance to healthy and nutritious food. The Japanese market for organic food continues to grow with fresh fruits and vegetables accounting for more than three-fourths of total sales. Elsewhere in Asia, total sales and growth rates have not yet taken off.

2.1.2 The Meaning of Organic

The meaning of “organic” and issues surrounding creative labelling are difficult enough in a North American setting. In offshore markets, the issues become even more complex as acceptable limits often become a matter of locally defined degrees of organic content and practice. It is important to realize that often the most important definition for the marketing of organic products tends to be the definition used in the market in which they hope to sell their product. For example, “green food” is defined in China as contamination-free, safe, high quality, and nutritious food certified by the China Green Food Development Center. Products are not strictly organic. In Japan, products are not evaluated on an “organic/non-organic scale” as in North America, but instead classified by the degree of organic farming employed.

In the case of Europe, Canadian producers of organic goods currently must have each product inspected to ensure that it complies with European Union regulations. When the criteria of the National Standard of Canada for Organic Agriculture are accepted by the EU as equivalent to EU standards, imports of Canadian products will be permitted, and more markets may open to Canadian organic food and beverage exports.

2.1.3 Quality, Packaging, and Products

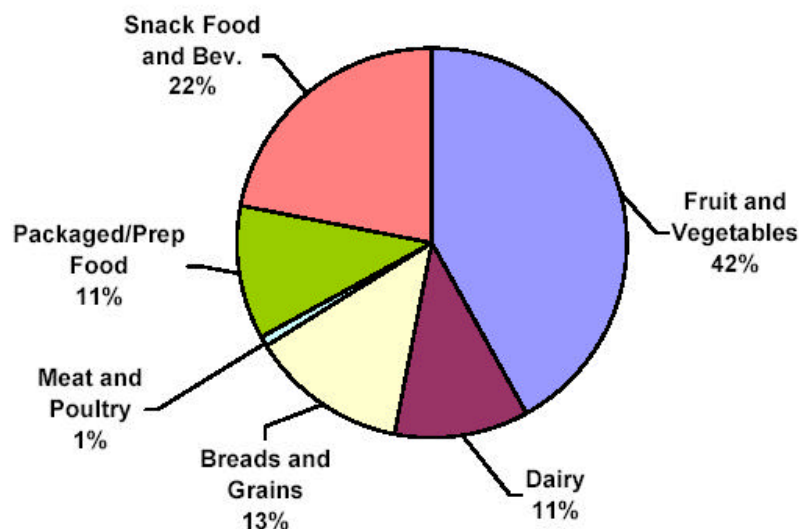
As organics have moved from the fringe to mainstream, North Americans are seeking the same quality and packaging as conventional food offers. As noted by one organic grower in the USA, *“Ten years ago, if you grew organically, you just did the best you could, threw it in a box, and that’s what*

people bought. Nowadays, we take conventional standards and apply them to organic. Same weight, same size, and no bugs."

Natural Foods Merchandiser, January 2003 Issue, notes that, "As organics move mainstream, some companies will try to differentiate themselves with additional labelling to communicate core values to consumers." And the observation is made that packaged products sold in natural food stores are much less innovative than those in the fresh foods departments. On the one hand is beautiful, upscale, expensive produce and on the other hand all the boxes of products look generic. When it comes to the grocery aisles, natural food companies have innovative products in ho-hum packaging," says Clark Driftmier, president of the Boulder (Colorado) Strategy Group. On the other hand, "Some of the high-trash index consumer packaging out there is probably not acceptable to the (organics) industry." says the President of the Sunrich Food Group of Minnesota.

Table 3: Product Distribution of US Organic Food Sales, 2001

Total = \$7.1B



Source: Nutrition Business Journal, 2003.

One innovation that could be driven by organic companies packaging their own products or partnering with companies that provide them sufficient resources is more recyclable packaging. Sunrich of Minnesota uses aseptic packages for its soymilk and poly bags for its vegetables, both of which are difficult to recycle. One positive example already evident is the packaging for

Frito-Lay's natural snacks. Instead of using high gloss, foil packaging, the product comes in paper bags, which can be easily recycled.

"Wisconsin is currently demonstrating how to raise cattle sustainably, healthily, and profitably. Recent statistics show the state now produces 22% of the nation's organic milk and ranks second in the US for acres of organic hay and silage. While conventional dairy farmers have been struggling with heavily fluctuating dairy prices, organic dairy farmers have been enjoying the quick growth of the organic dairy market."

Source: www.organicconsumers.org

Whether it's natural or concentrated, frozen category growth has been steady and will continue.

Manufacturers and marketers are moving their products closer to consumables than meal-prep ingredients. For example, companies now offer meal alternative meal kits and edamame shelled instead of in

the pod. Other trends already evident in the frozen natural department will continue as well, including more ethnic entrees and soy products, such as soy ice creams and frozen soy yogurts.

As is evidenced by Table 3 on the previous page, fresh foods have become the signature department for most natural food retailers. Dairy cases, meat, and seafood departments, as well as coffee and specialty cheese sections have witnessed more organic product

proliferation and consumer interest than anywhere else in the store.

Organic fresh-cut fruit and bagged vegetables will be more available. As

organic becomes more mainstream, purveyors will look to mimic

conventional offerings. Experts predict the biggest thing to happen in the

organic fresh foods arena will be in the

organic meat category. Green Circle Organics, which handles meat from birth to retail, has focused on secondary cuts, and created a new line of branded

products (e.g. Bourbon Pot Roast, Italian Meat Loaf) with recipes from well-known organic chef, Nora Pouillon, who is featured prominently on the

package. Says Bruce Nierenberg of Mediterranean Organics, *"...There's not much any more that a consumer can't find organic."*

"The organic beef market is exploding. Ignited by consumer concerns over Mad Cow Disease, meat irradiation, antibiotics, and synthetic hormones. The beef industry is currently witnessing a massive market shift towards organic meat. Texas ranchers are responding to the nationwide increased demand for organic beef, converting vast acreages of conventional ranches into organic production."

Source: www.organicconsumers.org

2.1.4 Atlantic Canada Organics Market

Table 4 on the following page provides the market distribution of organic food and annual expenditures in Atlantic Canada.

Table 4: Market Distribution of Organic Food and Annual Expenditures in Atlantic Canada

	Market Share Distribution	Organic Annual Expenditures	% of Total Annual Food Expenditures
Meat and Fish	1%	\$650,000	0.1%
Dairy and Eggs	11%	\$7,150,000	1.3%
Bakery and Cereals	13%	\$8,450,000	1.5%
Fruit and Nuts	21%	\$13,650,000	3.8%
Vegetables	21%	\$13,650,000	4.0%
Beverages	17%	\$11,050,000	7.0%
Other	16%	\$10,400,000	1.2%
Total	100%	\$65,000,000	

Source: Statistics Canada 2001.

As previously mentioned, it is estimated that 85%- 90% of the total organic sales in Canada are imported from the US. Small amounts are also imported from Europe. Using these assumptions, it would mean that the domestic supply of organic products in Atlantic Canada is currently about \$6.5 million annually, of the \$65 million in annual expenditures for organic food in Atlantic Canada. The opportunity for product displacement of imported organic products is obviously large.

2.1.5 Growth Prospects Canada

The following table projects estimated Canadian retail expenditures for organics to 2011.

**Table 5: Organic – Estimated Retail (\$ Millions)
for Major Food Groups**

Organic Estimated Retail (\$Millions) For Major Food Groups	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Dairy	79	97	120	147	181	217	261	313	375	450
Breads & Grains	114	139	170	207	253	294	341	395	458	532
Beverages	131	155	185	220	262	301	346	398	458	527
Snack Foods	21	25	31	38	46	55	66	79	95	114
Packaged/Prep.	96	119	148	184	228	278	339	413	504	615
Condiments	15	18	23	28	35	41	47	54	62	71
Fruit & Veg.	313	363	421	488	566	651	748	861	990	1138
Meat, Fish, Poultry	9	11	12	14	17	22	27	35	44	56
Total	778	927	1110	1326	1588	1859	2175	2548	2986	3503

Source: Canadian Natural and Organic Retail Markets. Cunningham, Rosalie, 2002, Alberta Agriculture, Food and Rural Development.

Finally, although the growth prospects for organic are excellent, the difference in price between organic and conventional products is narrowing. Table 6 provides a useful comparison of the comparative prices of various organic and conventional products across Canada on November 3, 2003:

Table 6: Organic (Org) & Conventional (Conv) Average Retail Food Prices (\$) in Four Canadian Cities, November 1, 2003

Product	Unit	Vancouver		Toronto		Montreal		Halifax	
		Org(6)*	Conv(2)*	Org(6)*	Conv(2)*	Org(6)*	Conv(2)*	Org(4)*	Conv(2)*
Cereal									
Oats ¹	kg	6.31	3.94	2.40	1.98	3.98	2.18	6.26	1.85
Pasta ²	kg	9.74	5.59	6.38	4.99	7.70	4.51	8.02	5.04
Flour ³	kg	3.21	1.73	1.53	1.83	2.41	2.19	2.11	1.28
Dairy&Eggs									
Cheese ⁴	kg	26.09	11.17	26.12	11.20	23.31	18.90	33.95	15.91
Eggs	1 doz	4.79	2.38	5.03	2.44	5.38	2.70	4.99	2.50
Milk 2%	1 L	2.84	1.91	2.64	2.19	2.58	1.34	1.74	1.58
Yogurt	750 g	4.01	3.62	3.79	2.94	3.69	2.99	3.59	2.79
Fruit									
Apples	kg	4.14	3.51	3.64	2.29	4.49	1.84	4.23	3.06
Meats									
Chicken ⁵	kg	10.90	5.93	5.98	4.74	10.54	5.57	NA	4.94
Hamburger	kg	12.25	7.81	NA	6.54	22.19	6.61	NA	6.22
Port Chops	kg	NA	9.68	NA	9.49	21.39	11.55	NA	8.76
Vegetables									
Beans ⁶	kg	4.79	4.39	10.98	6.60	12.81	6.04	NA	5.49
Carrots	kg	2.93	1.57	2.21	1.37	2.74	0.93	3.31	0.72
Cucumber	each	5.94	0.92	3.39	2.25	4.24	2.34	4.41	0.89
Lettuce ⁷	each	2.11	1.79	2.21	1.74	1.85	2.04	2.49	1.48
Onions ⁸	kg	3.40	1.42	3.30	2.51	2.53	1.26	2.52	0.99
Pepper ⁹	kg	4.58	4.06	7.99	3.28	4.70	3.18	6.59	1.99
Potatoes ¹⁰	kg	2.20	1.96	2.48	2.18	2.41	1.85	3.84	1.75
Tomatoes ¹¹	kg	8.57	4.94	10.61	3.84	7.31	5.49	2.98	4.39
Zucchini	kg	6.37	2.18	6.22	3.28	6.61	3.30	6.59	2.67
¹ Oats for cooking		⁴ Cheddar		⁷ Romaine		⁰ White			
² Whole wheat spaghetti		⁵ Whole Bird		⁸ Yellow		¹ Red			
³ Whole wheat		⁶ String		⁹ Green		*Number of Retail Stores Surveyed			

Source: Organic Agriculture of Canada, Market Report.

2.2 Grains and Oilseeds

2.2.1 Overview

As a result of increased consumer demand, improved marketing techniques, and current low prices for conventional grains, production of organic crops is expanding across Canada. According to Agriculture and Agri Food Canada's Bi-weekly Bulletin, the recent introduction of international and national guidelines regulating the production and marketing of organic foods is expected to increase consumer confidence, leading in turn to higher demand and prices for organic grains and oilseeds.

In Canada, total annual production of organic grains and oilseeds is estimated to be about 140,000 tonnes, valued at \$400-\$500 million, compared to conventional grain and oilseed production of 62 million metric tonnes. Organic grain production is concentrated in Western Canada, with wheat, including durum, contributing one-half of total organic grain. Wheat, excluding durum, is the largest crop, while durum and rye are the second largest crops and roughly equal in output. Buckwheat production is small and is increasing at a relatively slow pace.

Oilseeds make up only 10-20% of total organic production due to problems with weeds and disease, combined with a lack of organic crushing facilities. The major organic oilseeds are flax, canola, and sunflowers. Legume production is relatively small in comparison with other crops.

Europe is a net importer of grains and oilseeds, with the majority originating from the USA and Canada. There is considerable European north-south cross border trade with grains going south and vegetables going north. In particular, France and the Netherlands are major exporters, while the UK and Germany are dominant importers.

North America is considered a relatively unpolluted environment and an ideal source of organic foodstuffs. The USA is a net exporter of organic bulk grains, organic soybeans, and processed organic products to Europe and Japan.

The majority of Canadian organic grain and oilseed production is exported, primarily to the EU, USA, and Japan. Wheat is the dominant export at 15,000 tonnes in 2000. About half of the organic wheat is sold to Europe with the remainder evenly divided between the USA and Japan. USA is the major market for the remaining exported organic grains and oilseeds.

Domestic consumption of organic grains and oilseeds is centered in Central Canada, often involving shipment from Western Canada to processing and milling plants in Ontario and Quebec. However, the capacity for handling organic grains is increasing in Western Canada with the use of containers and better marketing techniques.

Over the medium term, Agriculture and Agri Food Canada (AAFC) in 2000 projected that Canadian farm area seeded to organic crops could increase 500%. AAFC notes that by 2005, the organic industry is anticipating that their market share will increase to 10% of the Canadian retail market, and that organic bulk and value-added products currently represent one alternative to conventional farming.

The introduction of the National Standard of Canada for Organic Agriculture and the recognition of the Canadian accreditation system by Canada's major trade partners are expected to result in stronger exports of organic grains and oilseeds over the medium term. Consumer demand is also expected to grow substantially in world markets for grains and oilseeds.

2.2.2 Trends

2.2.2.1 Grains

There are major growth opportunities for organically grown grain, with the market for bulk organic feeds projected to grow by a factor of ten over the next few years, if enough product is available. And there appears to be even more opportunity on the export level to Europe, USA, and Latin America.

This feed market is growing quickly, because consumers increasingly want meat and animal products that:

taste great,

are locally raised,

come from animals raised in humane management systems,

come from animals raised in systems that are ecologically sustainable,

are produced on small family farms, rather than in "factory" farms,

are unique, are healthy, and

are raised without antibiotics, genetically modified organisms, or growth hormones.

A recent Northeast USA Feed Grains Survey asked farmers to estimate the number of tons of organic feed grains they will purchase in 2002, 2003, and 2004 (Table 7 below). Overall, 152 respondents projected purchases of 17,522 tons in 2002; 150 respondents projected 20,936 tons in 2003; and 145 respondents projected 22,748 tons in 2004. Although the different number of respondents for each year complicates the picture somewhat, this indicates an increase in purchases of at least 30% over two years. However, this increase largely reflects the plans of one very large farm, which is projecting a major expansion of its organic feed grain purchases. Without this expansion, there would still be a 13% increase in purchases from survey respondents (from 17,522 tons to 19,748 tons).

Table 7: Projected purchases* of organic feed grains 2002-2004.

	2002 Purchases			2003 Purchases			2004 Purchases		
	N	Average tons/farm	Total tons	N	Average tons/farm	Total tons	N	Average tons/farm	Total tons
Produce organic feed grains	44	98	4326	43	131	5636	42	181	7592
Do not produce organic feed grains	108	122	13196	107	143	15300	103	147	15156
Total	152	110	17522	150	137	20936	145	164	22748

*Among the 159 farmer respondents who do purchase organic feed grains.

Here in the Atlantic region, the organic meat industry is in its infancy. However, it is noted that there is great potential for organic beef, pork, and other meat products, including pasture raised organic chicken. Chicken is easy to grow, easy to handle, has a quick turnover, and is popular with the consumer. Bianca International Organics of Montreal advises that the organic feed products for which demand is increasing are yellow peas, soybeans, and barley.

Consumer food markets for organic grain products are also growing quickly, including the following:

Organic breakfast products, including ready-to-eat cereals and breakfast bars.

Organic breads (including new products such as organically produced bannock bread) and baked goods, including yeast-free organic products used in a wide variety of baked goods.

