

# Research Needs Assessment of Maritime Organic Farmers



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Truro, NS**

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## Acknowledgements

Thank you to all of the producers who took time to fill in the survey and convey their opinions and insights. The response from so many farmers at such a busy time of year (late winter/spring) was truly appreciated.

This Maritime survey is part of a national survey undertaken by the OACC in all provinces except Quebec and Newfoundland. The template for this survey (see Appendix 1) was developed by Brenda Frick in consultation with researchers, government personnel and farmers in Saskatchewan and Andy Hammermeister of OACC. The survey data was entered by Joanne Thiessen-Martens, Kristen Lowitt, Tracy Salisbury, and Roxanne Beavers. The report was written by Karen Nelson and was reviewed and edited by Andy Hammermeister.

This report follows the format of the OACC National Report. This facilitates comparisons of Maritime data with the national average. Where appropriate, these two documents share entire passages. The national study can be found at [www.oacc.info](http://www.oacc.info).

Distribution of this survey would not have been possible without assistance from the organic certifying bodies in the Maritimes who mailed survey packages to members or clients or provided us with mailing lists.

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*Agriculture and Agri-Food Canada (AAFC) is pleased to participate in the production of this OACC Canadian Organic Needs Assessment Survey. AAFC is committed to working with our industry partners to increase public awareness of the importance of the agriculture and agri-food industry to Canada. Opinions expressed in this document are those of OACC and not necessarily those of AAFC.*



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## Executive Summary

A total of 169 surveys were distributed to organic and transitional farmers in the Maritime Provinces, with 69 returned for a response rate of 40.8%. The top research needs identified in this survey will be used to inform a prioritization process for research projects in different sectors.

Farmers were distributed into six major production sectors (e.g. crops, livestock, vegetables, etc.) based on which products they currently produce and intended to produce in the near future. *Vegetable* producers were the dominate production sector in the Maritimes, with 61% of the respondents. This was followed closely by *field crop* and *fruit and berry* producers with a response rate of 52% for both sectors. Average farm size reported by respondents across all sectors was 193 acres, of which 117 were certified organic. Overall, *dairy* producers reported the greatest amount of land under organic certification with 414 acres. This was followed by *field crop* and *livestock* producers with 229 and 208 acres under certification. Horticulture crop producers reported the least amount of land under organic certification (60-70 acres).

The majority of the producers responding to the survey indicated that they were new respondents who have had less than 5 years of experience farming organically. While only 11% have had more than 21 years experience in organic agriculture. Despite the large number of new entrants, the majority of the farmers were between the ages of 40-69 with only 5% under the age of 30. This suggests that many respondents had entered organic farming either after conventional farming or as second career choice.

Producers were highly interested in research performed *on-farm* and not at *regional research centers* and in *collaboration between researchers and producers with research conducted using farm scale equipment*. Farmers commented that on-farm research managed similar to a commercial farm was related more directly to on-farm practices than research conducted at regional research and demonstration farms.

Among animal related issues, the top rated research needs among all producer categories included *parasites, feed* and *grazing*. *Livestock* producers (not including dairy) reported that they were slightly more interested in *parasites* and *breeds*, while *dairy* producers ranked *grazing* and *manure management* highest overall. *Housing* issues were of least concern to both producer categories.

Under crop production, Maritime producers ranked the top three needs as: *enhancing natural insect controls, cultural insect controls, and beneficial rotations for specific problems*. This highlights the emphasis Maritime farmers place on the use of integrated practices for pest control, whereas the use of organic pesticides and insecticides were ranked low. Insects of main concern to Maritime growers included: apple maggots, army worms, wireworms, corn

earworm, cucumber beetles and European sawfly. Overall, *herb and spice* producers were more interested in plant related issues.

Within the soils section: *biology to improve existing life* and *soil fertility and crop rotations* were ranked highest, while *salinity of the soil* and *minimizing erosion* were ranked lowest. Producers described the need for further research into inoculants and compost teas for the addition of organisms to the system to enhance its soil biology. Types of rotations that would enhance fertility and minimize disease and insect issues were of greatest importance to farmers.

*Quality and nutrition of organic foods* was scored highly by all producer sectors in the Maritimes. *Quality and nutrition of organic horticultural crops* followed closely, while *quality and nutrition of organic animal products* was ranked the lowest. *Herb and spice* producers in the Maritimes were considerably more interested in *value-added product research* than the other sectors. Producers commented that more research into the health benefits of organics foods compared to conventionally produced products would be of interest.

When assessing the *marketing, economics* and *processing* needs of producers in the Maritime Provinces, the *economics* categories was overall ranked lowest. However, within this category mixed farm production economics was ranked the highest as many of the farmers indicated that they operated mixed farms. The need for processing facilities was moderately ranked by all sectors, with the need for *assistance in developing value-added products* ranking the highest, though value-added products were ranked 3<sup>rd</sup> for the quality and nutrition section. Overall, the need for *consumer education on the organic standards* and *benefits* through the use of campaigns such as the *Buy Local campaigns* were ranked the highest for all producer sectors.

Access to market information and research in organics issues was ranked highly, with producers ranking *field tours, conferences* and *fact sheets on organic practices* as their top methods for receiving extension and technology information. Majority of the Maritime respondents indicated that the use of *distance-education programs* and *university-level degree courses* were of lowest need. Maritime respondents indicated that they currently receive information on organic from the internet and email, while many also suggested that regional workshops where than can interact with regional specialists or other experienced famers would be of interest.

The most significant barriers to the growth of the organics sector described by Maritime producers are the lack of access to markets. Many farmers commented that there is a need for a coordinated marketing plan and more advertising by local and larger supermarkets of organic produce. Lack of labour, buyers and brokers, processing facilities and high transportation costs are also a barrier as these resources are not easily met in the Maritimes.



With this need for more infrastructure, many farmers commented that “government red tape” and “costs due to the bureaucracy in the certification processes” are affecting the growth of organic farming. There were few comments on the opportunities for organic agriculture in the Maritimes. Many farmers commented that public education through campaigns such as the Buy Local has informed the public of the benefits of organic food. Organic agriculture has also opened doors for new entrants into the farming sector operating on a smaller scale or at least to start out smaller. Though many Maritimers noted the opportunities, they were still cautious that many barriers still laid in their way.



## **Maritime Research Needs Survey Summary**

In the winter and spring of 2008, the Organic Agriculture Centre of Canada (OACC) conducted a research needs survey of organic producers across Canada. This document is a summary of the results of all Maritime respondents of the research needs survey. Readers are encouraged to review the national survey summary for a more detailed analysis of results from the whole country.

### **1. Introduction**

The foundation for growth in the organic sector has always rested on the farmers who have brought organic to the forefront of agriculture. The development of organic in Canada rests firmly on the success of the farmers. In considering this, the Organic Agriculture Centre of Canada (OACC) has endeavored to consult with organic farmers whenever possible to identify barriers and opportunities that can be addressed by Canadian research. The OACC has worked closely with the Expert Committee on Organic Agriculture, which includes representation from across the country and from all sectors of organic agriculture to identify research priorities. In 2007, the OACC received funding from Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-food (ACAAF) program to inventory organic research in Canada and prioritize organic research needs. A multi-state project has resulted, involving identification of trends affecting the Canadian organic sector, opportunities and threats arising from these trends, strengths and weaknesses in the organic sector for addressing the opportunities and threats, and finally a research prioritization process arising from the preceding process. A key component of this process has been conducting a national survey of organic producers in Canada, asking them to rate the importance of different areas of research. This report outlines the findings for the Maritime Provinces.

#### ***1.1. Survey Description***

This survey was designed based on the known key subject areas requiring research in organic agriculture (Appendix 1). The survey primarily included questions relating to production (soils, crops, pests, and livestock) but also included sections related to production economics, quality and nutrition of organic food, sustainability, design of research and extension needs. Questions also were included to characterize the farmers by their categories of production and demographics.

The respondents were asked for input on as many or as few sections as they desired to fill in. If a farmer chose not to respond to a question, it was not included as part of the analysis. The importance of a statement or question was ranked on a five point scale. Most survey sections included a space for comments. There were some minor differences between versions sent to different provinces; those questions which were not asked in each region are noted with an asterisk (\*).

The report is divided into six sections to match the sectors identified by the Expert Committee on Organic Agriculture. The Expert Committee, originally founded by OACC, was established to provide a national forum for exchange of information and scientific advice about research priorities in organic agriculture (see: [http://oacc.info/ResearchDatabase/res\\_priorities08.asp](http://oacc.info/ResearchDatabase/res_priorities08.asp)). Two additional sections relating to the execution and communication of research (Research Management and Extension) are also discussed.

### **1.2. Survey Distribution and Response Rate**

With the assistance of our partners, OACC distributed 169 surveys to organic or transitional producers in the Maritimes. There were a total of 69 respondents, for a response rate of 40.8%.

For each sector (i.e. crops, livestock, vegetables, etc.) the analysis included respondents from both current producers and those planning to enter the sector in the near future. The analysis considered that a producer who either currently produces or plans to produce a commodity in the near future was part of a given sector. The analysis of the groups by sector means that a producer with a mixed farm would be considered as part of the field crop, livestock and vegetable sectors, for example, and their rankings would be considered for all three categories.

### **1.3. Respondent Demographics**

The 69 respondents were classified into six major production sectors based on which products they currently produce and intend to produce in the near future. The **field crops** sector included producers focused on cereals, oilseeds and pulses. **Livestock** producers included: beef, swine, sheep and poultry, while **dairy** producers were assessed separately from other livestock producers. Table 1 specifies the breakdown of the current and future producers by sector and product.

Among the 69 respondents, **vegetable** producers are the dominant farming sectors in the Maritimes (61%). This was followed by **fruit and berry** and **field crop** producers who both had a 52% response rate. Among the **field crop** producers, the cereals and forages were the dominate categories produced by respondents, while pulses were least commonly produced.

Of the Maritime respondents, 33% indicated that they produce **livestock** (or plan to produce in the future). Of the **livestock** producers beef and poultry producers represented approximately half of the producers, followed by swine (30%) and sheep (26%) producers.

Approximately 30% of the respondents represented **herb and spice** producers (Table 2), while only 7% of the respondents were **dairy** producers.

Many respondents indicated that they contribute to more than one production sector, with over half of the producers of organic farmers in the Maritimes operating mixed farms.

**Table 1. Summary of 69 Maritime respondents by sector and product.**

	Current producers	Future producers*	Total producers: current plus future		
			Total number	% of all respondents	% of sector
<b>All</b>			<b>69</b>	<b>100%</b>	
<b>Field crops</b>	<b>29</b>	<b>7</b>	<b>36</b>	<b>52%</b>	
Cereals	21	10	31		86%
Oilseeds	8	5	13		36%
Pulses	4	0	4		11%
<b>Vegetables</b>	<b>39</b>	<b>3</b>	<b>42</b>	<b>61%</b>	
Vegetable	39	3	42		100%
<b>Livestock</b>	<b>16</b>	<b>7</b>	<b>23</b>	<b>33%</b>	
Beef	9	3	12		52%
Swine	3	4	7		30%
Sheep	3	3	6		26%
Poultry	8	4	12		52%
<b>Dairy</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>7%</b>	
<b>Fruit and Berry</b>	<b>32</b>	<b>4</b>	<b>36</b>	<b>52%</b>	
Fruit	32	4	36		100%
Berry	0	0	0		0%
<b>Herbs and Spices</b>	<b>15</b>	<b>6</b>	<b>21</b>	<b>30%</b>	

\*includes only those who indicated plans to produce in the future but no current production in that category.

**Table 2. Summary of survey respondents by producer category.**

	Field Crops	Livestock	Dairy	Vegetable	Fruit/ berry	Herbs/ spices
	---number or percentage of producers---					
<b>Current producers plus those who intend to produce in the future</b>	36 <b>52%</b>	23 <b>33%</b>	5 <b>7%</b>	42 <b>61%</b>	36 <b>52%</b>	21 <b>30%</b>
<b>Currently producing organic products</b>	29	16	5	39	32	15
<b>Plan to produce in future</b>	7	7	0	3	4	6

In the Maritimes, respondents indicated that the average total farm acreage across all sectors was 193 acres, 117 acres of which was certified organic (Figure 1). Land size was broken down into three categories: *cultivated*, *pasture/grazing* and an "other" which accounted for woodlots, maple syrup brush, wild harvest, or perennial fruits /orchards. The "other" category also included those who did not indicate their land use.

When broken down between the agricultural sectors for each of the land uses, **dairy** producers reported the greatest amount of land under organic certification (414 acres), of which the majority is under *cultivation* (Figure 2). **Field crop** and **livestock** producers followed with an average of 229 and 208 acres, correspondingly under production, of which 159 and 147 acres were under *cultivation*. Overall, **vegetable, fruit and berry** and **herb and spice** producers in the Maritimes indicated that they have 60-70 acres in production and this is somewhat evenly distributed among the three land uses.

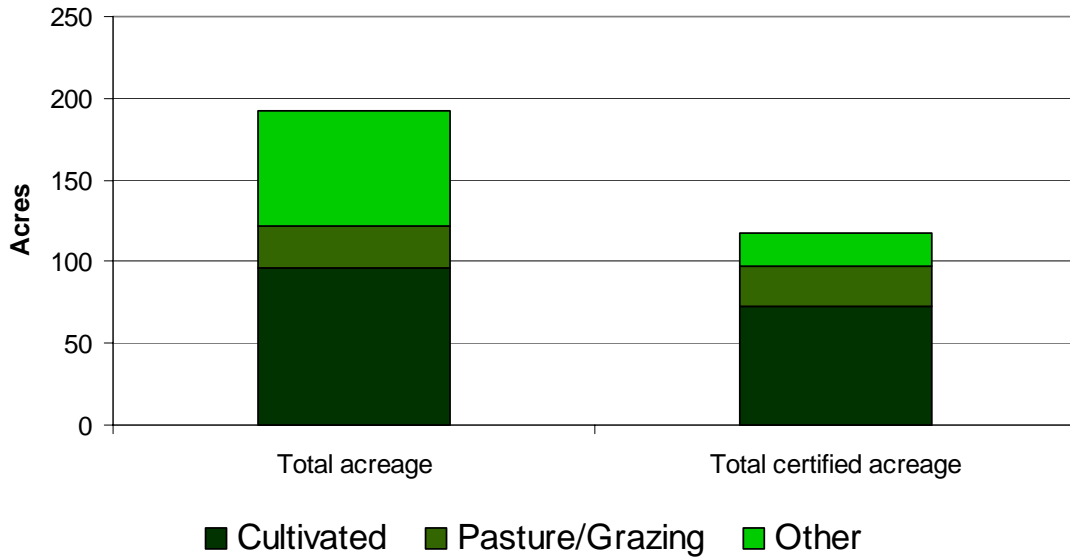


Figure 1. Average acreage by type among respondents.

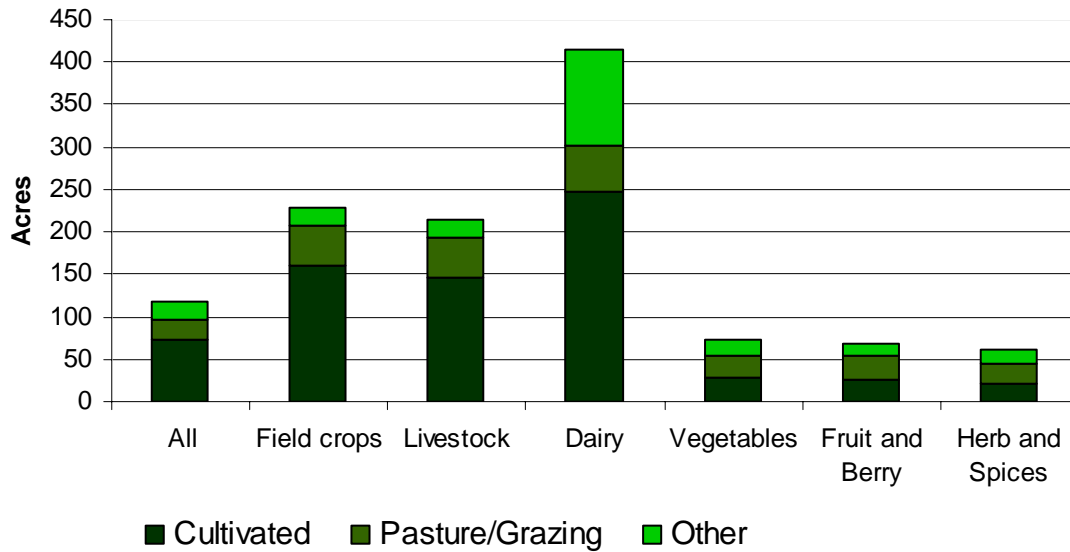
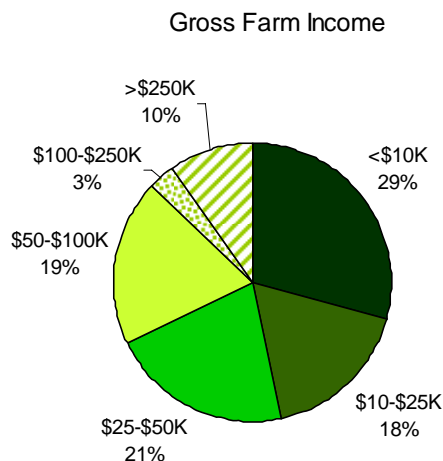


Figure 2. Average certified organic acreage of respondents by agricultural sector.