Snack foods are a large category of future opportunity. More than 80% of Canadians snack every day and 65% have stated they would rather snack on healthy foods. There are as yet very few organic grain products in this category.

Central Canadian buyers advise that demand is high, particularly for spelt. Other cereals in demand (according to La Meunerie Milanais of Montreal) include hard red spring wheat, rye, buckwheat, and soft and hard winter wheat.

2.2.2.2 Oilseeds

Soy and soy products are recognized as health products and meat substitutes. The benefits of soy, which is a dietary staple among people of Asian origin and has been recognized by vegetarians for many years, are becoming increasingly well known in the marketplace.

Experts estimate that the consumption of soy-based foods has risen over 400% in the last 20 years. More than US\$2.5-billion in soy-based products were sold in the USA in 2000. Industry specialists predict that demand for these products will grow by 15% to 30% per year in the next five years.

Soy-based products are also benefiting from another set of circumstances. Because soy protein is a recognized meat substitute, recent incidents relating to red meat have brought the safety of soy foods to the fore. Mad cow disease, scrapie, and other problems have severely shaken consumers' confidence, encouraging them to purchase soy products.

Soy and rice beverages are a key segment of the consumer market for soy products and include four main segments: lactose-intolerant/allergic consumers; consumers of Asian origins; people concerned about what they eat, who believe that consuming soy beverages and cereals has health benefits; and vegetarians. In Canada, there has been a strong increase in sales of soy and rice beverages in recent years as follows:

- o March 97 to March 98: \$12 million
- o March 98 to March 99: \$21 million (75% growth)
- o March 99 to March 2000: \$38 million (80% growth)
- o March 2000 to March 2001: \$52 million (37% growth)

Most popular items are: soymilk, tofu, ice creams, puddings, cheeses, yogurt, and pasta. Although many companies produce some of these products, the majority is not organic. However, Bianca International Organics finds demand strong for organic soybeans in the Canadian market.

3.0 Production

3.1 Overview

Organic agriculture production is growing rapidly in many areas of the world, as evidenced by organic production in Denmark.

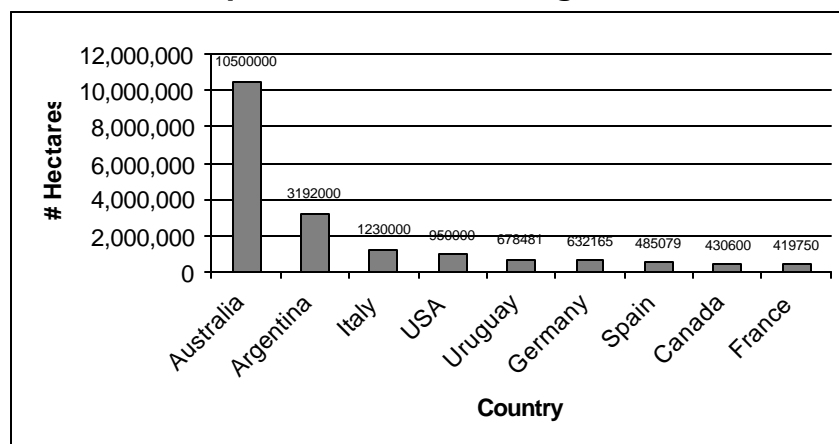
Table 8: Number of Certified Organic Holdings in Denmark

Year	Organic Production Area (ha)	Organic Holdings #
1989	12,500	250
1990	14,000	475
1991	15,000	500
1992	17,500	750
1993	20,000	750
1994	22,500	725
1995	45,000	750
1996	4,900	1,200
1997	68,500	1,700
1998	85,000	2,250
1999	149,000	3,250
2000	167,500	3,350
2001	175,000	3,500

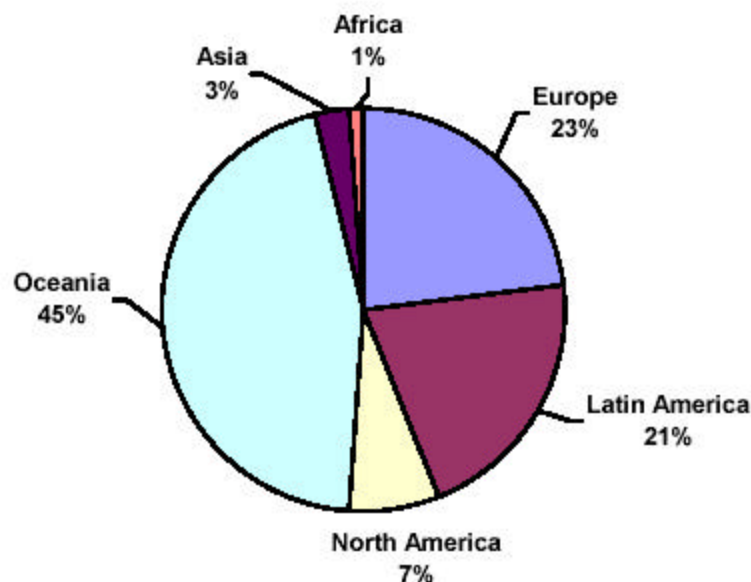
Source: Facts & Figures, Agriculture in Denmark 2002, Danish Agricultural Council.

The following three tables are useful in understanding the place of organic agriculture internationally.

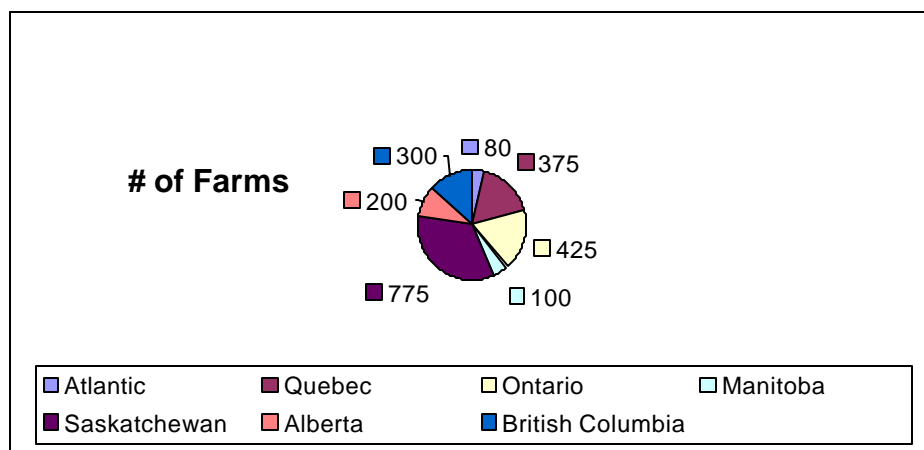
Table 9: Top 10 Countries in Organic Land Area



Source: SOEL-Survey, February 2003.

Table 10: Organic Farms as a % of Total Farms by Continent

Source: SOEL-Survey, February 2003.

Table 11: Canadian Organic Production, 2001

A recent Survey of Organic Feed Grain Supply in the Northeast Region of the USA asked producers in the region (i.e. all of New England plus Delaware, New Jersey, New York, Pennsylvania) to estimate the acres of each crop they will plant in 2003 and 2004 for the purpose of feed grain production (see Table 12 following). The projected increase of 44% between 2002 and 2004 (an increase from 6,453 acres to 9,309 acres) exceeds the 1,302 acres respondents reported being in transition to organic production. Presumably their intention is to use land currently organically certified for the production

of other crops or pasture, or to rent additional certifiable land to expand grain production.

Table 12: Projected Organic Feed Grain Acreage by Crop, 2002-2004.

Grain	2002			2004			2004		
	N	Total acres	Average acres	N	Total acres	Average acres	N	Total acres	Average acres
Corn	52	2,024	38.9	56	2,647	47.3	56	2,694	48.1
Soybeans	28	1,260	45.0	38	1,931	52.2	36	1,923	54.9
Oats	26	626	24.1	28	906	32.3	28	912	32.6
Wheat	21	793	37.8	26	1,285	49.4	28	1,317	47.0
Rye	14	270	19.3	15	201	13.4	15	250	16.6
Triticale	4	156	39.0	7	198	28.2	5	148	29.6
Spelt	16	583	36.4	18	700	41.2	19	785	43.6
Barley	24	621	25.9	27	1,006	38.7	27	963	37.0
Other	5	120	24.0	11	627	57.0	9	317	35.2
Total	75	6,453	86	73	9,501	130.1	72	9,309	129.3

Average acres per farm in the Northeast USA devoted to organic feed grain production is projected to increase from 86.0 acres in 2002 to 129.3 acres in 2004, a 50% increase. Interestingly, these increases are projected to take place between 2002-2003, while acreage is projected to hold steady between 2003-2004. Note also that these projections are based solely on the sample of established feed grain producers, and do not account for the entry of new feed grain producers in 2003 and 2004.

In the same Northeast Region Survey, organic feed grain producers were asked: "Please describe any specific challenges you face or anticipate over the next 2-3 years in producing or marketing your organic feed grain crops, or in fulfilling your own livestock's requirements for organic feeds." Fifty-six producers responded with comments, which are summarized in Table 13 on the following page.

Table 13: Producers: Challenges in Producing or Marketing Organic Feed Grains

Type of Challenge	Number reporting
Supply challenges	5
Price of organic feed grains (4)	
Availability of organic feed grains (1)	
Marketing challenges	8
Finding good buyers (6)	
Other (2)	
Production challenges	30
Weather (12)	
Weeds (11)	
Availability of land (5)	
Finding/paying for certified seed (5)	
Soil fertility (3)	
Storage facilities (3)	
Other (7)	

3.2 Atlantic Canada

The following table summarizes key organic statistics for the four Atlantic Provinces in 2003. Additional detail can be found in Appendix 1.

Table 14: 2003 Atlantic Canada Organic Agriculture Activity Summary

	PEI	N.S.	N.B.	Nfld.	Total
# of organic producers	23	45	31	3	102
Plus number in transition	5	1	2	-	8
# of processors	2	13	14	-	29
Total Acreage	1,616	1,022	2,114	-	4,752
Total producer sales	\$ 590,000	\$ 807,500	\$ 475,000	\$ 92,500	\$ 1,965,000
Total processor sales	\$ 120,000	\$ 1,857,139	\$ 1,075,000	-	\$ 3,052,139
Milling wheat (acres)	117	-	27	-	144
Oats (acres)	50	3	20	-	73
Spelt (acres)	39	6	5	-	50
Other spring grains (acres)	47	83	45	-	175
Soy beans (acres)	82	-	-	-	82
Cattle (head)	50	140	97	-	287
Poultry/eggs (layers)	-	350	400	-	750
Sheep	-	50	-	-	50
Pigs	-	11	-	-	11

Source: MacArthur Group Inc., derived from 2003 Certified Organic Statistics, Summary of Atlantic Region.

3.3 Growing Considerations

In the publication, *Organic Cash Cropping – Cereals and Soybeans*, the author, Roger Henry, P.Ag., makes the following observations about growing cereals and oilseeds.

The type of land available will determine the type of crops to be grown, with flat, fertile, sheltered, well-drained land preferred.

Production of organic cereals and cash crops differs significantly from conventional production methods and should be attempted on a small scale at first, as there is a significant learning curve associated with such practices.

All farmland that has been conventionally farmed will have to go through a three-year transition period before the land can be certified for organic production. During this period, only organic techniques can be used.

Ideally, a producer will convert the farm to organic production over a four to seven year period. During the transition period, it is wise to try various combinations of crops and cover crops with the goal of developing a crop rotation(s) that suit the farm.

Crop rotation development takes much more time and experience in an organic system, compared to a conventional system, as the farmer has to develop a system of crops and cover crops so that each leaves the field in conditions favourable to the next crop.

Cash cropping systems are often lacking in soil fertility. In order to achieve necessary yields, a source of fertility will be required, such as compost, plow down crops and straw, crab meal, potassium sulphate, other products from the sea such as kelp and waste products from the fishery, animal manures from local farmers, and other nutrients.

There will be many challenges that are not such concerns in conventional farming, and other growers and specialists can be a major source of information and support. Specific challenges include weed control, pests, and weather.

Another challenge is addressed in the publication "*10 Strategies to Minimize Risk of GMO Contamination*" by James A. Riddle, They include:

1. Know your seeds.
2. Know your farm.

3. Know your neighbours.
4. Know your neighbour's crop.
5. Know your equipment.
6. Know your harvest.
7. Know your crop storage.
8. Know your truckers.
9. Know your records.
10. Know your buyers.

3.4 Yields and Economic Returns

In the late 1990s, the Rodale Institute of Kutztown, Pennsylvania, completed a 15-year study comparing organic agricultural methods to conventional methods. Its findings showed that organic yields equalled conventional yields after four years. *(Note: Many producers would disagree with this conclusion.)* The study also found that in organic farming, the quality of the soil continues to improve; carbon dioxide emissions are reduced; and that in periods of draught, organic fields can actually out yield conventional plots. Experts have also shown that pesticide use does not guarantee increased yields.

In Lincoln, New Zealand, results from the Kowai organic farm reported green-bean yields 21% higher than an average conventionally grown crop, while peas, buckwheat, and linseed had average or just below average crops. The farm was set up as a collaboration between the Heinz-Wattie food company and Lincoln University to show farmers that a commercial organic cropping system can work. Says Heinz-Wattie's agricultural systems manager, *"The assumption that (organic) yields are lower than conventional is not a rule. If we do everything right, there's no reason why yields can't be as good or better."*

The Survey of Organic Feed Grain Supply in the Northeast USA region asked producers to report their yields in bushels per acre. There is a large variation in yields among organic feed grain producers who responded to the survey, as is evidenced in Table 15 on following page.

Table 15: Reported Organic Yields by Crop, 2002.

Grain	Number of producers	Average bu/acre	Median bu/acre	St deviation bu/acre	Lowest bu/acre	Highest bu/acre
Corn	33	98.5	100	43.3	20	200
Soy	19	32.5	30	12.1	10	60
Oats	21	59.1	64	23.8	10	90
Wheat	17	47.7	50	13.9	25	70
Rye	9	36.2	38	9.7	20	50
Triticale	3	54.0	60	12.2	40	62
Spelt	14	75.4	78	21.2	40	109
Barley	14	48.4	49	19.8	10	80
Total N	57	NA	NA	NA	NA	NA

Source: Survey of Organic Feed Grain Supply in the Northeast Region.

For organic production to be economically viable, premiums are often required to compensate producers for the loss in yields due to the abandonment of conventional pesticides and fertilizers and for the three-year conversion period where yield declines are typical. Over the long run, the sustainability of organic production is dependent on the profitability of the rotation compared to growing conventional crops. Producers contemplating switching into producing organic grains and oilseeds should prepare a set of crop budgets over several years before switching. The following set of budgets based on Agriculture and Agri-Food Canada forecasts data for 2000-2001 compares the profitability of a 10-year organic crop rotation versus conventional crops. The budgets include yield and price data for organic crops collected from Saskatchewan Agriculture and Food and the University of Manitoba. These budgets indicate the profitability of growing conventional versus organic grains and oilseed crops for a particular location. Prices, yields, and profitability will vary from farm to farm due to a variety of agronomic, economic, and management factors.

Table 16
Crop Rotation Returns: Organic Versus Conventional

Saskatchewan (Black Soil Zone)						
	2 DWRS Wheat		Flaxseed		Peas	
	Organic	Conventional	Organic	Conventional	Organic	Conventional
Incomes						
Projected Price	156	120	275	183	210	140
Yield	1.48	2.05	0.7	1.3	1.15	1.95
Projected Revenue (\$/ha)	231	246	193	238	242	273
.....dollars per hectare.....						
Operating Costs						
Seed	20	15	18	12	60	40
Fertilizer	0	53	0	53	0	27
Pesticide	0	68	0	67	0	70
Crop Insurance	10	8	16	11	12	8
Fuel and Repairs	46	40	53	46	58	50
Other	12	15	12	15	12	15
Total Operating Costs	88	199	99	204	142	210
Net Income(Loss)	143	47	94	34	100	63

Agriculture and Agri-Food Canada, March 2000 forecast. Prices for organic crops are conservatively estimated to be 130% for wheat and 150% for flax and peas of conventional crops, based on insured price premiums by Saskatchewan Crop Insurance. Current price premiums available, 300% for flax, 225% for peas, and 175% for wheat. Estimated yields: conventional, AAFC forecast, organic wheat, flax and peas are 72%, 54% and 59% of conventional.