When assessing overall gross income for the Maritimes across all six sectors, approximately half (47%) of the respondents indicated that their farm

income is below \$25,000; suggesting that just under half of the producers are small farm operators. Approximately 43% of the respondents reported gross farm incomes between \$25,000 - \$250,000; while large operations (>\$250,000) made up 10% of survey respondents (Figure 3).



**Figure 3. Gross income of respondents.**

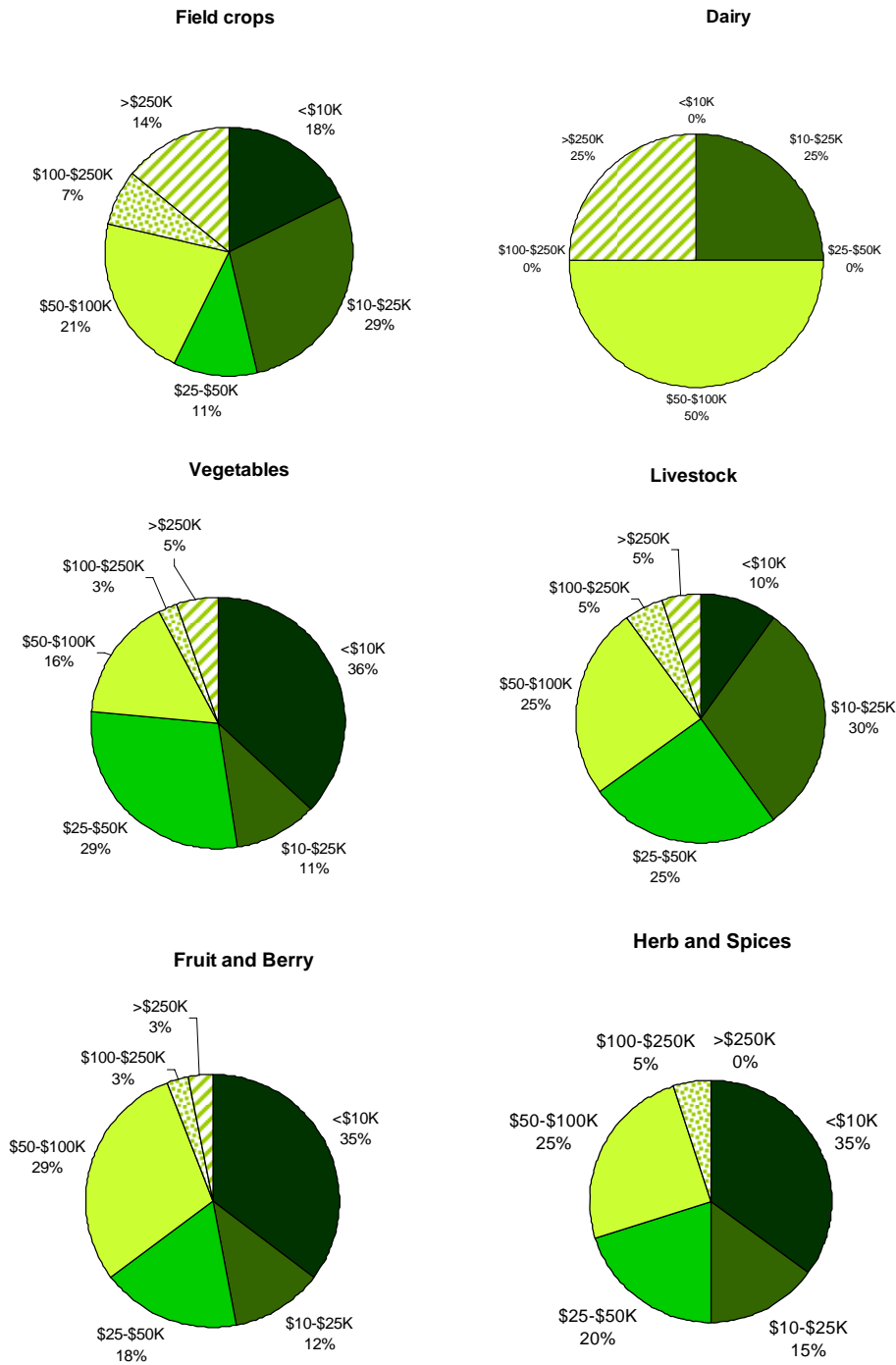
In terms of gross farm income across the six agricultural sectors: **vegetable, fruit and berry** and **herb and spice** sectors were similar. Approximately 50% of the respondents from these sectors reported incomes below \$25,000. In terms of the small acreage reported by these sectors, this suggests that these sectors are predominately small farm operators. **Fruit and berry** and **herb and spice** had similar demographics with 18-20% reporting gross incomes between \$25,000-50,000 and 25-30% making \$50,000-100,000. Just 5% reported gross incomes above \$100,000 (Figure 4).

Only five **dairy** farmers responded to the survey in the Maritimes, resulting in farmers being categorized into only three income brackets: 25% reported gross incomes ranging from \$10,000-\$25,000; whereas the majority (50%) reported gross income within \$25,000-\$50,000; while 25% reported income above \$250,000.

**Field crop** producers reported the greatest number of large farm operators (other than dairy), with 14% of incomes above >\$250,000. The majority of **field crop** producers in the Maritimes are also small farm operators, with 47% reporting gross income below \$25,000. 11% reported income between \$25,000-\$50,000, while 28% reported incomes between \$50,000- \$250,000.

**Livestock** producers were categorized into three main income brackets: with 30% of the respondents reporting income ranges of \$10,000-\$25,000; and 50% of the respondents evenly divided between the \$25,000-\$50,000 and \$50,000-\$100,000 income bracket.

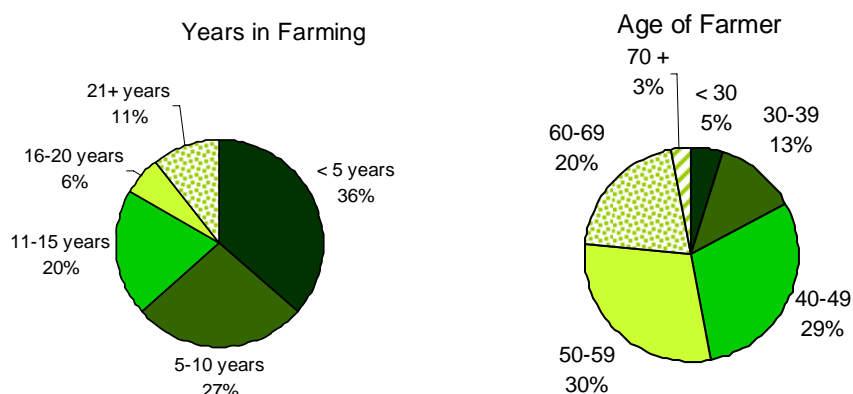




**Figure 4. Gross income of respondents by sector.**

Majority (36%) of respondents reported that they are relatively new entrants (<5 yrs experience) to organic agriculture. Twenty-seven percent reported that they had between 5-10 years of experience organically farming, and 26% had between 11-20 years of organic farming experience. Only 11%

reported that they had more than 21+ years of experience in organic farming (Figure 5). This was surprising as the majority (59%) of the respondents indicated that they were between the ages of 40- 50, while only 5% were under the age of 30. Twenty percent reported that they were between the ages of 60-69, while 3% of the farmers were over the age of 70+ (Figure 5).