Source: Agriculture & Agri-Food Canada, Univ. of Saskatchewan, & Saskatchewan Crop Ins.

Table 17

Year	Crop	ORGANIC ROTATION RETURNS					CONVENTIONAL ROTATION RETURNS					
		Operating Income					Operating					
		Yield	Price	Revenue	Costs	(Loss)	Crop	Yield	Price	Revenue	Costs	Income
	(t/ha)		(Cdn\$/ha).....			(t/ha)	(Cdn\$/ha).....			
1	Clover	0	0	0	55	-55	Wheat	2.05	120	246	199	47
2	Clover	0	0	0	55	-55	Canola	1.25	220	275	230	45
3	Clover	0	0	0	55	-55	Barley	3.00	85	255	180	75
4	Flax	0.7	275	193	99	94	Peas	1.95	140	273	210	63
5	Peas	1.15	210	242	142	100	Wheat	2.05	120	246	199	47
6	Wheat	1.48	158	231	88	143	Canola	1.25	220	275	230	45
7	Clover	0	0	0	55	-55	Oats	2.35	70	164	162	2
8	Flax	0.70	275	193	99	94	Wheat	2.05	120	246	199	47
9	Peas	1.15	210	242	142	100	Canola	1.25	220	275	230	45
10	Wheat	1.48	458	231	88	143	Barley	3.00	85	255	180	75
	Total (including conversion period)				454							491
	Total (excluding conversion period)				584							399

For organic crops, prices and yields have been adjusted as per crop budgets. The rotational mix was provided by the University of Saskatchewan. Prices and yields were derived from conventional crop forecast by AAFC. For the conventional rotation, data were forecast by AAFC based on an 800-acre benchmark farm in Saskatchewan Black Soil Zone, to provide a hypothetical comparison. Results may vary from location to location due to numerous agronomic, economic, and management factors.

Source: Agriculture & Agri-Food Canada, Univ. of Saskatchewan, & Saskatchewan Crop Ins.

3.5 Quality

The Eco Farm & Garden Fall 2001 issue included an article, "Growing high quality organic grains and soybeans for the Canadian processing market" by Vijay Cuddeford, in which the following points are made:

Traditionally, the quality of wheat is captured by characteristics such as protein level, bushel weight (density), and Hagberg falling number (the higher the falling number, the better the bread will hold together). These grading criteria do not vary between conventional and organic products. However, organic products that meet the same criteria receive a much higher premium. Quality requirements for wheat will also vary depending on the end use, with bread quality wheat, pastry wheat, kosher bread wheat, and feed grade wheat all varying in protein levels and other characteristics.

If your goal is to provide the consumer with superior flavour and aroma, you need to be concerned, not primarily with the protein content or falling number (though these are important), but also with the quality of both the amino acid and the gluten. These are both influenced by growing practices which affect soil quality, soil temperature and moisture levels. La Meunerie Milanaise is involved with the Quebec Ministry of Agriculture in a research program which studies the impact of fertilization, crop rotation, and other agronomic practices on grain quality. The study is linked with research efforts in France.

For criteria such as flavour and aroma, variety might be the critical factor. Stu Fleishhaker of Speerville Mills in New Brunswick plants small amounts of a few different heritage wheats. Because these varieties have not been developed in the high-input regime common for commercial varieties, they may have better flavour and aroma. At some point, it may be possible to market wheat by variety.

According to Neil Strayer of Growers International, there is a direct correlation between following recommended practices (with some leeway for individual microclimates) and the quality of the product. He says that he can tell early in the season who will have the best quality product. One key in wheat production is to avoid weathering of the crop, which causes presprouting and lowers the falling number. It's important, therefore, to combine the crop early. If it's damp, don't delay the harvest until it dries. Harvest as soon as it is ready, and immediately aerate and dry the grain.

Another key, especially in the semi-arid prairies, is maintaining soil fertility. Complex rotations which include oilseeds, pulses, cereal and green manure crops, are required for a good product.

For organic soybean production, several management practices are crucial. As always, soil quality is the prime determinant of crop quality, and the soil must have adequate levels of available nitrogen to produce high protein beans.

A well-designed crop rotation is essential to control weeds and pests while maintaining soil fertility. Mix warm-season (corn, soybeans) and cool-season (small grains, canola) crops in the rotation. Include a perennial crop, such as a 2-4 year hay crop that is cut and harvested a few times per year.

The difference between No. 1 and No. 2 grades is largely appearance, particularly staining. Most staining results from the thick moist stems of weeds splattering during combining. Also, combining at night causes a combination of dew and dust to stain soybeans. This can cause No. 2 grade beans to be demoted to feed grade.

If you want to sell your product to processors, it's important to pay attention to variety and seed quality. When choosing a variety, think about the strengths and limitations of your farm, as well as the market. What varieties do buyers want? While it is a good idea to grow several varieties, some buyers may require variety purity.

In soybeans, the percentage of dark hilums may increase; for wheat, average protein levels may decrease. Soybean varieties for the processing market should have protein levels greater than 40%, resistance to splitting and true yellow hilums. Dark hilums, even just 5% in a load, will cause the whole lot to be sold as feed.

Moisture content is a critical component of crop quality, affecting storage, flavour, aroma, and other culinary qualities. High levels of moisture result in deterioration in storage, growth of mould, and the development of toxins and rancidity.

In Atlantic Canada, most grain is harvested in damp conditions. This necessitates on-farm storage which blows air through the grain to achieve good drying. This is even more important when there is a high percentage of dockage.

3.6 Contracting Considerations

Production contracts for grain and soy growers will frequently have these features:

Declaration of acceptable certification entity

Quantity based on metric tonnes, tons, bushels, or acres grown

Price

Place of delivery

Declaration of acceptable seed

Earliest/Latest planting dates

Schedule of delivery dates and/or "delivery when called" clause

NOTE: If a product is being stored on-farm without a definite delivery date, it is recommended that the producer should work toward negotiating an agreement that at least rewards cost of money, cost of storage, and the additional risk factor of spoilage beyond date of harvest.

Discount schedule based on quality standards more rigid than present conventional grain standards. Producer should assume any deliveries even slightly below standard may be refused per contract terms.

Penalty clause for non-performance

Escape clause for processor that includes the right to refuse any delivery based on any commercially objectionable aspect of the product regardless of whether that particular quality is outlined in the contract.

Direct contracts with organic processors are very likely to be unique from those of other processors, perhaps unique from those offered to other growers, and almost surely different from any other agreement the producer may have previously entered into for the sales of products direct from the farm. *Read and understand everything before signing.*

4.0 PEI Situation

4.1 Production

The Atlantic region, including PEI, is lagging behind the rest of the country in the expansion of organic production. The following two tables provide 2003 Certified Organic Statistics for PEI.

Table 18: 2003 Certified Organic Production Statistics – Prince Edward Island

Producers – 28 (includes 5 in transition)
Processors – 2

Total acreage – 1,616 acres
Total sales - \$685,000

Product category/ (# of Producers)	Acres	Total Production	Direct to Consumer (%)	Wholesalers, Retail & Restaurants (%)	Processing/ Value-added (%)
Mixed vegetables (13)	11	66,000 lb	100		
Cole crops	12.5	106,000 lb	6	94	
Herbs/medicinal (6)	6		10	70	20
Small fruit (4)	2.4		100		
Potatoes (7)	87	1,913,950 lb	14	86	
Soybeans (4)	82	106,000 lb		53	47
Milling Wheat (5)	117	107,100 lb			100
Oats (1)	50	55,000 lb			100
Spelt (4)	39	76,600 lb			100
Spring grains (4)	47	94,000 lb			100
Cattle (1)	50 head	32 head	100		
Pasture/hay (6)	408		100		
Other - specify	edible flowers -1 flowers -1 (1Ac) Greenhouse veg -1		100 100 100		
Pulse (beans,lentils)	1				

Sales	# of Operations	Total Sales	% of Producers
Less than \$5,000	8	\$20,000	33%
\$5-10,000	4	\$30,000	15%
\$10-15,000	3	\$37,000	12.5%
\$15-20,000	2	\$35,000	8%
\$20-30,000	0	-	-
\$30-40,000	3	\$70,000	12.5%
\$40-60,000	0	-	-
More than \$80,000	5	\$492,500	20%
TOTAL		\$684,500	

Source: Atlantic Canada Organic Regional Network

MacArthur Group reviewed various secondary research sources and surveyed a number of PEI organic producers resulting in the following information:

Organic cereal production is presently very limited in PEI. There are a few producers who grow organic feed grain for their own use, a small acreage is grown to supply regional mills and bakeries, and a small tonnage of soybeans is being grown for a local tofu business, as well as for periodic export.

Milling wheat, used to produce flour, is attracting more attention from PEI growers (both conventional and organic) looking for a higher value crop. There are currently between three to four thousand acres produced on the Island annually, with most of the crop marketed to Dover Mills in Halifax. Some is also shipped to the Speerville organic mill in New Brunswick.

Note: Dover Mills has indicated to the consultant that they may start handling organic product in the near future.

Most of the crop is sold through PEI Grain Elevators Corporation, which stores the crop and ships it in bulk to Dover as needed, usually two to three hundred tonne at a time. The Elevators Corporation is working with the Island Grain and Protein Council to promote more production in the province.

There has been some discussion of locating a mill in PEI. This would lower transportation and handling costs, and it is estimated it would mean an extra \$20-\$25 a tonne to growers.

It is estimated that an organic flourmill could provide an outlet for at least 14,000 acres of milling wheat that could be grown in PEI. An additional 7,200 acres or more of other organic grains and soybeans could be required for the mill. There is little doubt that milling quality wheat can be grown in organic conditions in the province. Also, a new variety of winter wheat, with strong baking characteristics, has emerged and is offered for sale under the name AC Sampson.

The three systems currently used to produce beef in this region are: feedlot with total confinement; pasture feeding with some grain supplementation; and pasture feeding only. The accessibility and cost of organic feed within the Maritimes is a major consideration when choosing to produce or purchase a portion or all of the feed for organic meat production. The feedlot system is contrary to organic production principles, and organic inputs are not currently available at a price to make this production system viable. Pasture feeding with grain supplement involves the cattle to be finished being fed some grain

(usually barley and/or oats) prior to slaughter. Provided all feeds and the production methods are certified as organic, the meat will qualify as organic beef.

If the producer chooses a system requiring grain in the ration, then it is important to secure a source of organic grain. The accessibility of organic cereals is currently a real challenge in PEI.

In 2001, Master Feeds in Kensington, PEI, for a period of time became certified to handle and make organic feed. The organic grains used in their rations came mainly from Ontario. This was costly and made the production of a ration using significant amounts of organic barley unprofitable for the beef producer.

4.2 Market

4.2.1 Speerville Mills

The Speerville Flour Mill in New Brunswick has been in operation for 22 years. Started by Stu Fleischhaker, the cooperatively run mill is now owned by three individuals (not including Fleischhaker). It is unique in that it contracts Maritime farms to grow organic grain, which is milled at a Maritime plant and sold to Maritime consumers in various forms.

Speerville has growers in Prince Edward Island, the Annapolis Valley of Nova Scotia, and the greater Moncton region of New Brunswick. Current manager and part owner Todd Grant gives the farmers a rough projection of what he will need and they plant accordingly.

The plant mills and sells a full line of cereal products using wheat, oats, rye, spelt, buckwheat, and lesser amounts of other crops. Their market for organic products has grown at a rate of 30% annually in recent years. They prefer to purchase locally grown certified grain but cannot at present supply their need with local product and are importing from Upper Canada.

Speerville Mills processes and distributes flour grains, including spelt, oats, winter soft wheat, rye, and hulless barley. Other products in demand are sunflower seeds, lentils, split peas, and certified herbs. They purchase 50-80 tonnes from Island growers currently and 75% of products are organic. They buy grain year round in small amounts, with total purchase annually being: 95-100 tonnes of wheat, 60-75 tonnes of oats, 30 tonnes of rye, and 40-50 tonnes of spelt. They will not dry grain if less than five tonnes. Prices are stable, with approximate buying prices being \$400 per tonne for wheat, \$500

per tonne for spelt, \$300-\$400 per tonne for rye, depending on quality, and \$350 per tonne for oats.

Although Speerville Mills is not dealing in soybeans now, they will be looking at processing soybeans in the fall. They see an opportunity and will be looking for suppliers. Speerville is also interested in distributing (they now work with Sobeyes, Superstore, and other Atlantic Canada retailers) other processed products for Island farmers.

4.2.2 Pioneer Organics

Pioneer Organics, Waterville, NS, is involved in organic crop inputs such as fertilizer. The firm also grows organic greenhouse vegetables, and they produced various grains but discontinued two years ago. Master Feeds of Kensington did their crushing and mixing for livestock feed.

Pioneer Organics tried to export products but had difficulties filling minimum orders. Needed to be able to fill 30 tonne capacity tractor-trailers with grain, but farmers were not able to supply sufficient volumes. In order to fill a truck, Pioneer had to get grains from here and there (often only a few bags at a time), and this meant mixing lower quality grains with higher quality grains, resulting in lower sale prices. Also, in order to export grain, farmers have to be federally inspected and this takes time and money.

Pioneer Organics did not find the grains and oilseeds business sustainable in Atlantic Canada because of the lack of suppliers and product. An additional barrier is shipping costs because export markets are far away.

4.2.3 Co-op Atlantic

Co-op Atlantic in Moncton, NB, buys for Co-op livestock feed mills in Atlantic Canada. Supply is limited in Atlantic Canada due to small number of producers who are certified organic. Demand from their mills is for layer feeds, hog feeds, and turkey feeds. A major problem is that some feeds require 10-12 ingredients, and each ingredient must be certified organic. Co-op Atlantic is developing a new price list and, in the meantime, suggests producers use Homestead Organics price list (See Section 4.2.11 of this report.)

4.2.4 Valley Flax Flour Ltd.

Valley Flaxflour Ltd. in Middleton, NS, processes flax seed into flour. The company expects to become organic in two to three years, depending on

demand. Most of the flax product is bought from Manitoba, but they would prefer to buy locally to reduce costs.

4.2.5 Bakeries

Local organic bakers within the region are purchasing certified cereals and often are required to import their needs, as local supply is unavailable. The small bakeries generally do not have much storage space for grain and prefer to purchase smaller tonnages. When they import such amounts the cost is very high due to transportation costs to haul partial tonnages from Ontario.

4.2.6 Atlantic Superstores

Atlantic Superstores foresee excellent growth in the organic food market in the Atlantic region. Although customers usually say they want to buy local; if quality and price are not consistent with other sources, they won't buy. The most popular organic products are produce and they mirror items in demand under conventional farming (e.g. bananas, potatoes, grapes). For packaged products, organic items such as coffee, tea, snacks, cereal, dairy products, and frozen foods are popular. Everything has to be certified organic.

To sell to Atlantic Superstores, it is useful to start by making a product presentation to the Merchandising Management at the Dartmouth office. If there is potential, the process gets transferred to the Toronto head office. The presentation must include product features, costs, methods of distribution, proposed selling price, marketing plans, etc. Also, it is helpful to advise of shelf life and temperature control considerations. Fresh items must be in proper packaging or containers at the proper temperature. Although Atlantic Superstores prefer that items be delivered to their central warehouse, they will consider direct to store delivery (DSD) based on the quantities and frequencies required to meet demand.

4.2.7 Sobeys Stores

Sobeys's West Royalty store sells the following organic products: carrots, mini-carrots, broccoli, romaine hearts, cauliflower, celery hearts, iceberg lettuce, turnips, onions, tomatoes, apples, grapefruit, kiwi, oranges, bananas, and potatoes. Other products include a wide variety of soy products (milk, tofu, etc.), cereals, baking mixes, cornmeal, granola, and flours. Organic products from PEI include potatoes (Kentdale Farms) and tofu (Maritime Soy Craft). All products must be certified in order to be sold in the store.