**Figure 5. Respondent number of years in organic farming and age.**

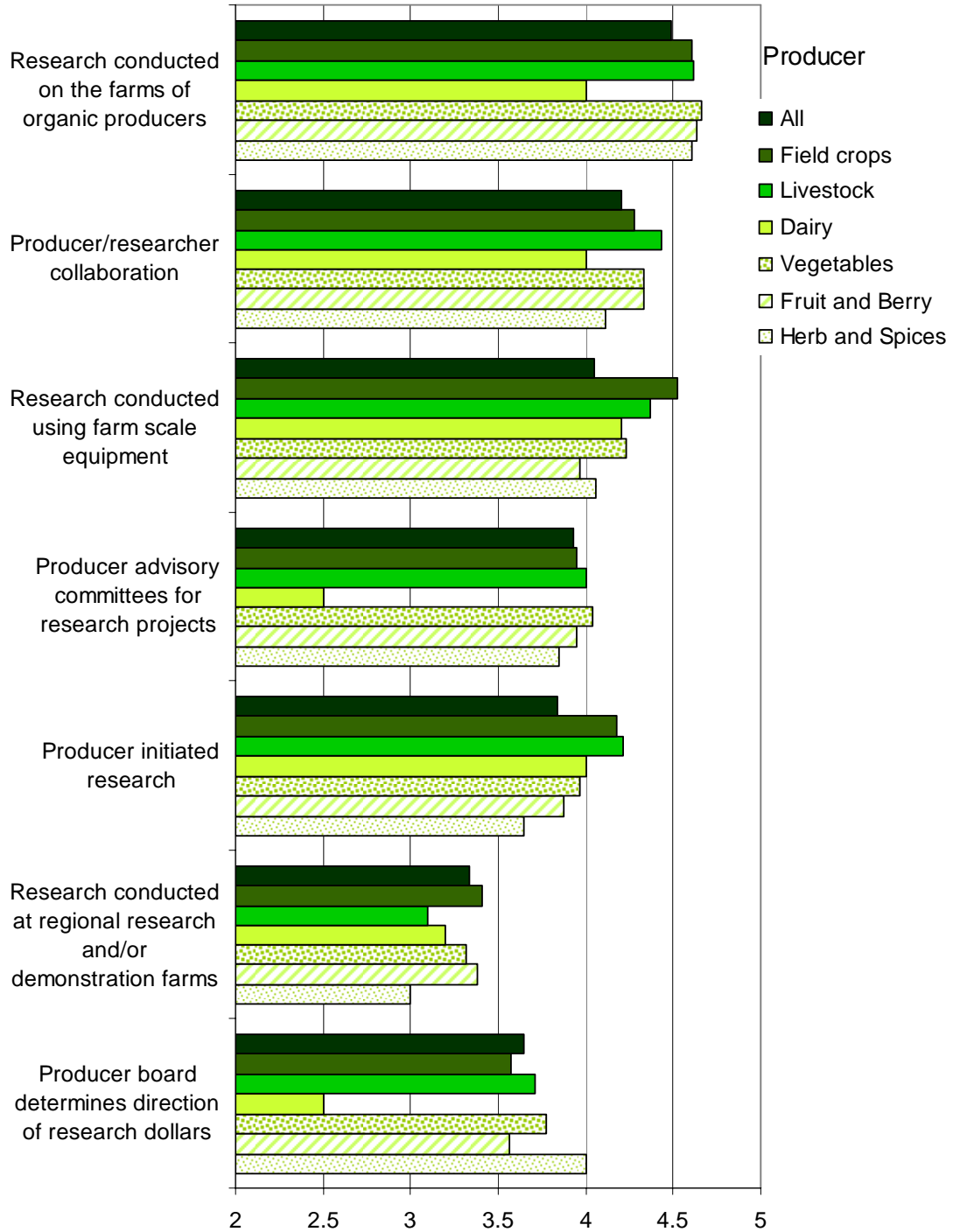
The breakdown of age for each of the sectors was similar to the overall age structure of the respondents reported in Figure 5, with the majority of the respondents reporting that they are between the ages of 40-59. While **livestock, fruit and berry, field crop** and **vegetable** producers reported less than 8% of the farmers were under the age of <30. **Dairy and herb and spice** respondents did not report any farmers (0%) under the age of <30.

## 2. Research Management

This portion of the survey attempted to gauge organic producer opinions about where and how research should be conducted and the level of involvement of producers in research. These do not relate directly to a research need and so are not included in the larger needs summary.

Producers from each of the agricultural sectors overall reported that *research conducted on the farms of organic producers* was the top research management need. Farmers commented that this was of more value as “regional research centers [are] managed rather differently” and is therefore not as directly related to on-farm practices. One farmer also commented that “researchers and farmers need to better understand the pitfalls and successes of field research versus in the lab or computer generated”. Producers also indicated the *producer/research collaboration* (ranked 2<sup>nd</sup>) and the use of *producer advisory committees* for research projects (ranked 4<sup>th</sup>) were of need for determining future research. Respondents commented

that farmers need to be addressed in research as “farmers know what their needs are” but “do not have the time to initiate the research”. The third ranked need by respondents was the use of *research conducted using farm scale equipment* (ranked 3<sup>rd</sup>) overall. Of lowest need was *research conducted at regional research and demonstration farms*.



**Figure 6. Research management need ratings.**

Note: A rating of 5 indicates a very important need, 1 indicates a less important need.

**3. Top 15 Research and Marketing Needs Identified by Producers in Maritimes**

This is a brief overview of the top ranked research needs across all sectors for the Maritimes. The sections following will go into greater depth about each of these research need rankings. Maritime respondents emphasized the need for research into the control of *livestock parasites* and *marketing* as their top three needs. Farmers indicated a need for more *marketing* which emphasized the *buy local* strategy and also increased *consumer education about organic benefits*. Respondents ranked the need of soil research as their 4<sup>th</sup> and 6<sup>th</sup> needs, indicating that more understanding and emphasis on *soil biology* and *soil fertility and crop rotations was needed* (Table 3).

**Table 3. Top 15 research needs ratings among all Maritime respondents.**

Priority	Section	Project	Average	n
1	Animals	Livestock parasites	4.62	21
2	Marketing	Buy local campaign	4.50	59
3	Marketing	Consumer education on organic benefits	4.39	57
4	Soil	Biology - improve existing soil life	4.32	59
5	Health and Food	Quality and nutrition of organic foods - overall	4.24	45
6	Soil	Soil fertility and crop rotations	4.24	62
7	Marketing	Consumer education on organic standard	4.23	53
8	Marketing	Assistance in developing value added products	4.19	52
9	Plants	Enhancing natural insect controls	4.17	59
10	Ecological Systems	Soil quality	4.16	55
11	Health and Food	Quality and nutrition of organic horticulture crops	4.15	39
12	Animals	Livestock feed	4.13	16
13	Ecological Systems	Biodiversity	4.09	56
14	Marketing	Local procurement for institutional buyers	4.08	51
15	Ecological Systems	Pesticide reduction	4.08	52

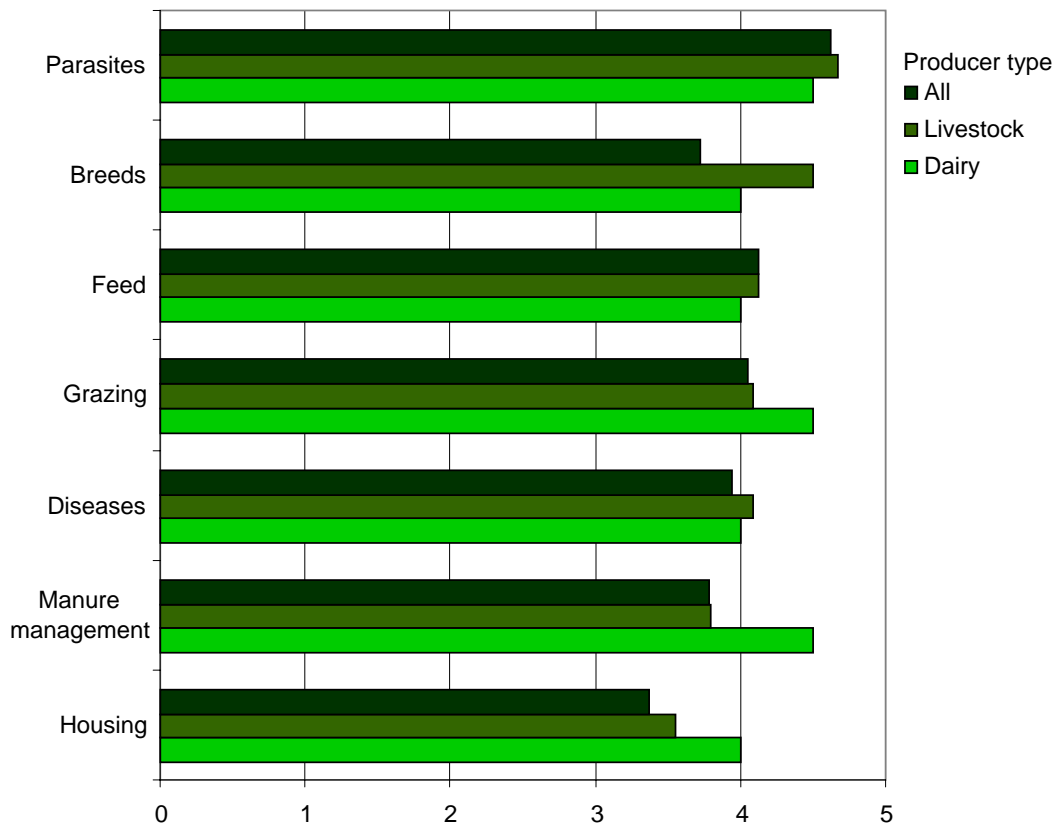
<sup>z</sup> This is the average importance rating of all individuals who responded to the question; 5 indicates a very important need, 1 indicates a less important need. In all cases, responses ranged from a rating of 1 to 5 (i.e. responses ranged from less important to very important). Blank responses to a question were not included in the analysis, hence, the variation in the number of respondents to each question.