The store used to make great effort to support local producers but found that they were unable to keep up a consistent supply. According to local staff, all products purchased must be shipped to the Stellarton, NS, warehouse, including PEI products, before being shipped back to the PEI store. Local staff say it could make sense to purchase more local products because buying internationally (most of their purchases are from the USA) requires a minimum order, so stores often end up with a lot of wasted product.

The Sobeys, Stellarton, NS, person responsible for purchasing for the organic flours and baking goods products says their only Maritime organic supplier is Speerville Mills. Many products come in from Western Canada. The most popular organic product sold in Sobeys' bakeries is white flour. Sobeys would support more local companies if assured supply was there and, contrary to the Charlottetown store spokesperson, the Stellarton office says farmers could sell direct to some Sobeys' stores.

4.2.8 Co-op Stores

Co-op Store at Oak Tree Place, Charlottetown, sells organic lettuce and soy products, most of which come from Quebec. No product is bought from PEI. The supply centre for all Co-op stores in the region is in Moncton, and all purchases of grains and oilseeds would have to go through that location – although the Charlottetown store could purchase some produce directly.

4.2.9 Home Grown Organics

Home Grown Organics in Halifax sells organic fruits and vegetables, meats, baking goods, pasta sauces, and more. It has the only delivery service of its kind in the Metro Halifax area. It buys various products through Seaspray in

PEI, including turnips and potatoes, and also buys from Speerville Mills – has a total of 100 suppliers of products.

Home Grown Organics' main business is wholesaling to restaurants and other food retailers. Products in high demand from consumers are spelt flours, gluten free products, oats, multi-grain products, buckwheat, brown rice, and flax seeds. An increasingly popular product is free-range beef and chicken.

As of May 1, 2004, the operation is moving to a better location and bigger storage facility. This will allow the firm to buy more produce direct from farmers (mainly fruits and vegetables). They will compete directly with Pete's Frutique.

4.2.10 The Root Cellar

The Root Cellar in Charlottetown sells the following organic products: alfalfa, soybeans, soymilk, soy sauces, other soy products, oats, spelt flour, buckwheat, herbs, organic snacks; plus vegetables such as broccoli, cauliflower, carrots, lettuce, yams, sweet potatoes, beets, and green beans. Their most popular items are gluten free products. Between May and October, the store buys 85% of their organic produce from local farmers. For the rest of the year, organic products are supplied by outside sources, such as Pro Organics.

4.2.11 Outside the Region Markets

There are various potential buyers in Quebec, Ontario, and New England, who are very interested in purchasing organic grains and oilseeds from PEI producers.

Bianca International Organics in Montreal, PQ, connects buyers to sellers of organic products to find buyers the lowest prices. The firm deals in sales of spelt, yellow peas (animal feed), beans and grains, organic sweeteners, nuts, and dried fruit. Products in high demand include spelt, herbal teas, frozen fruits and vegetables, diced or pureed fruits and vegetables. Bianca International Organics charges commissions for sales arranged by their agency. Their current prices paid to producers are:

- Organic yellow peas (animal feed & human) - \$460/tonne (landed Montreal)
- Organic soybeans (animal feed & human) - \$720/tonne (landed Montreal)
- Organic barley (animal feed) - \$240/tonne (landed Ontario)

Meunerie Milanaise Inc. of Milan, Quebec, is looking for cereal grains, such as hard red spring wheat, rye, buckwheat, soft and hard winter wheat, spelt, and is also interested in oilseeds. They process 8000 tonnes of organic grains annually, and they say there are good opportunities for Island farmers to sell to them.

Moulin Flour Mill in Isle-aux-Coudress, Quebec, also buys organic grains.

Beland Organic Foods, Elora, Ontario (head office is in Quebec) sells processed foods such as soy, meat, and vegetables. All products must be "95% certified". They currently do not buy anything from PEI and believe PEI would have difficulty competing because of shipping costs. They believe the market is saturated for tofu, and they have about 100

manufacturers from Asia, ten from British Columbia, and various from Ontario and Quebec.

Global Organics in Arlington, Massachusetts, is interested in purchasing Island organic soybeans.

Great Lakes Organics Inc. in Petrolia, Ontario, buys and sells grains and oilseeds, and distributes nationally. The firm is always looking for more producers to add to its contact list. Member producers have first chance at available contracts. Their sales are far exceeding their production, so lots of room for more producers, especially for corn, soybeans, spelt, and barley. All products have to be certified, and it would be best if grains for PEI were certified for European standards. They do not buy much from Atlantic Canada because of shipping costs, but products can be shipped to their plant in Montreal. They buy at all times of the year, by the truckload (approximately 30 tonnes).

Homestead Organics in Berwick, Ontario, produces about 3400 tonnes of organic grains per year, with corn and soybeans being their main priority. Their prices (February 2004), landed Berwick, Ontario, are:

Organic Product	Buy Today	Sell Today	Mar-May 2004	Jun-Aug 2004	New Crop 2004
Corn	\$265	\$295 (bin run)	\$265	\$285	\$250
Food soy	\$690	-	\$690	\$700	\$700
Feed soy	\$550	-	\$570	\$590	\$500
Feed wheat	\$250	\$310 (cleaned)	\$250	\$260	\$230
Oats	\$250	\$310 (cleaned)	\$250	\$260	\$230
Barley	\$270	\$310 (cleaned)	\$270	\$270	\$230
Rye	\$300	-	\$300	-	-
Feed peas	-	\$510	\$420	\$450	\$400
Flax pellets	-	\$650 (bin run)			

4.3 Transportation

When shipping to Speerville Mills, farmers usually try to find their own trucking company in order to save money. If Speerville arranges to pick up the grain, it will cost \$800-\$1,100 for 30 metric tonnes, depending on the number of pick-ups. The trucks are usually feed trucks, with sucking and blowing systems, or bulk trucks with tip trailers. The boxes have

dividers for separating the various grains. Speerville also receives Island deliveries in pallets/bags from Diamond's Transfer. When picking up the grain from the farm, the first farmer (certified) ensures the trucks are clean and free of anything that might contaminate the grain.

There is presently no PEI trucking company that regularly transports organic products to Speerville Mills (or anywhere else off Island). The Island farmer usually arranges the trucking by calling around to different trucking companies to get the best price. Typical prices for Speerville Mills from PEI for organic growers is about \$30-\$50 per tonne.

Morley Annear Ltd. Trucking of Montague, PEI, would provide trucking for organic grains at the following prices.

- o From PEI to Milan, PQ, at \$43/tonne, plus fuel charges applicable at the time.
- o From PEI to Speerville Mills, NB, at \$34.75/tonne plus fuel surcharge.

Some Island producers shipping to Speerville let the mill handle the transport. The producer sometimes has to haul the grain to a depot on PEI. Five or six certified producers co-operate to fill a truck, and it is the responsibility of the first farmer on the pick-up route to inspect the truck.

4.4 Level of Conventional Grower Interest

As part of the research for this study, MacArthur Group Inc. contacted a sample of conventional growers across PEI to determine their interest in shifting some of their production into organic agriculture. It is important to assess the interest of conventional growers in converting to organic, because it is generally recognized that major growth in the PEI organic production sector will only come about when/if such conversion takes place. Following are the types of responses among those sampled:

Among the few large Island potato producers contacted, there was no interest in converting any acreage to organic. Reason for lack of interest ranged from *"loss of potato market share"* to concerns that organic practices do not enable the producer to *"deal effectively with pests – the larger you are and the more types of crops you have, the greater the need to manage pests."*

Among relatively large conventional soybean producers, the main limitation to conversion to organic is weeds. Soybeans are very poor competitors with weeds, which choke out soybeans. Because soybeans

are slow to grow and do not come up until late spring, weeds are already growing strong. There would be interest among some conventional soybean producers in trying a few acres of organic soybeans if the weed problem could be remedied.

There is concern among some conventional farmers that a substantial conversion by Island producers to organic could threaten our food supply. One respondent pointed out that 100 years ago, when crops were grown organically, famines resulted from diseases and various insects decimating the crops. *"Thanks to chemicals and pesticides, we can now guarantee that there will be food next year."* One respondent pointed out that recently one of his conventional farming neighbours tried a small acreage of organic sweet corn, which was wiped out by corn worm. Also, several conventional producers said they might consider going organic, except they couldn't afford the loss of income during the three-year transition stage.

All conventional respondents, large and small, are of the view that the most likely producers to convert to organic are the smaller, not the larger, producers. Reasons cited for this view range from the large producer not being able to take the risk of taking a big operation/investment in a new direction, to the view that a large organic producer could never effectively manage the pest issue.

While there is definite interest in some smaller conventional growers converting acreage to organic, there is also an obvious lack of information and a low level of awareness of the size and growth of the organic industry. Some conventional farming respondents see little evidence here in PEI of consumers demanding organic products, so they wrongly assume the same case exists everywhere. One respondent said that people don't really care if food is organic or not, *"Whoever heard of anyone asking for organic meat in a restaurant or asking for foods that are free of GMO's or antibiotics?"* The reality is that lots of people in other places are demanding exactly these things.

The consultant also spoke to a PEI meat processor for his views on organic meat production here in PEI. He observed that:

he cannot understand why more farmers are not going organic in meat production, because there is better money in it;

his meat operation would go organic, because there are good markets for organic meat products, but he can't get the supply of organically raised animals;

a few producers need to get together and give an assured supply and the organic meat side in PEI could move ahead;

could use the new Borden beef plant as a test site, while recognizing that the market demands that every plant needs to be federally inspected.

5.0 A Strategic Plan

A great deal of primary and secondary research has been undertaken, as well as an analysis of findings, in order to put forward a Strategic Plan for grains and oilseeds development in Prince Edward Island.

5.1 Strategic Considerations

There are a number of strategic considerations that provide the basis for the Recommendations that follow. These strategic considerations include:

1. Although this study was originally planned as an “Organic Grains and Cereal Market Research” study, it is important to recognize the importance of production considerations in developing a strategy or plan. It is not appropriate to identify various markets unless such markets are realistic in terms of production capabilities and other supply considerations. As a result of these considerations, instead of providing only a market research study, this report attempts to map out an overall organic grains and cereals strategic plan that takes into account all of the factors necessary to build a stronger PEI organic grains and cereals industry.
2. It is also overly restrictive to confine research to only organic grains and cereals. The future and success of this segment of the Island organics industry will depend on developing a strong and vibrant overall organic farming industry in PEI. Rotational, income, infrastructural, and other considerations that relate to grains and cereals also encompass other sub-sectors of organic agriculture in PEI. Grains and cereals cannot be developed successfully independent of the development of other parts of the PEI organic industry.
3. Although conventional agriculture in PEI is a world leader in terms of production, processing and related value-added (e.g. packaging, branding), organic agriculture in PEI is in its infancy and is developing at a rate considerably behind other jurisdictions, most of which are not as advanced in conventional agriculture as is PEI. There is simply not the existing organic capacity, at the organizational or production levels, in PEI to move forward with large, value-added projects as is happening in organic agriculture in some other jurisdictions.
4. Most of the issues facing the PEI organic grains and cereals sector are production or infrastructure related, not marketing issues. There are indeed some marketing needs and excellent marketing opportunities, but the challenge is to develop the production and infrastructure

foundations of the industry, so that the existing market opportunities can be realized and new ones developed.

5.2 Recommendations

Recommendation #1: The PEI Certified Organic Producers Co-operative should play the lead role in advancing the PEI organic agriculture industry, including the grains and oilseeds sector. This will require substantial additional human and technical resources within the Co-operative.

Rationale: There needs to be much stronger leadership by the industry itself if important steps to bring the organic grains and oilseeds sector (and the larger organic agriculture sector) are to be undertaken and accomplished. Government can help, as can organizations ranging from ACORN to FoodTrust, but some organization must have the authority and responsibility to lead the PEI organic industry to new levels. The logical organization to do so is the PEI Certified Organic Producers Co-operative.

Recommendation #2: The PEI Certified Organic Producers Co-operative should immediately seek buy-in and enhanced, comprehensive, and ongoing support from the Government of Prince Edward Island, with such support centred in, but expanding beyond, the PEI Department of Agriculture, Fisheries, Aquaculture and Forestry.

Rationale: Achieving a new level of organic agriculture in PEI can likely not be achieved without the active and strong commitment of the Government of Prince Edward Island at many levels. In the short term, this need not involve major new direct funding from the Province (it is realized that budgets are very tight), but it must involve an enhanced role for PEI Department of Agriculture officials (addressing production and other producer needs) and various other organizations ranging from PEI Food Technology Centre (value added products), to PEI Grain Elevators Corporation (grain storage), to FoodTrust (marketing support). While the PEI Certified Organic Products Co-operative can lead the strategic development initiative, they cannot mobilize key provincial government departments and agencies unless/until there is clear direction from the most senior levels of the Province that its human, technical, and infrastructure resources are fully on board.

It is important to point out that the status quo or current level of support by the Province for organic agriculture is not getting the

job done. Production levels are remaining low; there is far less processing or other value-added activity in PEI than in other jurisdictions; some of those who have entered the production or value-added side have withdrawn because of lack of returns; few conventional PEI farmers are converting to organic, even

“There is mounting evidence that if all the indirect costs of conventional food production (cleanup of polluted water, replacement of eroded soils, costs of health care for farmers and their workers) were factored in the price of food, conventionally produced products would cost as much as, or more than organic produce.”

though the conventional potato, beef, and pork sectors are in disarray; although PEI’s need to achieve environmental sustainability is greater than most other jurisdictions due to our limited land mass and competing/intensive land uses, we are quickly falling behind in organic agriculture development – one of the most obvious ways to achieve sustainability in agriculture.

Most of all, there does not appear to be a vision for organic agriculture in PEI. Where does PEI plan to, or wish to, go with organic agriculture in the coming years? For example, the Government of Quebec has led the growth of organic agriculture and related value-added in that province and has set the following growth objectives in its Strategic Plan for Quebec’s Organic Food Sector, 2004-2009.

Increase by five-fold the number of organic products processed in Quebec.

Increase by five-fold the number of Quebec organic products sold in domestic markets.

Triple by 2009 the value of exports of Quebec organic food products sold in domestic markets.

It is essential that the Government of Prince Edward Island buys into the strategy from the outset and supports it as a high priority across all of its potential support institutions/officials.

Recommendation #3: With the Government of Prince Edward Island firmly behind the strategy, the PEI Certified Organic Producers Co-operative should next ensure that the federal government is equally supportive. While the contribution of the Province will be largely in the area of institutional and human resources, the federal contribution should be

primarily in funding. Approaches need to be made by the Co-operative at both the officials and the Member of Parliament levels.

Rationale: ADAPT has been an outstanding funding partner and supporter of the PEI organic industry, and its continuing support is essential. There is also an important role for ACOA in both processing and other value-added initiatives and in support of the PEI Certified Organic Producers Co-operative under ACOA's Business Development Program, Non-Commercial Organizations component.

Recommendation #4: Initial development activities for grains and oilseeds (and for the larger PEI organics sector) should focus on existing organic producers. As successes are achieved within the existing industry, they can make it much easier to convert conventional growers in increasing numbers.

Rationale: There is significant potential to assist existing Island organic producers to expand production and to initiate/expand processing/value-added activities. The first responsibility of the Co-operative should be to its own membership, who understands the industry and its constraints and opportunities.

This recommendation fully recognizes that major, long-term development of the PEI organic industry will ultimately depend on substantial numbers of conventional producers (likely smaller operations) converting to organic production. However, that conversion can best come about if conventional farmers can see that most, if not all, existing organic producers are making a good living, and that the PEI organic industry is on a firm foundation. Neither of those preconditions is in place now and, until they are, recruiting conventional producers in substantial numbers may not be successful. The best recruitment tool is to have a strong (albeit small) existing organic industry in place.

Recommendation #5: Any and all strategic initiatives must recognize the fundamental importance of quality and dependability in the marketplace. Quality means all products being certified, with the objective of achieving the most demanding certification requirements such as those of the European market. Quality also means excellent packaging/presentation, freshness, branding, etc. Dependability means being a dependable supplier at all times and one that the buyer can always count on, in every situation.

Rationale: PEI has established a hard-earned reputation for quality and professionalism in its products. The PEI organic industry can benefit greatly from this PEI brand. Additionally, buyers and consumers are increasingly demanding that organic products fulfill all the quality and dependability criteria of conventional products. Finally, there have already been occasional issues from buyers of PEI organic products relating to quality and dependability. These issues must be removed from the outset, and it should be a high priority of the PEI Certified Organic Producers Co-operative to monitor and assure highest quality and dependability.

Recommendation #6: A first marketing objective for the Co-operative and its members should be to serve existing, easily accessible local and regional markets. There is an opportunity for product displacement of imported organic products, and the opportunity is large. In fact, the opportunity is far larger than the limited number of Island organic producers can fully address.

Rationale: It should be easier and more rewarding to sell, for example, to Speerville Mills in New Brunswick than to mills in Quebec, Ontario, or New England because of transportation cost advantages, rather than disadvantages. Similarly, the second largest food retailer in Canada, Sobeys, is headquartered in Stellarton, Nova Scotia, a stone's throw from PEI. It appears that PEI is not effectively marketing itself to Sobeys when USA or west coast Canada based organic producers can sell product to Sobeys in Stellarton for PEI food stores. Similarly, there is potential for greater organic sales to consumers here in PEI and in the region through buyers such as The Root Cellar in Charlottetown and Homegrown Organics in Halifax.

Recommendation #7: To displace imported product and to develop markets further, there is a need for PEI organic producers of grains, oilseeds, and other products to work more closely together. This need can best be addressed by the Co-operative, and relates to joint marketing initiatives, jointly filling orders from buyers, co-operating on storage, transportation, and other infrastructural needs.

Rationale: Most Island organic producers are too small to individually service the needs of most buyers. But, by working together in a co-operative fashion, there can be synergies and opportunities that would not exist as independent producers.

Recommendation #8: There is a need to develop new product development and import substitution organic opportunities, which are

built on the capabilities and interests of Island organic producers (e.g. organic meats, expansion of soy processing).

Rationale: There are major growth opportunities in PEI and in the region in organic meats and in some other organic categories. However, there needs to be funding and technical support from government for infrastructure (e.g. establish a federal inspected slaughterhouse capability so PEI organic meats can be sold off-Island; reducing the cost to the organic producer for crop insurance) that can help qualified organic producers to invest in these new opportunities. In our view, these local and regional opportunities to serve our home markets need to be captured before major investments are made in large projects or distant markets.

Recommendation #9: The PEI Certified Organic Producers Co-operative should play the lead role in two distinct communications/marketing strategies:

1. Ongoing marketing/awareness program, through Internet, seminars, etc. directed at existing PEI organic producers and conventional producers on production and marketing information, trends, activities, etc.
2. Marketing/awareness program with PEI consumers on the benefits and availability of PEI organic products through Internet, farmer's market, and in store displays and point of purchase materials, tourism promotions, etc.

Rationale: There needs to be more, and higher quality, organic agriculture information reaching producers and potential producers and reaching consumers. In fact, many consumers often don't know where to purchase specific organic products. Also, as is evident from our survey results in Section 4.4, a high percentage of Island conventional producers are not aware of the growth and opportunity that is taking place in the organic sector. It is obvious that consumers are well ahead of most producers in moving forward the organic agenda.

Recommendation #10: The foregoing nine steps can provide a firm foundation for the PEI organic industry to get its house in order, to replace imported product coming into the region, and to enhance the incomes and futures of organic producers, which, in turn, will entice conventional producers to convert to organic production.

Once the foregoing is secured (2-3 years), the PEI organic industry should identify a series of niche organic markets involving growing and, in most cases, processing products in PEI for export in and beyond Atlantic Canada.

Rationale: There is every reason to believe that, in the longer term, the PEI organic grains and oilseed sector and the more general organic agriculture industry can be as successful in a PEI setting as conventional agriculture was in the past. Also, it is important that the PEI organic industry not be overly commodity based, but instead develop diversified and value-added opportunities.

5.3 Objectives

It is recognized that organic grains and oilseeds production growth in PEI will require that the overall organic production industry in PEI grow accordingly. However, because the focus of this study is on grains and oilseeds, the objectives in this section are limited to grains and oilseeds crops.

In 2003, approximately 250 acres of organic grains and 82 acres of oilseeds were grown in PEI. These are small acreages for an agricultural province like PEI, which espouses the merits of sustainable agricultural production. An ambitious, but achievable, objective should be to increase organic grains production (including in transition acreage) in PEI to 1,000 acres within three years and to increase organic soybean production to 500 acres in the same time frame. Achieving this objective will require that the Recommendations in Section 5.2 are effectively carried out.

The markets are clearly in place to achieve these objectives. For example, in most years, Speerville Mills depends heavily on Western Canada suppliers to meet the mill's needs. An increase of 50-60 acres of PEI wheat grown for sale to Speerville in the 2004 crop year would be realistic. For oats, Speerville says that if there were storage available, the mill would pay an additional \$20-\$25 per tonne on top of today's prices. With storage in place in the coming year, Speerville could purchase an additional 50 acres of PEI oats. In Speerville's view, the two factors that can contribute to increased PEI sales of grain to Speerville are provision of storage space and dependable supply – they can't be sending a truck to pick up 10 tonnes of oats and find there is only 8 tonnes available.

Speerville is only one of the readily available markets for Island organic grains, with others mentioned in earlier sections of this report. Additionally, Speerville says an American competitor may be driving prices up in this region shortly (e.g. offering \$400 per tonne for oats, compared to

Speerville's current price of \$350). And, there are other new entrants coming into the market to buy organic grains from this region.

For soybeans, the market demand is even stronger. In fact, there is a great shortage of organic soybeans, to the point that it is very much a seller's market. Maritime Soycraft here in PEI has difficulties acquiring soybeans, and Speerville Mills will be actively buying soybeans this year. There are also many buyers outside the region seeking organic soybeans from PEI and offering attractive prices.

Development of the PEI organic grain opportunity, and to an even more pronounced degree, the PEI organic soybean market, will depend on resolution of production and infrastructure issues to a much greater extent than marketing issues. There is adequate market potential for substantial growth, but the constraints are:

Too little production and too few producers because of perceived production problems (e.g. from concerns about dealing with pests, to weed problems – particularly for soybeans).

Poor quality information reaching producers and potential producers (e.g. conventional growers) as to the scale and particulars of the organic grains and oilseeds opportunity in PEI.

Lack of infrastructure, ranging from production advice (e.g. the range of crop yield from one organic farm to the next is often much greater than for conventional operations), to absence of storage and consolidation of product capability.

In short, the solution to reaching the production objectives cited earlier is, in large measure, to address the issues existing here in PEI, rather than being overly concerned by marketplace limitations.

On the value added side, there is already one soy processor in PEI, but there is room for substantial expansion of that operation and introduction of new grain processing capabilities, likely of a small scale, but important to the growth of the industry. In a three-year timeframe, a realistic objective would be to at least double the activity of the existing soy processor and add two or three new grain processing operations. Only as the acreage increases to much more substantial levels should consideration be given (as has been discussed in some quarters) to a large flour mill requiring 14,000 or more acres of production. Such a facility is likely well down the road but, in the meantime, there is a need and an opportunity to encourage additional value

added processing capability of a scale which is in keeping with the availability of raw product in PEI and in the region.

There is a substantial opportunity, both at the production and at the processing level. This is an industry in its infancy in PEI, and the next several years will be needed to take the organic grains and oilseed sector in PEI to a new plateau of growth and sustainability. When this is achieved, the scale and base will be in place for PEI to become a leader in organic grains and oilseeds.

APPENDIX 1

**Atlantic Canada Organic Production &
Processing Statistics**

2003 Certified Organic Statistics-New Brunswick

Producers- 33 (includes 2 transition) **Total Acreage- 2114 acres / 2150 acres maple**

Processors- 14 **Total Sales- \$2,225,000**

Product Category	Acres	Total Production	Direct to Consumer ** (%)	Wholesalers & Retailers & Restaurants (%)	processing/ value-added (%)	Export Market (%)
Mixed Vegetables- 17	55.5		82	12	6	
Greenhouse Veg - 2	2		25	75		
Herbs -4	5.5		50	47.5	2.5	
Small fruit -8	11.5		78	15	7	
Tree fruit -6	18.8		64	17	19	
Potatoes -3	1		74	26		
Milling Wheat -2	27		50		50	
Hull-less Oats - 2	20				100	
Spelt -1	5				100	
Other Spring Grains-3	45		75		25	
Maple -5	1655+	400,000(+) lbs	5	11	2	82
Processed Goods - 8	Re-packed seeds Seafood fertilizers Compost Re-packed sugar Bread	500 lbs/ yr 5000 t 15,000 t 175,000 kilos 3000 t	100 15	15 100		100 70
Cattle -4	97 head		100			
Poultry/ eggs -2	400 layers		72.5	27.5		
Pasture/ Hay -7	1922		100			
Other- specify	Mushrooms ½acre - garlic	1600 lbs	10 100	9		

SALES of Certified Gross Income (Producers)

Sales	# operations	Total sales	% operations
Less than \$5000	15	\$37,500	33%
\$5-10,000	8	\$60,000	18%
\$10-15,000	3	\$45,000	6.5%
\$15-20,000	1	\$17,500	2%
\$20-30,000	3	\$75,000	6.5%
\$30-40,000	2	\$70,000	4%
\$40-60,000	1	\$50,000	2%
\$60-80,000	1	\$70,000	2%
More than \$100,000	12	\$1,800,000	26%
	TOTAL	\$2,225,000	

Total Producer Sales- \$475,000
Total Processor Sales- \$1,075,000
Total Maple Sales- \$675,000

Commodity Overview (by numbers of producers):

Greenhouse 3%

Mixed Vegetable 28%

Herbs 0.5%

Livestock 8%

Grain / Beans 11%

Fruit 19.5%

Hay / Pasture 10%

2003 Certified Organic Statistics - Nova Scotia

Producers - 46 (1 transition)

Total acreage = 1022 acres

Processors - 13

Total sales = \$ 2,664,639

Product Category/ # of producers	Acres	Total Production	Direct to Consumer(%)	Wholesalers, Retailers & Restaurants(%)	For processing/ value-added(%)	Export M out of Atl. CDA(%)
Ornamentals - 2	1.75	Cut/dried	35	65		
Mixed Vegetables - 26	77.5		65	35		
Greenhouse Vegetables-6	4.5		84	16		
Herbs - 9	5		75	25		
Small fruit - 13	23.5		73	27		
Tree fruit - 12	69		45	17	38	
Potatoes - 4	6.5		45	17	38	
Hull-less Oats - 1	3					
Spelt - 1	6	500 bu			100	
Spring Grains - 3	83		66		34	
Maple - 1	600 taps	358 L				
Processed Goods - 12	Bread Granola Cider Applesauce Re-packed herbs Fertilizer Animal feed Coffee Soup mix Bread Nut butters Compost Medicinal herbs	10,000 loaves 1500 kg 2000L 100 bins 500 lbs 3-4 t 40 t 75,000 kg 100 lbs	50 50 50 100 75 100 100	50 50 50 100		
Cattle - 4	140 head		62.5	37.5		
Sheep - 2	50 head		75	25		
Eggs - 3	350 layers		30	70		
Other livestock-	Pigs – 11, Goats 5 Turkey/geese 10					
Pasture/ Hay - 10	742		100			
Other- specify	Garlic - 1 Alfalfa sprouts	4500 bulbs 200 kilos	50 50	25 50		25

SALES of Certified Gross Income:

Sales	# of operations	Total sales	% of producers
Less than \$5000	17	\$42,500	29.5%
\$5-10,000	11	\$82,500	19%
\$10-15,000	6	\$75,000	10.5%
\$15-20,000	5	\$87,500	9%
\$20-30,000	6	\$150,000	10.5%
\$30-40,000	2	\$70,000	3.5%
\$40-60,000	7	\$350,000	12%
\$60-80,000	1	\$70,000	1.5%
More than \$100,000	3	\$1737139	5%
	TOTAL	\$2,664,639	

Total Producer Sales- \$807,500
Total Processor Sales- \$1,857,139

Commodity Overview (by numbers of producers):

Greenhouse 5.5%
Mixed Vegetable 29%
Herbs 8.5%
Livestock 8.5%
Grain / Beans 4.5%
Processing 12%
Fruit 23%
Hay / Pasture 9%

2003 Certified Organic Statistics - Prince Edward Island

Producers -28 (includes 5 in transition)

Total acreage =1616 Acres

Processors - 2

Total sales = \$ 685,000

Product category/ # of producers	Acres	Total Production	Direct to consumer (%)	Wholesalers, retail & restaurants (%)	processing/ value- added (%)
Mixed vegetables -13	11	66000 lbs	100		
Cole crops	12.5	106000 lbs	6	94	
Herbs/medicinal -6	6		10	70	20
Small fruit -4	2.5		100		
Potatoes -7	87	1,913950 lbs	14	86	
Soybeans -4	82	106000 lbs		53	47
Milling wheat -5	117	107100 lbs			100
Oats -1	50	55000 lbs			100
Spelt -4	39	76600 lbs			100
Spring Grains -4	47	94000 lbs			100
Cattle -1	50 head	32 head	100		
Pasture/hay -6	408		100		
Other-specify	edible flowers -1 flowers -1 (1Ac) Greenhouse veg - 1		100 100 100		
pulse-(beans, lentils..)	1				

Sales of Certified Gross Income:

Sales	# of operations	Total sales	% of producers
Less than \$5000	8	\$20,000	33%
\$5-10,000	4	\$30,000	15%
\$10-15,000	3	\$37,000	12.5%
\$15-20,000	2	\$35,000	8%
\$20-30,000	0	0	
\$30-40,000	3	\$70,000	12.5%
\$40-60,000	0	0	
More than \$80,000	5	\$492,500	20%
	TOTAL	\$ 685,000	

2003 Certified Organic Statistics - Newfoundland

Producers - 3
Processors - 0

Total Acreage - 85 acres
Total Sales - \$92,500

Product Category/ # of producers	Acres	Total Production	Direct to Consumer (%)	To Wholesalers, Retailers & Restaurants (%)	Export Market out of Atl. Canada (%)
Ornamentals - 1	.5		100		
Mixed Vegetables - 2	2		130	70	
Greenhouse Vegetables- 1	.1		20	80	
Herbs - 2	1.1		20	80	
Small fruit - 2	65.1	70,000 lbs *		20	80
Tree fruit - 2	16.1		20	180	
Potatoes - 1	.1		50	50	

* 60,000 lbs sold into conventional market

SALES of Certified Gross Income

Sales	# of operations	Total sales
Less than \$5000		
\$5-10,000	1	\$7,500
\$10-15,000		
\$15-20,000		
\$20-30,000		
\$30-40,000	1	\$35,000
\$40-60,000	1	\$50,000
	TOTAL	\$92,500

Appendix 2

List of Individuals and Organizations Contacted

ACADIAN SEAPLANTS LIMITED
30 Brown Avenue, Dartmouth
Nova Scotia, Canada, B3B 1X8
902-468-2840 (P)
902-468-3474 (F)
info@acadian.ca
Email, Feb 20,04

Agra Point
Kentville Office
10 Webster Street
Suite 210
Town Square Mailbox 204
Kentville, NS B4N 1H7
902-687-7722 (P)
902-678-7266 (F)
info@agrapoint.ca
Email, Feb 24, 04

Atlantic Superstore
Charlottetown Market
465 University Avenue
Charlottetown, PE
C1A 4N8
Produce Manager, Johnathon Good
902-569-2850 (P)
902-569-2755 (F)
Met February 26

Atlantic Wholesalers
Atlantic Wholesalers
120 Eileen Stubbs Avenue
Dartmouth, NS
B3B 1Y1
Vi Konkle
Executive Vice President
vkonkle@ngco.com
Emailed and phoned March 12, 13

Atlantic Canadian Organic Regional Network
(ACORN)
3101 Hwy 236, RR #1
Kennetcook, NS
B0N 1P0
902-632-2523 (P)
902-632-2837 (F)
admin@acornorganic.org
jen_melanson@ns.sympatico.ca
Email, Feb 24, 04 – again on March 12