<sup>y</sup> 'n' is the total number of respondents to this question.

#### 4. Animals

Overall, respondents who raised livestock and dairy cattle indicated that *parasites*, *feed* and *grazing* were of top research need for this category. By producer category, **livestock** producers ranked *parasites* and *breeds* as their top needs, whereas *housing* and *manure management* were ranked lowest. For **dairy** producers, *grazing* and *manure management* were ranked highest as their top to research needs. As there were only 5 respondents for dairy farmers, all categories were ranked fairly high (Figure 7).

Farmers commented that parasites of concern included: internal and external parasites for sheep and swine, many also mentioned that other pests of concern were lice, warbles, and flies. Many farmers also noted that research into foot problems and mastitis would be of benefit. Other respondents commented that more research and information on the use of “cold pressed oilseed meals that are good for pigs and chicken for protein to maximize on-farm organic feed” were needed.



**Figure 7. Research needs rating for livestock issues by producer category.**

Note: The livestock category includes all livestock except dairy production. Rating of 5 indicates a very important need, 1 indicates a less important need.

## 5. Plants

### 5.1. General

Organic crop producers in the Maritimes indicated that the need for insect controls and rotations for various issues were of top need to all producer sectors. The top three needs listed by producers: *enhancing natural insect controls*, *cultural insect controls*, and *beneficial rotations for specific problems*. This highlights the emphases Maritime farmers place on the use of integrated practices for pest control whereas the use of organic pesticides and insecticides were ranked low (Figure 8).

Overall, the horticultural crop (**vegetable, fruit and berry, herb and spice**) producers ranked the need for insect controls the greatest, followed by **livestock** producers.

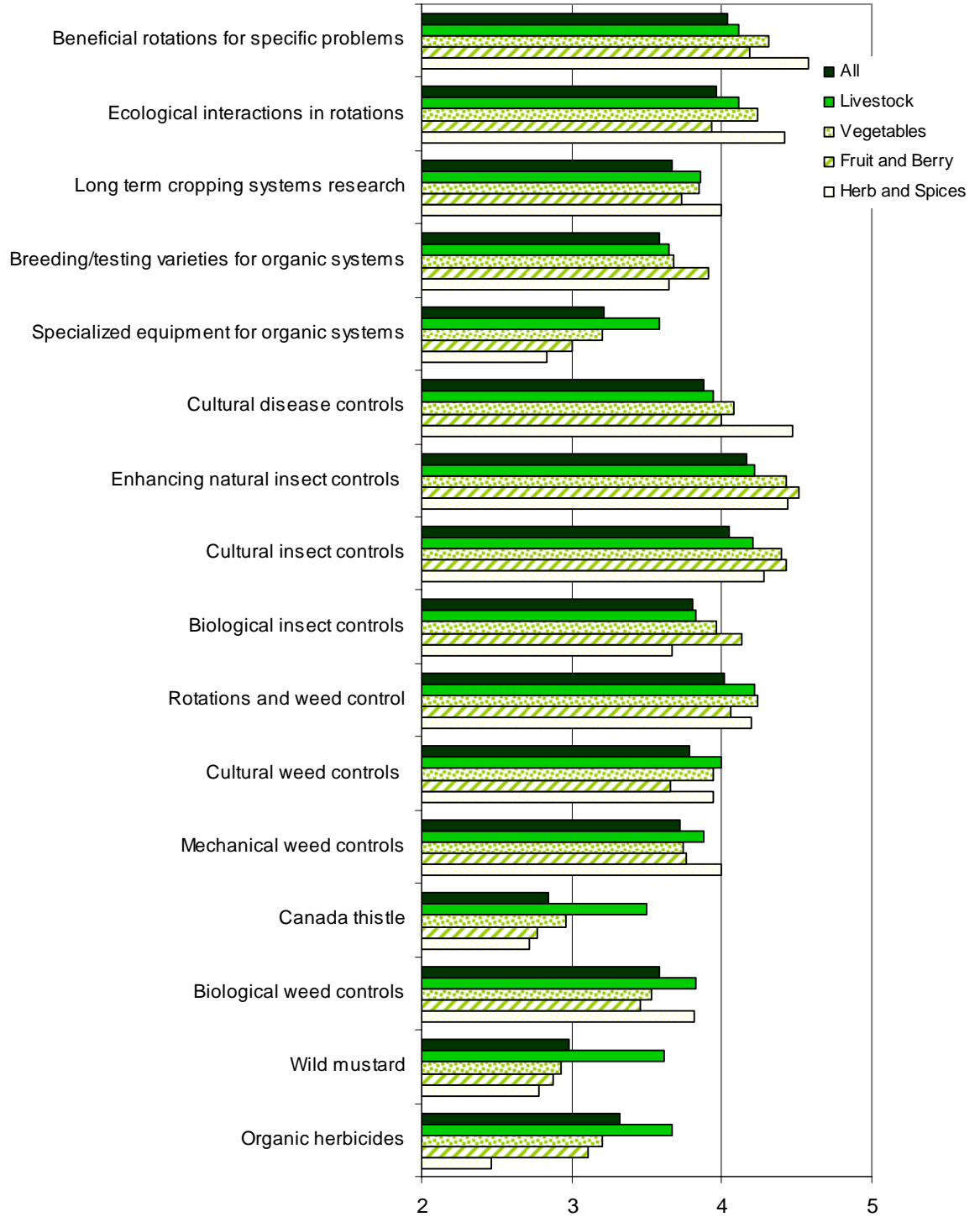
### 5.2. Weeds

All producer sectors ranked the use of *rotations for weed control* and the use of *cultural weed control* higher than mechanical and biological methods. The use of organic herbicides was overall ranked low by all producer sectors. Farmer's commented that the most common weeds of concern to their fields in the Maritimes include: couchgrass, lambs quarters, chickweed, and quackgrass.

Weed research of particular importance to Maritime producers noted in the comments section were concerning the types of mulch, such as peat, saw dust, plastic, biodegradable plastics, etc that could assist in reducing weed pressure in high bush blueberry production and for establishing grape vines.

### 5.3. Insects

Maritime producers from each of the producer types indicated that *enhancing natural insect controls* and *cultural insect controls* was of greatest interest and priority as this relied on the natural system and use of tillage operations to manage pests (Figure 8). Farmers commented that the pests of most concern to the Maritimes were apple maggot, army worms, wireworms (especially to potato producers), fruit flies in blueberries, corn earworm, cucumber beetle and European sawfly. A few farmers commented on the need of methods for attracting spiders and song birds as natural predators for insect control. Research into the use of dragonflies, toads, salamanders and trap crops as a natural insect control was also of interest. One farmer also mentioned if the use of transplants versus direct seeding would assist in terms of plants surviving against an insect attack.



**Figure 8. Research needs ratings for plant issues by producer category.**

Note: A rating of 5 indicates a very important need, 1 indicates a less important need.

- Indicates a need that was not included in all provincial surveys.

#### *5.4. Disease*

All producers, particularly **herb and spice** producers ranked the use of *cultural disease controls* of greatest interest for minimizing disease issues on their farms (Figure 8). Farmers commented that they were interested in information on the impact of adding nutrients and minerals to the soil would have on diseases such as potato scab. Corresponding to these comments, farmers were also interested in research that would assist farmers in recognizing fields that are susceptible to particular disease due to soil and climatic conditions. A proportion of the farmer's comments indicated their interest in the effectiveness of compost teas in building soil health and its relationship to minimizing disease outbreaks. Disease of concern to Maritime farmers included: downy and powdery mildew, potato scab, blight, and apple scab (Figure 8).