Beland Organic Foods
PO Box 267
60 Mill Street West
Elora, ON N0B 1S0
519-846-8098 (P)
519-846-2899 (F)
March 3, 2004

Bianca International Organic
7174 Marquette, Suite One
Montreal, PQ H2E 2C8
514-376-7711
March 5, 2004

Co-op Oak Tree Place
Charlottetown, PE
March 3, 2004

Co-op Atlantic
123 Halifax Street, PO Box 750
Moncton, NB E1C 8N5
506-858-6300
Norma Babineau
March 5, 2004

Dover Industries Ltd
Halifax, NS
John Snow
March 9, 2004

Global Organics
Arlington, MA 02476-0003 USA
Tel: (781) 648-8844 ext.11
Fax: (781) 648-0774
andrew@global-organics.com
www.global-organics.com

Great Lakes Organics
PO Box 1330
4492 Progress Drive
Petrolia, ON
N0N 1R0
519-941-8961 (P)
519-882-0355 (F)
877-409-9917
greatlakesorganic@on.aibn.com
www.greatlakesorganic.com
Email March 12 and phone

Halifax Seed Co. Inc.
 5860 Kane Street
 PO Box 8026, Stn. "A"
 Halifax, Nova Scotia
 B3K 5L8
 Retailers of garden seeds (did not know this
 until I called them) Phoned February 20
 Home Grown Organic Foods
 2473 Fuller Terrace
 Halifax, NS
 B3K 3V9
 902-492-1412 (P)
 902-492-3050 (F)
info@hgof.ns.ca
 Email, Feb 20,04 – Phoned March 8

Homestead Organics
 1 Union Street
 Berwick, Ontario
 K0C 1G0
 1-877-984-0480 (P)
 613 984-0481 (F)
www.homesteadorganics.com
 Emailed

Institute of Bioregional Studies
 RR #4
 Souris, PE
 C0A 2B0
 Phil Ferraro
 902-687-2662 (P)
ibs-pei@yahoo.com
 Email, Feb 24, 04

Island Sun Shine
 Mt Stewart, PE
 902-676-2064
 Joyce Kelly
 February 28, 04

John MacLaughlan
 Mount Stewart, PE
 676-2982
 March 3, 2004

Kentdale Farm
 Winsloe, PE
 368-1411
 Fred Dollar
 February 28, 04

Loblaws Companies Ltd
 22 St. Clair Avenue East
 Toronto, ON
 4MT 2S7
 416-922-2500 (P)
 416-922-4395 (F)
 Referred me to Via Konkle in Atlantic
 Canada

Maine Organic Farmers and Gardeners
 Association
 Common Ground Country Fair
 PO Box 170
 Unity, ME 04988
 207-568-4142
 fax: 207-568-4141
 email: mofga@mofga.org
 Terry Bourgoin
 Waiting for reply

Maritime Certified Organic Growers Coop
 Ltd
 PO Box 20D
 RR #1
 Meteghan River, NS
 B0W 2L0
 902-769-3076 (P)
 902-769-0141 (F)
ageddry@nbnet.nb.ca
 Email, Feb 24, 04

Maritime Soy Craft
 John Hardy, Alberton PE
 902-423-8870 (P)

Master Feeds
 1020 Hargrieve Road
 London, ON
 N6E 1P5
 519-685-4300 (P)
 519-685-9410 (F)
 800-707-4779
 Phoned March 1 (do not process organic
 feed)

Master Feeds
 PO Box 40
 Kensington, PE
 C0B 1M0
 Att: Shawn Kerry
 902-836-3500 (P)
 902-836-3044 (F)

Meunerie Milanaise Inc.
108, road 214
Milan (Québec) Canada
G0Y 1E0
Telephone : (819) 657-4646
Robert Beauchemin
March 10, 04

[New Hampshire Dept. of Agriculture,
Markets & Food](#)

25 Capitol St.
P.O. Box 2042
Concord , NH 03302-2042
603-271-3685
Victoria Smith
March 8, 2004

New England Livestock Alliance
PO Box 20
Richmond, MA
01254
413-443-8356 (P)
contact@nehbc.org
Phoned March 8

New England Natural Bakers
74 Fairview Street East
Greenfield, MA
01301
413-772-2239 (P)
413-772-2936 (F)
nenb@nenb.com
No response

Nova Scotia Agriculture College/
Organic Agriculture Center of Canada
PO Box 550
Truro, NS
B2N 5E3
Dr. Derek Lynch, Researcher
Main Office
902-893-7256 (P)
902-893-3430 (F)
dlynch@nsac.ns.ca
Email February 24 – No response

Northeast Organic Farming Association
411 Sheldon Road |
Barre, MA
01005
(978) 355-2853 |
nofa@nofamass.org
Mary.Jordan@state.ma.us
Waiting for response

Organic Crop Producers & Processors Inc.
RR #1, 1099 Monarch Road
Lindsay, ON
K9V 4R1
CEO, Larry Lenhardt
705-324-2709 (P)
705-324-4829 (F)
ocpp@lindsaycomp.on.ca
Email, Feb 24, 04

PEI Department of Agriculture & Fisheries
440 University Ave, 1st fl
Charlottetown PE
C1A 7N3
Organic Specialist: Susan MacKinnon
902-358-5657 (P)
902-368-5729 (F)
sdmackinnon@gov.pe.ca
Email to Sandra MacKinnon, Feb 24, 04,
she then forwarded it to Susan MacKinnon –
no response – Doug was talking to

Pioneer Organics
Robert & Pamela Corey
483 Bond Road
Waterville, NS
B0P 1V0
pioneer.organics@ns.sympatico.ca
Phone, March 1, 04

Pro Organics Marketing Inc
Unit #4, 324 Horner Avenue
Etobicoke, ON
M8W 1Z3
Debra Boyle, President
416-252-3386 (P)
416-252-3142 (F)
888-874-2360
dboyle@proorganics.com
Email February 20-No response

Robin Hood Flour
Office in Quebec
Milling in Saskatoon
Phoned in March

Roger Henry
Stanleybridge, PE
(902) 886-3077
March 6, 2004

Saskatchewan Organic Directorate
Box 1
Lesieux, SK
S0H 2R0
Concerns and questions:
Debbie Miller
306-476-2089 (P)
306-476-2146 (F)
debbie.miller@saskorganic.com
Email, Feb 24, 04 – supposed to send information – not yet received

SEASPRAY FARMS ORGANIC CO-OPERATIVE
81 Prince Street
Charlottetown, PE
C1A 4R3
Marketing contact
Reg Phelan
902-961-2428 (P)
902-961-2428 (F)
rphelan@peisymphatico.ca
Email, Feb 24, 04, also contacted by phone March 1, 04

Sobey's Inc.
123 Foord St.
Stellarton, NS
B0K 1S0
Nancy Johnson
March 9, 2004

Spring Willow Farms
Springvale Farms
Smith Road
Hunter River, PE
C0A 1N0
(902) 964-2582
Feb 28, Buyers Market

Sobey's Food Stores
679 University Ave
Charlottetown, PE
Jeff LeClair Produce Manager
902-566-3218 (P)
Met with March 3

Speerville Flour Milling
152 Speerville Road
Speerville, NB
E7N 1S0
506-277-6371 (P)
506-277-1006 (F)
Phone, Feb 19, 04

The Root Cellar
34 Queen St
Charlottetown, PE
Kali Simmonds
Met with Ryan
February

University of Guelph
Dept of Food Science
Guelph, ON
N1G 2W1
519-824-4120 (P)
ext 56587
519-824-6631 (F)
mtimmings@uoguelph.ca
Email, Feb 24, 04
No response

Valley Flaxflour Ltd
Box 89, Middleton
Nova Scotia, Canada
B0S 1P0
Phone: (902) 825-1528
Fax: (902) 825-6295
Howard Selig
March 9, 2004

Vermont Organic Farmers/ NOFA-VT (North East Organic Farmers Association)
PO Box 697
Richmond, VT 05477
(802) 434-4122
vof@nofavt.org
www.nofavt.org
John Cleary, Certification Administrator
Phoned March 12, 04

Appendix 3

Labelling Packaged Products (USA)

AMS/USDA – The National Organic Program

Labelling Packaged Products

These requirements do not preempt Food and Drug Administration; USDA, Food Safety and Inspection Service; or the **Bureau of Alcohol, Tobacco, and Firearms** labeling regulations or label approval requirements.

Letter Codes for the information below indicate position on package and are defined as follows:

PDP: Principal Display Panel

IP: Information Panel

IS: Ingredients Statement

OP: Any Other Panel

If you want to claim:	"100 percent Organic" (or similar statement)
Your product:	Must contain 100 percent organically produced ingredients, not counting added water and salt.
Your label MUST:	Show an ingredient statement when the product consists of more than one ingredient. Show below the name and address of the handler (bottler, distributor, importer, manufacturer, packer, processor, etc.) of the finished product, the statement: "Certified organic by ____" or similar phrase, followed by the name of the Certifying Agent. Certifying Agent seals may not be used to satisfy this requirement. (IP)
Your label MAY show:	The term "100 percent organic" to modify the product name. (PDP/IP/OP) The term, "organic" to identify the organic ingredients ¹ . Water and salt included as ingredients must not be identified as organic. (IS) The USDA organic seal and/or certifying agent seal(s). (PDP/OP) The certifying agent business/Internet address or telephone number. (IP)
Your label MUST NOT show:	Not applicable

¹ To identify an ingredient as organically produced, in the ingredients statement, use the word, "organic" in conjunction with the name of the ingredient, or an asterisk or other reference mark which is defined below the ingredient statement.

If you want to claim:	"Organic" (or similar statement)
Your product:	<p>Must contain at least 95% organic ingredients, not counting added water and salt.</p> <p>Must not contain added sulfites.</p> <p>May contain up to 5% of:</p> <ol style="list-style-type: none"> nonorganically produced agricultural ingredients which are not commercially available in organic form; and/or other substances allowed by 7 CFR 205.605.
Your label MUST:	<p>Show an ingredient statement. List the organic ingredients as "organic" when other organic labeling is shown. ¹ Water and salt included as ingredients must not be identified as organic. (IS) Show below the name and address of the handler (bottler, distributor, importer, manufacturer, packer, processor, etc.) of the finished product, the statement:</p> <p style="text-align: center;">"Certified organic by ____" or similar phrase, followed by the name of the Certifying Agent. Certifying Agent seals may not be used to satisfy this requirement. (IP)</p>
Your label MAY show:	<p>The term "Organic" to modify the product name. (PDP/IP/OP) "X% organic" or "X% organic ingredients." (PDP/IP/OP) The USDA Organic seal and/or certifying agent seal(s). (PDP/OP) The certifying agent business/Internet address or telephone number. (IP)</p>
Your label MUST NOT show:	Not applicable

¹ To identify an ingredient as organically produced, in the ingredients statement, use the word, "organic" in conjunction with the name of the ingredient, or an asterisk or other reference mark which is defined below the ingredient statement.

If you want to claim:	"Made with Organic Ingredients" (or similar statement)
Your product:	<p>Must contain at least 70% organic ingredients, not counting added water and salt.</p> <p>Must not contain added sulfites; except that, wine may contain added sulfur dioxide in accordance with 7 CFR 205.605.</p> <p>May contain up to 30% of:</p> <ol style="list-style-type: none"> nonorganically produced agricultural ingredients; and/or other substances, including yeast, allowed by 7 CFR 205.605.

Your label MUST:	<p>Show an ingredient statement. List the organic ingredients as "organic" when other organic labeling is shown.¹ Water and salt included as ingredients must not be identified as organic. (IS) Show below the name and address of the handler (bottler, distributor, importer, manufacturer, packer, processor, etc.) of the finished product, the statement:</p> <p style="text-align: center;">"Certified organic by ____" or similar phrase, followed by the name of the Certifying Agent. Certifying Agent seals may not be used to satisfy this requirement. (IP)</p>
Your label MAY show:	<p>The term "Made with organic ____ (specified ingredients or food groups)." (PDP/IP/OP) "X% organic" or "X% organic ingredients." (PDP/IP/OP) The certifying agent seal(s). (PDP/OP) The certifying agent business/Internet address or telephone number. (IP)</p>
Your label MUST NOT show:	The USDA Organic seal

¹ To identify an ingredient as organically produced, in the ingredients statement, use the word, "organic" in conjunction with the name of the ingredient, or an asterisk or other reference mark which is defined below the ingredient statement.

If you want to claim:	That your product has some organic ingredients
Your product:	<p>May contain less than 70% organic ingredients, not counting added water and salt.</p> <p>May contain over 30% of:</p> <ol style="list-style-type: none"> a. nonorganically produced agricultural ingredients; and/or b. other substances, without being limited to those in 7 CFR 205.605
Your label MUST:	<p>Show an ingredient statement when the word organic is used.</p> <p>Identify organic ingredients as "organic" in the ingredients statement¹ when % organic is displayed. Water and salt included as ingredients must not be identified as organic. (IS)</p>
Your label MAY show:	<p>The organic status of ingredients in the ingredients statement.¹ Water and salt included as ingredients must not be identified as organic. (IS) "X% organic ingredients" when organically produced ingredients are identified in the ingredient statement. (IP)</p>
Your label MUST NOT show:	<p>Any other reference to organic contents. The USDA Organic seal. The certifying agent seal.</p>

¹To identify an ingredient as organically produced, in the ingredients statement, use the word, "organic" in conjunction with the name of the ingredient, or an asterisk or other reference mark which is defined below the ingredient statement.

January 9, 2003

Follow [this link](#) for a PDF format of how to Label Alcohol Beverage Containers. Adobe Acrobat Reader is needed to read PDF files. For a free downloadable version, [follow this link](#).

AMS/USDA – The National Organic Program

Organic Production and Handling Standards

The National Organic Program (NOP) regulations were developed to ensure that organically labeled products meet consistent national standards.

What agricultural operations are affected by the standards?

Any farm, wild crop harvesting, or handling operation that wants to sell an agricultural product as organically produced must adhere to the national organic standards. Handling operations include processors and manufacturers of organic products. These requirements include operating under an organic system plan approved by an accredited certifying agent and using materials in accordance with the National List of Allowed Synthetic and Prohibited Non-Synthetic Substances. Operations that sell less than \$5,000 a year in organic agricultural products are exempted from certification and preparing an organic system plan, but they must operate in compliance with these regulations and may label products as organic. Retail food establishments that sell organically produced agricultural products do not need to be certified.

Standards apply to production process

The national organic standards address the methods, practices, and substances used in producing and handling crops, livestock, and processed agricultural products. The requirements apply to the way the product is created, not to measurable properties of the product itself. Although specific practices and materials used by organic operations may vary, the standards require every aspect of organic production and handling to comply with the provisions of the Organic Foods Production Act (OFPA). Organically produced food cannot be produced using excluded methods, sewage sludge, or ionizing radiation.

Crop standards

The organic crop production standards say that:

Land will have no prohibited substances applied to it for at least 3 years before the harvest of an organic crop. The use of genetic engineering (included in excluded methods), ionizing radiation and sewage sludge is prohibited. Soil fertility and crop nutrients will be managed through tillage and cultivation practices, crop rotations, and cover crops, supplemented with animal and crop waste materials and allowed synthetic materials.

Preference will be given to the use of organic seeds and other planting stock, but a farmer may use non-organic seeds and planting stock under specified conditions. Crop pests, weeds, and diseases will be controlled primarily through management practices including physical, mechanical, and biological controls. When these practices are not sufficient, a biological, botanical, or synthetic substance approved for use on the National List may be used.

Livestock standards

These standards apply to animals used for meat, milk, eggs, and other animal products represented as organically produced.

The livestock standards say that:

Animals for slaughter must be raised under organic management from the last third of gestation, or no later than the second day of life for poultry. Producers are required to feed livestock agricultural feed products that are 100 percent organic, but may also provide allowed vitamin and mineral supplements. Producers may convert an entire, distinct dairy herd to organic production by providing 80 percent organically produced feed for 9 months, followed by 3 months of 100 percent organically produced feed. Organically raised animals may not be given hormones to promote growth, or antibiotics for any reason. Preventive management practices, including the use of vaccines, will be used to keep animals healthy. Producers are prohibited from withholding treatment from a sick or injured animal; however, animals treated with a prohibited medication may not be sold as organic. All organically raised animals must have access to the outdoors, including access to pasture for ruminants. They may be temporarily confined only for reasons of health, safety, the animal's stage of production, or to protect soil or water quality.

Handling standards

The handling standards say that:

All non-agricultural ingredients, whether synthetic or non-synthetic, must be included on the National List of Allowed Synthetic and Prohibited Non-Synthetic Substances. Handlers must prevent the commingling of organic with non-organic products and protect organic products from contact with prohibited substances. In a processed product labeled as "organic," all agricultural ingredients must be organically produced, unless the ingredient(s) is not commercially available in organic form.

October 2002

Appendix 4

Off-Island Contacts

Off Island Contacts

<u>Company</u>	<u>Address/Contact</u>	<u>Tel/Fax</u>	<u>Email</u>	<u>Description</u>
Abenakis Milling	7174 Marquette, Suite One Montreal, PQ H2E 2C8	514-376-7711(P)	info@moulinabenakis.ca www.moulinabenakis.ca	"Quebec's largest line of certified organic products". Flour, muffin and cake mixes, cookies, etc.
Acadian Seaplants Limited	30 Brown Avenue, Dartmouth Nova Scotia, Canada, B3B 1X8	902-468-2840 (P) 902-468-3474 (F)	info@acadian.ca	Acadian Seaplants is a diversified, technology-based manufacturer of natural, specialty fertilizers, feed, food, food ingredients and brewery supplies derived from select species of marine plants.
Agra Point	Truro Office, 199 Innovation Drive, AgriTECH Park, Truro, Nova Scotia, Canada B2N 6Z4	902-896-0277 (P) 902-896-7299 (F)	a.singh@agrapoint.ca www.agrapoint.ca	AgraPoint International Inc. (formerly the Agricultural Development Institute) is an agricultural development and consulting company providing services to farmers, provincial and national associations, government, agri-businesses, co-operatives and processors.
Agriculture & Agri-Food Canada	First Floor, 2200 Walkley Rd, Ottawa ON K1A 0C5 Paul Sereda	613-759-6236 (P)	seredap@agr.gc.ca	Horticulture and Special Crops Division
Atlantic Canadian Organic Regional Network (ACORN)	3101 Hwy 236, RR #1 Kennetcook, NS B0N 1P0 Jennifer Melanson	902-632-2523 (P) 902-632-2837 (F)	admin@acomorganic.org	ACORN has been in development since 1998 when members of the four regional organic grower certification groups (PEI/NS/NF and NB chapters of the Organic Crop Improvement Association (OCIA), Nova Scotia Organic Growers Association (NSOGA), and Maritime Certified Organic Growers (MCOG)), along with a number of organic food cooperatives, processors, retailers, educators, inspectors and consumers, determined they needed a regional organization to act on their behalf.
Atlantic Wholesalers	120 Eileen Stubbs Avenue Dartmouth, NS B3B 1Y1 Vi Konkle, Executive VP, Eric Gallant, VP Merchandising		vkonkle@ngco.com EGallan@ngco.com	Wholesale outlet for Atlantic Superstores, Save Easys, etc.

Beland Organic Foods	PO Box 267, 60 Mill Street West, Elora, ON N0B 1S0 Lucy Fukushima, Sales Associate	519-846-8098 (P) 519-846-2899 (F)	lucy@belandorganicfoods.com www.belandorganicfoods.com/cdnheritage.f ml	
Berkshire Regional Food and Land Council	44 Bank Row Pittsfield, MA 01201 Cathy Roth, Sherill Baldwin	413-448-8285 (P) 413-442-0304 (F)	SherillBaldwinredworms@aol.com	We're a coalition of community members in Berkshire County currently working to make a sustainable food system. We've recently completed a two-year study of what we should do and now are looking at 'actions' to implement to begin making our food system stronger and more sustainable.
Bianca International Organic	7174 Marquette, Suite One Montreal, PQ H2E 2C8 Chakib Azizi	514-376-7711 (P)	biologique@videotron.ca www.biorganic.ca	Connect buyers to sellers of organic products, to find buyers the lowest possible prices.
Canadian Farm Business Management Council	Suite 300880 Wellington StreetOttawa, OntarioK1R 6K7	1-888-232-3262 (P) 1- 800-270-8301 (F)	www.esp.mcgill.ca/cfbmc.htm	Over 100,000 farm managers, agri-business professionals, government researchers and agriculture consultants use farm centre, producing one million hits every month and making it the leading farm management web site in the world.
Canadian General Standards Board	Gatineau, Canada K1A 1G6	819-956-0425 (P)	www.pwgc.gc.ca/cgsb/home/index-e.html	Since 1979, the CGSB has delivered independent certification and qualification programs.
Canadian Organic Growers	National Office, 125 South Knowlesville Road, Knowlesville, New Brunswick E7L 1B1	888-375-7383 (P) 506-375-4221 (F)	www.cog.ca	COG is a national information network for organic farmers, gardeners and consumers. Founded in 1975, we are a federally incorporated registered charity.
Connecticut Dept. of Agriculture	765 Asylum Avenue, Hartford, CT 06105	860-713-2500	www.ct.gov/doag/site/default.asp ctdeptag@po.state.ct.us	
Co-op Atlantic (Co-op Feed Division)	123 Halifax Street PO Box 750 Moncton, NB E1C 8N5 Norma Babineau	506-858-6315 (P)	babinor@co-oponline.com	Norma Babineau is in charge of livestock feed sales.
Dalhousie University	Halifax, Nova Scotia B3H 3J5	902-494-2252 (P)	David.Patriquin@Dal.Ca	Biology Department - weeds, nutrients, tillage

Dover Flour Mills Ltd.	140 King Street West Box 3368 Cambridge Ontario N3H 1B6	519-653-6267 (P) 519-653-2125 (F)	www.dovergrp.com/pages/halifaxa.htm	Products: hard and soft wheat flour
Dover Industries Ltd	Halifax, NS John Snow	800-663-6837 (P) 902-423-9075 (F)	doverhalifax@dovergrp.com	The Halifax mill includes a complete mix facility in addition to milling a wide range of flour products. From the Halifax mill, Dover Flour supplies grocery, industrial and foodservice markets in the Maritime Provinces, Quebec and the United States as well as international markets such as Iceland and parts of the Caribbean.
Envirem Technologies Inc.	180 Hodgson Rd. Fredericton, NB E3C 2G4	506-459-3464 (P) 506-453-1332 (F)	sales@envirem.com	Envirem Technologies Inc.® operates composting facilities within New Brunswick, and currently produces compost-based growing mixes, mulches, and liquid and granulated organic products being distributed and sold into the landscape/horticultural products markets in Canada and the US.
Global Organics	Arlington, MA 02476-0003 USA	781-648-8844 (P) ext.11 781 648-0774 (F)	andrew@global-organics.com www.global-organics.com	Global Organics Ltd. (GO) is an importer and exporter of organic commodities and ingredients including certified organic cocoa products, dried fruit, nuts, spices, and sugar cane products.
Great Lakes Organics	PO Box 1330 4492 Progress DrivePetrolia, ON N0N 1R0	519-941-8961 (P) 882-0355 (F) 877-409-9917	519- greatlakesorganic@on.aibn.com	Suppliers of organic pedigreed seed.
Halifax Seed Co. Inc.	5860 Kane Street PO Box 8026, Stn. "A" Halifax, Nova Scotia B3K 5L8	902-454-7456 (P) 902-455-5271 (F)	info@halifaxseed.ca	Retailers of seeds for domestic users. Carrots, broccoli, etc. Most seeds are purchased from the States and England.
Harmony Whole Foods Market	Credit Creek Plaza North 16 First Street Orangeville, ON L9W 3J8	519-941-8961 (P)	info@harmoniymarket.com www.harmoniymarket.com	Cruelty free personal care products, eco friendly cleaning supplies.

Himex Organic Products, Inc.	1071 St-Aimé St, St-Lambert-de-Levis QC G0S 2W0	418-889-9929 (P) 418-889-9774 (F)	www.internova.ca	Beverages made from beans, cereals and grains
Home Grown Organic Foods	2473 Fuller Terrace Halifax, NS B3K 3V9	902-492-1412 (P) 902-492-3050 (F)	info@hgof.ns.ca	Home Grown Organic Foods is a locally owned business dedicated towards satisfying the growing demand for healthy, locally grown, affordable and ecologically sustainable organic food.
Homestead Organics	1 Union Street Berwick, Ontario K0C 1G0	877-984-0480 (P) 613 984-0481 (F)	www.homesteadorganics.com	Homestead Organics is an organic farm service business. Our mission is to develop and serve organic agriculture, primarily in Eastern Ontario but with services stretching across Eastern Canada and northern New England.
Internova Inc.	114 St. Jean North Saint-Claire, Quebec G0R 2V0	418-883-3688 (P) 418-883-2662 (F)	www.internova.ca	Products: organic wheat flour
La Meunerie Milanaise Inc.	Montreal, Quebec H1E 7A8 Robert Beauchemin	514-648-3663 (P)	meunerie@lamilanaise.com www.lamilanaise.com	Our new state of the art production facility (600 m2 - 6000 sq-ft) has a storage capacity for over 300 metric tons of cereal grains in Milan; we also have large storage capacity in Saskatchewan. We now have a production capacity of 110 met tons per week of stone ground organic flour.
Loblaws Companies Ltd	22 St. Clair Avenue East Toronto, ON 4MT 2S7	416-922-2500 (P) 416-922-4395 (F)	www.loblaws.ca	
Maine Department of Agriculture	28 State House Station, Augusta, ME 04333 David Gagnon	207-287-2161 (P) 207-287-5576 (F)	david.gagnon@state.me.us	
Maine Organic Farmers and Gardeners Association	PO Box 170 Unity, ME 04988 Terry Bourgoin	207-568-4142 (P) 207-568-4141 (F)	mofga@mofga.org	
Maritime Certified Organic Growers Coop Ltd	PO Box 20DRR #1Meteghan River, NSB0W 2L0 Al & Simone Geddry	902-769-3076 (P) 902-769-0141 (F)	ageddry@nbnet.nb.ca	M+E36member driven Organic Certifying Body (CB) which certifies the organic integrity and claims of it's members.

Massachusetts Department of Food and Agriculture	251 Causeway Street, Suite 500 Boston, MA 02114 Mary Jordan and Bonita Oehlke	617- 626-1700 (P) 617- 626-1850 (F)	Mary.Jordan@state.ma.us Bonita.Oehlke@state.ma.us www.state.ma.us/dfa/	
New Brunswick Department of Agriculture, Fisheries, and Aquaculture	P.O. Box 6000 Fredericton, N.B. E3B 5H1	General info 506- 453-2666 (P) 506- 453-7170 (F)	www.gnb.ca/0027/index-e.asp	In 2003, approximately 54 producers and processors will be requesting organic certification status in New Brunswick.
New England Livestock Alliance	PO Box 20 Richmond, MA 01254	413-443-8356 (P)	contact@nehbc.org	The New England Heritage Breeds Conservancy (NEHBC) conserves historic and endangered breeds of livestock and promotes their production to advance farmland preservation, biodiversity and sustainable agricultural practices.
New England Natural Bakers	74 Fairview Street East Greenfield, MA 01301	413-772-2239 (P) 413-772-2936 (F)	nenb@nenb.com	NENB offers the finest in organic Cereal Bars, organic Trail Mix Bars, organic, low fat, fat free and premium cereals, nuts, seeds and trail mixes, which are all available in bulk pack.
New Hampshire Dept. of Agriculture, Markets & Food	25 Capitol St. P.O. Box 2042 Concord, NH 03302-2042 Victoria Smith	603-271-3685 (P)	vsmith@agr.state.nh.us	
Newfoundland and Labrador Department of Forest Resources and Agrifoods	PO Box 2006, Herald Building, Corner Brook, NL A2H 6J6 Dave Jennings, Natural Resource Specialist	709-637-2320 (P) 709-637-2589 (F)	Davejennings@gov.nf.ca	
North American Farmers' Direct Marketing Association	62 White Loaf Road Southampton, MA 01073	888-884-9270 (P) 413-529-2471 (F)	http://www.nafdma.com/	The North American Farmers' Direct Marketing Association is the perfect place for family farmers, extension agents, and farmers' market managers to network with each other on the profitability of direct marketing.

North East Organic Farming Association Connecticut	P.O. Box 386 Northford, CT 06472	203-484-2445 (P)	nofact@connix.com www.connix.com/~nofact	NOFA/CT is an independent, non-profit organization dedicated to strengthening the practice of ecologically sound farming, gardening, and yard care. It also helps consumers gain increased access to safe, healthy food.
North East Organic Farming Association Massachusetts	411 Sheldon Road Barre, MA 01005	978-355-2853 (P)	nofa@nofamass.org www.nofamass.org/abc/index.php	NOFA/Mass is a community including farmers, gardeners, landscapers, and consumers working to educate members and the general public about the benefits of local organic systems based on complete cycles, natural materials, and minimal waste for the health of individual beings, communities, and the living planet.
North East Organic Farming Association New Hampshire	4 Park Street Suite #208 Concord, NH 03301	603-224-5022 (P)	nofanh@innevi.com	
North East Organic Farming Association Vermont	PO Box 697 Richmond, VT 05477 John Cleary, Certification Administrator	802-434-4122 (P)		
Nova Scotia Agriculture College/Organic Agriculture Center of Canada	PO Box 550 Truro, NS B2N 5E3 Dr. Ralph Martin, Director Dr. Derek Lynch, Researcher	902-893-7256 (P) 902-893-3430 (F) Main Office	rmartin@nsac.ns.ca dlynch@nsac.ns.ca	
Nova Scotia Organic Growers Association (NSOGA)	3101 Hwy, 236, R R #1 Kennetcook, NS, B0N 1P0 Juanita Barteaux	902-532-5454 (P)	NSOGA@gks.com	
OntarBio Organic Farmers' Co-op Inc.	RR #5 Guelph, ON N1H 6J2 Canada	519-767-9694 (P) 519-767-0978 (F)	info@ontarbio.com http://www.ontarbio.com	
Organic Crop Improvement Assoc	Keswick, NB New Brunswick Chapter Contact: Karen Davidge	506-363-3744 (P)	davidgeb@nb.sympatico.ca	The Organic Crop Improvement Association of New Brunswick is part of an internationally recognized, farm-owned and operated grass roots certification program, consisting of 71 chapters, 265 corporate members, 78 members at large, 12 Community grower groups, 3 supporting members, and 3 private label members.

Organic Crop Producers & Processors Inc.	RR #1, 1099 Monarch Road Lindsay, ON K9V 4R1 CEO, Larry Lenhardt	705-324-2709 (P) 705-324-4829 (F)	ocpp@lindsaycomp.on.ca	OCPP, the Eastern Affiliate of OCPP/Pro-Cert Canada Inc. (OCPRO) provides organic certification and verification services beyond the farm gate for client producers and processors in Eastern Canada, USA, Caribbean, EU and Japan.
Organic Kitchen	2838 Highway 7 Norval, Ontario L0P 1K0 Canada	905-455-2528 (P)	orders@organickitchen.ca www.organickitchen.ca	Our Poultry are raised through their normal growth cycles, being fed a carefully measured diet of only organic soy and grains, and a natural supply of vitamins. Our chickens are also never fed growth hormones, or antibiotics.
Organic Trade Association	PO Box 547 Greenfield, MA 01302	413-774-7511 (P) 413-774-6432 (F)	info@ota.com	The Organic Trade Association (OTA) is the membership-based business association for the organic industry in North America. OTA's mission is to encourage global sustainability through promoting and protecting the growth of diverse organic trade.
Pioneer Organics	Robert & Pamela Corey 483 Bond Road Waterville, NS B0P 1V0	902-538-1280 (P) 902-538-0124 (F)	pioneer.organics@ns.sympatico.ca	Involved in organic crop inputs such as fertilizer. He also uses a greenhouse to grow many organic vegetables.
Pro Organics Marketing Inc	Unit #4, 324 Horner Avenue Etobicoke, ON M8W 1Z3 Debra Boyle, President	416-252-3386 (P) 416-252-3142 (F) 888-874-2360	dboyle@proorganics.com	Pro Organics distributes in every province and maintains working relationships with hundreds of organic farmers throughout North America.
Provalcid Inc.	4572, Marie-Victorin blvd, Varenes (Quebec) Canada, J3X 1P7 Mr. Steve Udvarhely	877-652-3916 (P) 450- 652-7959 (F)	www.provalcid.com/en-services.shtml	The primary goal of Provalcid Inc. is the transformation and marketing of cereals. The company aims to be a leader in the human consumption grain markets such as wheat, oat, soy beans, buckwheat, corn, barley, and rye. Clients from the feeding industry can always count on Provalcid to provide them by-products such as wheat midds and bran, corn distillers grains and corn gluten feed and meal.