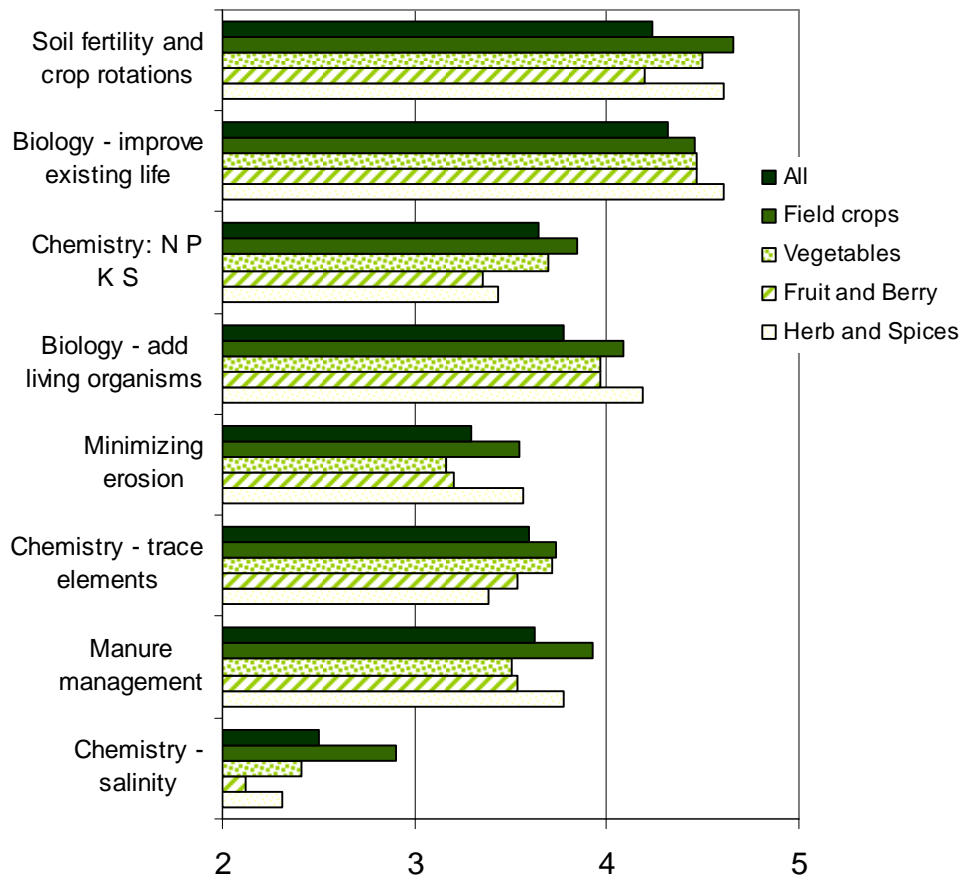
#### *5.5. Other*

Though breeding and testing varieties were ranked relatively low overall by all producer types many farmers commented that they would like to see research into: producing shorter season varieties, breeding potatoes for lower nutrient needs, carrots with root worm resistance and more organic varieties with resistance to common diseases. They also commented that they would like testing of new varieties (e.g. apples) for organic production.



## 6. Soils

For the soils section, all the producer categories ranked the *biology to improve existing life* as their top need, followed closely by *soil fertility and crop rotations*. Overall, the lowest ranked need for soil issues among the producer categories was the *salinity* of the soil and minimizing erosion (Figure 9). Among the producer categories **field crop**, **vegetable** and **herb and spice** producers ranked *soil fertility and crop rotations* as their top research needs, while **fruit and berry** producers ranked the *biology- improve existing life* as their top need. As **fruit and berry** production usually includes more perennials it is not surprising that they would be more interested in other methods that would improve their crop and minimize pest and disease issues. This was noted in the farmer’s comments as many were interested in research on inoculants and use of compost teas to maximize and add organisms to the soil for perennial crops. Farmers also commented that rotations for disease prevention through the use of cover crops and green manures would be valuable in potato systems. Composting issues were also of concern; many respondents noted that more information on vermicomposting and composting regimes that would add ample amounts of fertility to the soil were needed.



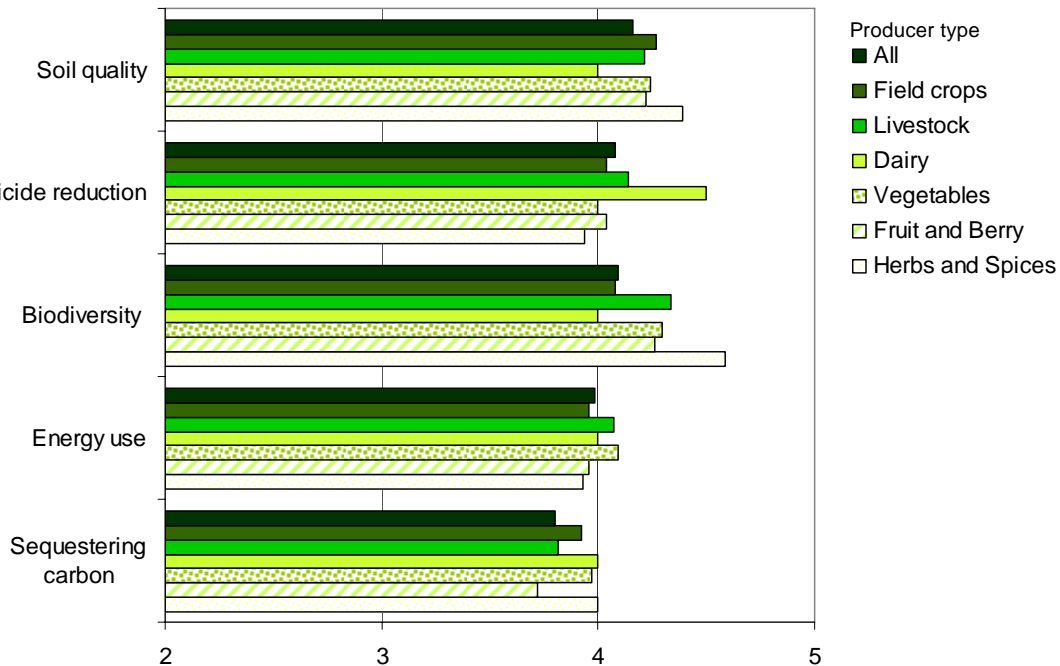
**Figure 9. Research needs ratings for soil issues among producer categories.**

Note: A rating of 5 indicated a very important need, 1 indicates less important need.

## 7. Ecological Systems

Overall, all producer types ranked the ecological systems needs similar; with *soil quality* ranked slightly higher, followed closely by *pesticide reduction* and *biodiversity*. *Carbon sequestering* was ranked the lowest overall by all producer types. The horticultural crops and **livestock** sectors ranked *biodiversity* as a more important need than the **field crop** and **dairy** sectors. **Dairy** producers ranked *pesticide reduction* as their top need, while **field crop** producers reported that *soil quality* was their top need for sustainability issues (Figure 10).

Comments on other sustainability research needed in the Maritimes resulted in a variety of responses. One farmer commented on the need to research energy use on organic farms in respect to its sustainability was of importance. A few farmers responded that more marketing, not only to the consumer but also farmers was needed. They stated connecting local to organic was needed so consumers would understand the benefits of eating seasonal, local produce over imported produce regarding energy use. And that farmers need to be educated about the effects farming practices have on the land, especially the removal of large amounts of organic matter resulting in poorer soil – “rich father, poor son”. Farmers also mentioned the need for nature conservancy - land stewardship education – and the need to help farmers find good stewards that will carry on tradition and practice.



**Figure 10. Research needs for sustainability issues by producer category.**

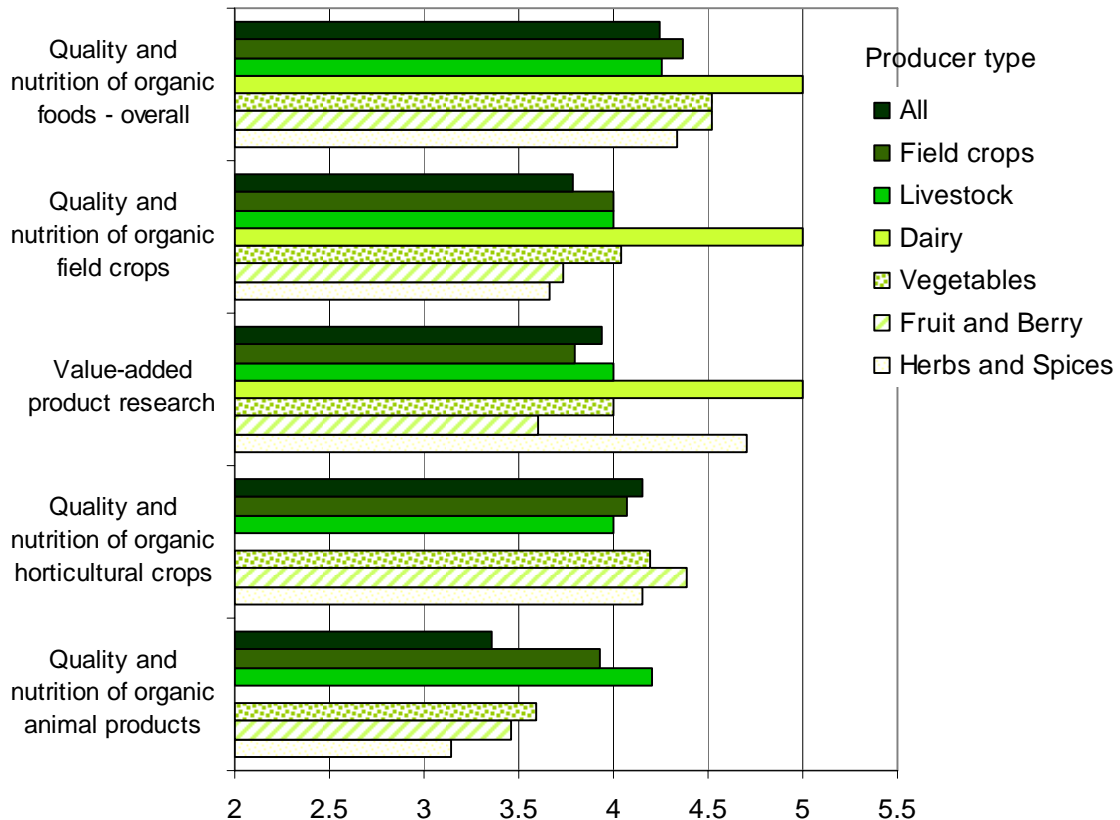
Note: The livestock category includes all livestock except dairy production. A rating of 5 indicates a very important need, 1 indicates a less important need.

## 8. Health and Food Quality

The *overall quality and nutrition of organic foods* was scored highly by all producer types in the Maritimes, followed closely by the *quality and nutrition of organic horticultural crops*. Producer types tended to rank their own sector more highly though the *quality and nutrition of organic animal products* rated the lowest overall (Figure 11).

Assessment of each of the producer types indicated that **herb and spice** producers were overall more interested in *value-added product research*. Whereas, **vegetable** and **fruit and berry** producers were more interested in research on the *quality and nutrition of organic food- overall*, however they rated the *quality and nutrition of organic horticultural crops* lower.

A majority of the farmers commented that they would like to see more research comparing the “health benefits of organic production versus chemical production methods” and to understand if there is a “nutritional” difference of the various crops produced in the Maritimes (i.e. grain, potatoes, garden vegetables, etc.).



**Figure 11. Research needs ratings for health and food quality issues by producer category.**

Note: The livestock category includes all livestock except dairy production. A rating of 5 indicates a very important need, 1 indicates a less important need.

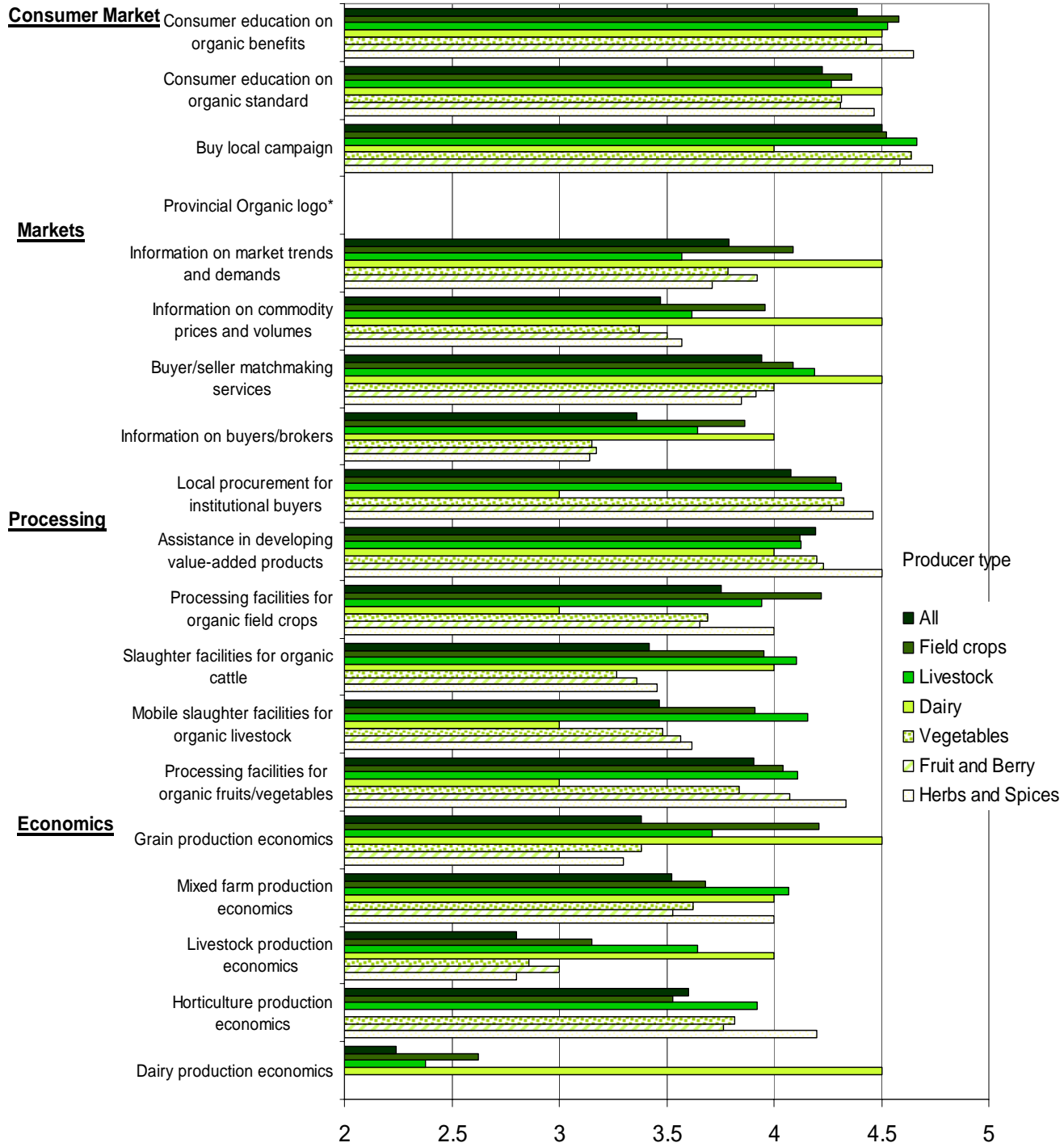
## **9. Marketing, Economics and Processing Needs**

The **Consumer Markets** category was ranked highest overall by each of the producer sectors, with the *Buy Local campaign* ranked slightly higher. However this was closely followed by *consumer education on organic standard* and *consumer education on organic benefits*.

Under the **Markets** category, producers ranked *local procurement for institutional buyers* highest whereas *information on buyers/brokers* was ranked the lowest by all producer sectors. Field crop producers were more interested in information on market trends and demands, while the horticulture producers rated buyers/sellers matchmaking service higher.

Overall, the **Processing** category was ranked moderately by all producer sectors with *assistance in developing value-added products* ranking highest. The **horticultural crops** sectors and **dairy** producers reported that *value-added products* would be of great benefit to their farming sectors, while **field crop** producers ranked *processing facilities for organic field crops* as their top research need. **Livestock** producers ranked *mobile slaughter facilities* as their greatest research need, however, **livestock** producers also ranked *facilities for organic fruits and vegetables* highly.

The **Economics** category was ranked lowest by all the producer sectors. Within this category *horticultural production economics* and *mixed farm production economics* were ranked the highest by all the producer sectors. Within this category, **dairy**, **livestock** and **field crop** producers ranked *mixed farm production economics* as their greatest research need, which is not surprising as many of these farmers indicated that they operated mixed farms. Whereas, the **horticultural crops** sectors ranked *horticultural production economics* as their greatest research need (Figure 12).