Quebec Accreditation Board (Conseil des appellations agroalimentaires du Québec)	12-4913 Lionel Groulx St-Augustine de Desmaures, Quebec G3A 1V1 Mr. Eric Fournier	418-871-9004 (P) 418-877-9245 (F)	info@caaq.org	The CAAQ's mission is to grant accreditation to certification bodies, to make recommendations to the Minister regarding the recognition of designations and to monitor how they are used.
Red Tomato	1033 Turnpike Street Canton, MA 02021	781-575-8911 (P)	www.redtomato.org/index.html	Red Tomato is a nonprofit marketing organization that helps family farmers survive and helps make sure that people can find high-quality produce. We use two strategies: finding markets for family farmers through our brokerage operation and education consumers and trade buyers so that they will seek out products from family farms and those that are locally and ecologically produced.
Rhode Island Department of Environmental Management	Division of Agricultural and Resource Marketing, 235 Promenade St. Providence, RI 02908 Contact: Dan Lawton	401-222-2781 (P)	dlawton@dem.state.ri.us www.state.ri.us/dem/index.htm	Scope: crop and handling Accredited: 10/22/02
Sobey's Inc	123 Foord St. Stellarton, NSB0K 1S0 Nancy Johnson (Bakery Division) Leanne Cail (Processed Division)	902-752-8371 (P)	www.sobeys.ca	In the Atlantic region, Sobeys operates 82 corporate Sobeys supermarkets, 49 Foodland stores, 30 Price Chopper stores, 128 Needs convenience stores and 65 Lawtons drug stores.
Soylutions Inc.	35, rue de Port-Royal Est, 2ème étage Montréal, QC, Canada H3L 3T1	514-864-8999 (P) 514-873-2580 (F)	efournier@soylutions.net	Products: Soy Beverage, Soy Powder, Soy Flour, Soy Nuts, Textured Soy Protein, Isolate Soy Protein.
Speerville Flour Milling CO-OP	152 Speerville Road Speerville, NB E7N 1S0	506-277-6371 (P) 506-277-1006 (F)		Speerville carries about 110 products, from whole grain flours such as spelt, kamut, rye and barley to whole grain pastas and pizzas.
U.S Mills Inc	200 Reservoir Street Needham, MA 02494-3146	781-444-0440 (P) 781-444-3411 (F)	www.usmillsinc.com	U.S. Mills markets the following brands: Erewhon®, Farina®, New Morning®, Skinner's® Raisin Bran and Uncle Sam® Cereal.
University of Guelph	Dept of Food Science Guelph, ON N1G 2W1	519-824-4120 (P) ext 56587 519-824-6631 (F)	mtimmins@uoquelfh.ca	

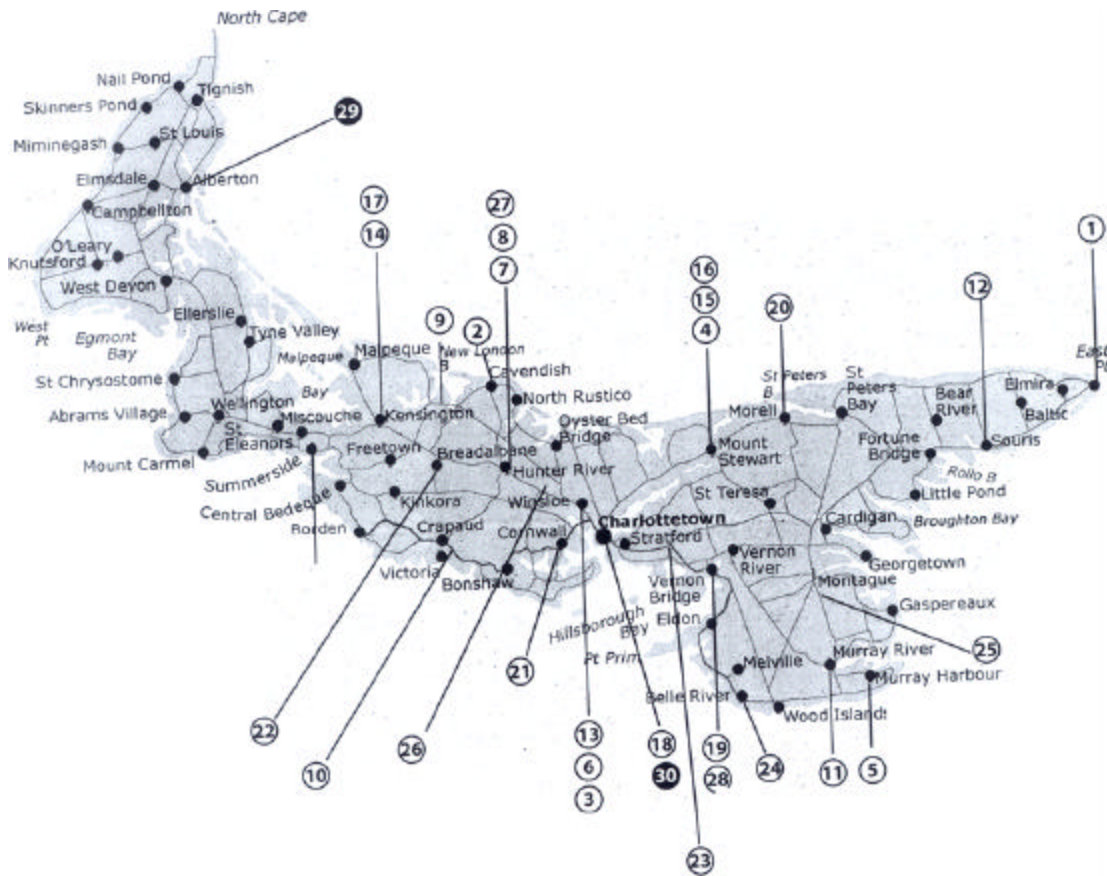
Valley Flaxflour Ltd	Box 89, Middleton Nova Scotia, Canada B0S 1P0 Howard Selig	902-825-1528 (P) 902-825-6295 (F)	info@flaxflour.com
Vermont Dept of Agriculture	116 State Street, Montpelier, VT 05602 Lindsey Ketchel	802-828-3833 (P) 802-828-3831 (F)	lindsey@agr.state.vt.us www.state.vt.us/agric/
Vermont Organic Grains	Box 98 Randolph VT 05060	800-564-8125 (P)	
Wehrmann Grain & Seed Ltd.	460 Sideroad 20 Ripley, Ontario Canada N0G 2R0 Harro Wehrmann	519-395-3126 (P) 519-395-2935 (F)	ingasven@hurontel.on.ca

Howard Selig is the owner of a private dietary counselling and food services consulting business in Middleton, Nova Scotia. Valley Flaxflour is milled flax seed. Nothing is added. Nothing is removed. Premium, whole Canadian flax seeds are milled to a flour consistency in a clean environment dedicated to the production of flaxflour.

Products:
Spelt, Soft wheat, HRS wheat, soybeans, flax, sunflowers, peas (organic)

Appendix 5

PEI Producers, Processors, & Retailers



Prince Edward Island Producers:

1 Kelly Cheverie

East Point, PE
COA 1K0
902-357-2359
MCOG
Wheat, spelt, soybeans, cranberries, turnip, woodland products.

2 Russell Clive Kearnstead

Garham's Lane
Bayview, PE
COA 1N0
902-963-2519
902-963-2099
clivekearnstead@aol.com
MCOG
Clover.

3 Kari and Brad MacInnis-Coles

RR# 10
Winsloe, PE
C1E 1Z4
902-888-4020/368-8970
macinnis-coles@hotmail.com
MCOG
Barley, oats, under-seeded wheat.

4 John and Shauna MacLauchlan

RR#1
Mount Stewart, PE
COA 1T0
902-676-2982
902-676-2982
MCOG
Soybeans, wheat, dry beans, rye, hay, spelt, edible peas, barley, clover, buckwheat.

5 Colin & Gawn Peter

2902 Hwy 18, RR#1
Murray Harbour, PE
COA 1V0
902-962-2392
902-838-2407
colin.peter@pei.sympatico.ca
OCPP
Buckwheat, clover, peas, winter wheat, herbs.

6 Brian & Joanne Turner

RR 9
Winsloe, PE
C1E 1Z3
902-368-1444
902-626-3273
MCOG
Oats, barley, spelt, soybeans,

7 Caleb's Outlook

Jim and Betty Newson
RR#2 Hunter River
New Glasgow, PE
COA 1N0
902) 368-5707/621-0444
902) 368-4857
calebsoutlook@pei.sympatico.ca
MCOG
Hay, cover crops, strawberries, fruit, greenhouse crops.

8 EAMS

Brian and Barbara Craig
RR#2
Hunter River, PE
COA 1N0
902) 368-5788/964-2833
bncraig@isn.net
MCOG
Vegetables, potatoes.

9 Fyfes Family Farm

Alfred Fyfe
Breadalbane
Stanley Bridge, PE
COA 1E0
902-886-2993
fyfefamilyfarm@pei.sympatico.ca
MCOG
Hay.

10 Golden Bay Dairy

Eric and Sharon Ter Beek
RR # 3, St. Peter's Bay
Southampton, PE
COA 2A0
902) 961-2552
MCOG
Barley, pasture, hay.

11 Imagine Farms and Organics

John and Virginia Gundaker
7040 Point Pleasant Road
Murray River, PE
COA 1W0
902-964-4411
maggiesfarmcoop@aol.com
OCPP
Herbs.

12 Inn at Bay Fortune

RR#4
Souris, PE
COA 2B0
902-687-3745
902-687-3540
OCIA-NB
Mixed vegetables, herbs.

13 Kentdale Farms

Mr Fred G. Dollar
1067 Winsloe Rd., RR#9
Winsloe, PE
C1E 1Z3
902-368-1411
902-628-1653
kentdale@pei.sympatico.ca
OCPP
Potatoes, hay, wheat and grain.

14 King Street Organic Farm

Ian MacGougan
430 King St., RR #1
Kensington, PE
COB 1M0
902-836-5366
ian_macgougan@falscomanufactu
ring.com
OCPP
Hay, medicinal plants, soybeans, barley (grain).

15 Nature's Bounty

Joyce & Mike Kelly
RR 3
Mount Stewart, PE
COA 1T0
902-676-2064
naturesbounty@pei.sympatico.ca
MCOG
Mixed vegetables.

16 New Way Botanicals

Roger & Karen Townshend
397 Blooming Point Rd., RR# 1
Mount Stewart, PE
COA 1T0
902-676-3121
902-676-2247
aqualibra@pei.sympatico.ca
OCPP
Clover, echinacea, garlic, hawthorn berries, roschips, hay, asparagus.

17 Ogle Farm

Gary Ogle
RR#6 Grahams Road
Kensington, PE
COB 1M0
902-368-7333/886-2353
ogle@auracom.com
MCOG
Mixed vegetables, pasture, cover crops.

18 PEI Food Technology Centre

Ebu Budu-AMouko
101 Belvedere Avenue
Charlottetown, PE
C1A 7N8
902-368-5548
902-368-5549
lgan@gov.pe.ca
OCPP
Research and development.

19 RJC Farms

Phillip McInnis
1266 Earnscliffe Rd., RR#3
Vernon Bridge, PE
COA 2E0
902-651-2468
902-838-3439
rjcfarms@isn.net
OCPP
Milk thistle, valerian, St. John's Wort, dandelion, echinacea, mixed vegetables.

20 Sea Spray Farms

Reg Phelan
RR #2 Byrne Road
Morrell, PE
COA 1S0
902-961-2428/368-2762
902-961-2428
rphelan@pei.sympatico.ca
MCOG
Brussels sprouts, potatoes, compost, turnips, spelt, cabbage, hay, broccoli and lobstermeal.

21 Seven Fold Herbs

Valerie Wells
RR 2
Cornwall, PE
COA 1H0
902-675-4239
vwells@isn.net
OCIA-NB
Herbs.

22 Springwillow Farm

Raymond Loo
Smith Road
Breadalbane, PE
COB 1M0
902-964-2582/886-2303
loofarm@isn.net
www.springwillow.com
OCIA-NB MCOG
Potatoes, cattle, mixed vegetables, small fruit, hay, pasture.

23 Springwillow Medicinal Herbs

Margie Loo
RR#3
Belfast, PE
COA 1A0
902-659-2081
mlloo@pop.web.net
MCOG
Medicinal and culinary herbs. Greenhouse and field vegetables, strawberries, currants, elderberries, woodland.

24 Sunny Gairloch Farm

Dirk Groenberg
RR#3
Belle River, PE
COA 1B0
902) 659-2570
MCOG
Vegetables, mixed tree fruit, squash, poppies, dry beans, barley, buckwheat, soybeans, garlic, lentils, cole crops, pumpkins, squash, carrots, potatoes.

25 Sweet Clover Farm

Gary & Junellen Clausheide
RR 1
Valleyfield, PE
COA 1R0
902-838-2710
sweetcloverfarm@pei.sympatico.ca
MCOG
Mixed vegetables, milling wheat.

26 Trilby Meadow Farm

James Rodd
RR 10
North Milton, PE
C1E 1Z4
902-368-2772
MCOG
Seed potatoes, carrots.

27 Triple Harts Farm

Ron and Sara Walsh
PO Box 15
Hunter River, PE
COA 1N0
902-964-3264
902-964-3264
saralipp@islandtelecom.com
MCOG
Garden vegetables, herbs,
apple trees, hay, pasture.

28 Veinot's Organic Gardens

Allister & Margaret Veinot
RR#1, 783 Avondale Rd.,
Vernon Bridge, PE
COA 2E0
902-892-9141/651-2092
902-651-2092
amveinot@pei.sympatico.ca
MCOG
Mixed vegetables, fruit, pasture,
hay, seed potatoes, mixed grain.

**Prince
Edward
Island
Processors:****29 Hardy's Organic Products**

John Hardy
558 Dock Rd., RR#1
Alberton, PE
COB 1B0
902-853-4014
902-853-4344
jhardy@pei.sympatico.ca
OCPF
Tofu- (bulk, firm, soft, herb).

30 Vesey's Seeds

Gary Ogle
Route 25,
York, PE
C1A 8K6
902-368-7333
902-368-3980
gary@veseys.com
www.veseys.com
MCOG
Shipping and handling of organic seed.

**Prince
Edward
Island
Retailers:****Brett Bunson**

RR3
Belfast, PE
COA1A0
902-838-2973
Fair trade and organic coffee.

Just Juicin'

62 Queen St.,
Charlottetown, PE
C1A 4A6
902-894-3104
Juice bar.

Nature's Harvest

134 Kent St
Charlottetown, PE
C1A 8R8
902-566-1823
Health food store.

Nature's Harvest

670 University Ave
West Royalty, PE
C1E 1H6
902-892-5955
Health food store.

Nature's Way

123 Queen St.
Charlottetown, PE
C1A4B3
902-892-3034
Retailer of organic and gourmet
specialty foods.

Root Cellar

34 Queen St
Charlottetown, PE
C1A 4A3
902-892-6227
Health food store.

Sharon's Health Food Store

Bloomfield Station, PE
COB 1E0
902-859-1818
Health food store.

Turning Point Natural Foods

75 Main St N
Montague, PE
COA 1R0
902-838-5197
Health food store.