**Figure 12. Research needs ratings for marketing issues by producer category.**

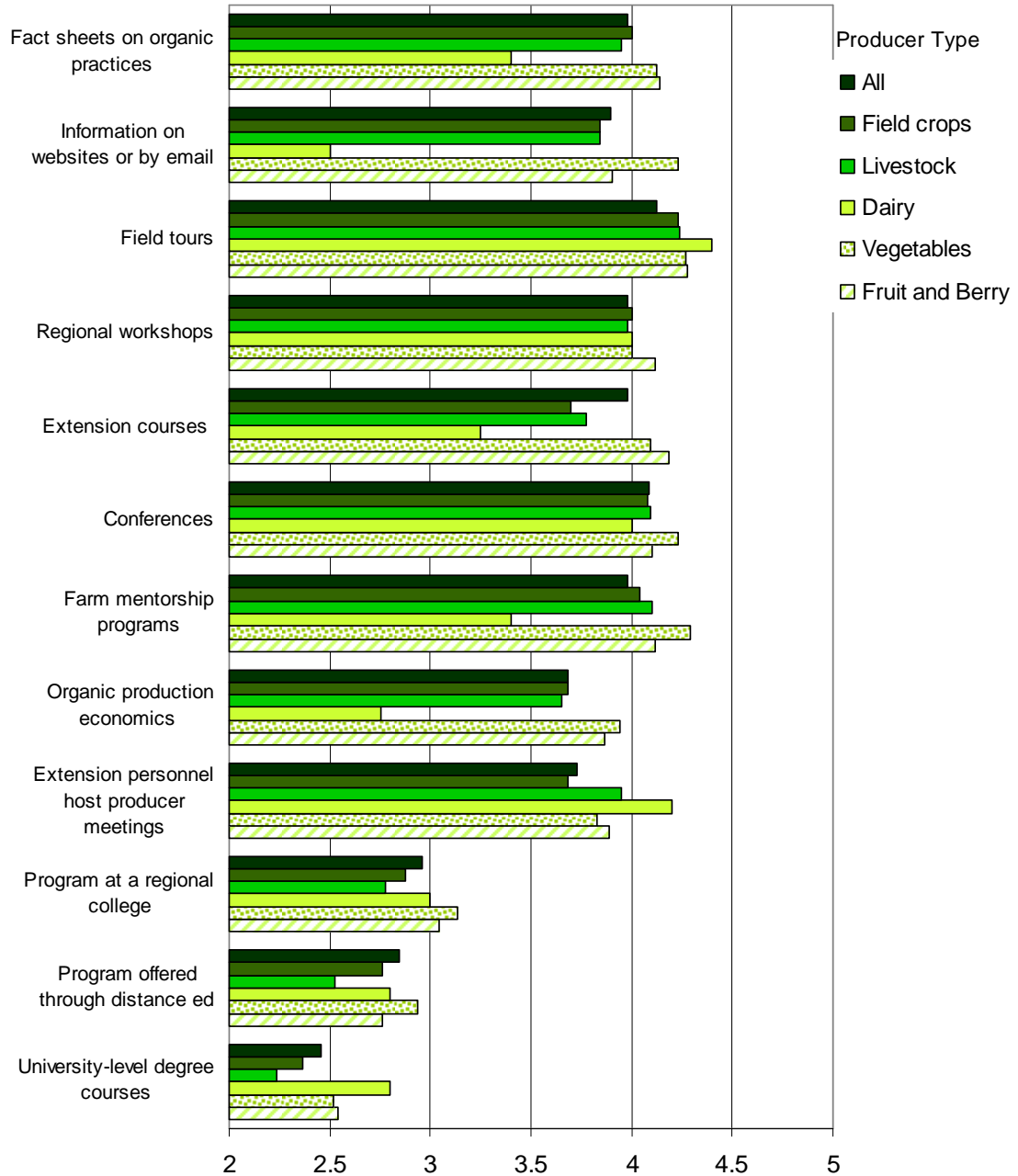
Note: The livestock category includes all livestock except dairy production. A rating of 5 indicates a very important need, 1 indicates a less important need.

\* Indicates a need that was not included in all provincial surveys

## **10. Extension/Technology Transfer**

This section aimed to assess how producers prefer to receive research and extension information. The majority of the producers ranked *field tours*, *conferences* and *fact sheets on organic practices* as their top methods for receiving research extension and technology information. Though *field tours* and *conferences* were ranked 1<sup>st</sup> and 2<sup>nd</sup> overall by farmers, their comments indicated that they would prefer to access information from the internet and email. Farmer comments suggest that information available needs to be directly related to the regional area. Regional workshops were overall ranked 4<sup>th</sup>, as many farmers commented that local workshops and meeting where regional specialist and experienced farmers were present would be of interest. Many also noted that these meetings need to allow for Q&A (Figure 13).

The least preferred method for receiving information reported by Maritime respondents was the use of *distance education programs* and *university-level degree course*. Many reported that the prices for attending these courses was too costly and distance to travel was too great (travel time). A few farmers also stated that courses do not allow for enough interaction; one way information transfer.



**Figure 13. Extension and technology transfer needs ratings.**

Note: The livestock category includes all livestock except dairy production. A rating of 5 indicates a very important need, 1 indicates a less important need.

- Indicates a need that was not included in all provincial surveys.
- Herb and berry were similar to fruit and berry so they were removed off of the graph

### **10.1. What barriers do you see for the growth of organics?**

In the Maritimes, the most significant barriers to the growth of organic agriculture described by the farmers were the “lack of access to markets”. Farmers identified the “lack of a coordinated marketing plan” and stores not “advertising organic foods/products”. Farmers also indicated that “monopolies in retail created by corporations such as Loblaws/Sobeys” are dropping their prices on organic foods to offload these products” and this is making it more difficult for the small, local farmer to sell their products at a reasonable price. Many farmers also indicated that grocery chains are in too much control and they are trying to keep prices inline with conventional farming. “Competition from organic importers” is also helping the grocery chains reduce the price of organics but these reduced prices are affecting local farmers but it is also affecting “consumer confidence” in the term organic.

Farmers in the Maritimes also remarked that resources for organic production are a barrier to the growth of the organic sector. Many mentioned that the lack of laborers, transportation costs, lack of buyers and brokers for certified organic and the need for processing facilities has limited the organic sector. With this need for more infrastructure, many farmers commented that “government red tape” and “costs due to the bureaucracy in the certification processes” are affecting the growth as there is a lack of new farmers getting into organics. Supermarkets also require packaging, labeling and shipping which can be costly to the producer, increasing their expenses and the price for the consumer.

Another major concern communicated by farmers was the need for more consumer education. Farmers indicated that consumer dollar expectations have been influenced by large corporations and their needs to be a greater understanding of the costs behind the price. Consumers need to be further educated on the benefits of buying organic/local products and how this will also benefit the environment (e.g. global warming). Farmers noted that there needs to be education and awareness as to what “organic” means, as many farmers feel that the consumers view organic as nothing more than “pesticide free”. This has occurred as currently the term ‘organic’ has been mixed with other terms including green, natural, etc and there needs to be a common national standard. Currently, a few indicated that the product of Canada label is very misleading as it does not apply to only organic products produced in Canada.



**10.2. What opportunities do you see for the growth of organics?**

Maritime farmers were positive about the future of organics stating that many opportunities have opened up the door for the growth of this sector. Farmers commented that as organics have become more available in major markets (Sobeys/Loblaws) and with the education of the public through Buy local campaigns this sector is seeing an increase in consumer sales. It is consumer demand that is influencing producers and buyers alike, leading to more research into organics and its benefits. Farmers commented that as more research continues it has also influenced more consumer demand as the public has become aware of the environmental benefits which include less fuel use and less pesticide use which overall has a benefit on health.

There has been an expansion of market possibilities as growth of public awareness and confidence occurs. This expansion of the market acts as an "entry point for those who want to operate at a smaller scale or at least start out at a smaller scale". However, farmers indicated that small producer's still needs a helping hand to begin small CSA's and food co-ops. With all of these mentioned opportunities for growth, many farmers appeared to still be cautious, noting that there need to be more direct contact with buyers and assistance with advertising. There is still a lack of infrastructure to support the increased demand and this could possibly limit the ability of farmers to meet the demand in the near future. Though overall many feel the market demand has increased through buy local and consumer education, many proceed with caution as the area of organics still has many hurdles to overcome.

## **11. Summary**

The respondents to this survey identified the key needs areas for further research in the Maritime Provinces, in the areas of field crops, livestock, dairy, fruit and berry, and herb and spices. Research areas identified as high priority included: *livestock parasites*, increased marketing to enhance *consumer education* through *buy local* campaigns and need for further soils research to improve the soil biology.

Majority of the respondents to the survey indicated that they were new entrants to organic farming with less than 10 years of experience, while more than half of respondents were over the age of 40. Only 5% of the respondents were under the age of 30. This suggests that most respondents were entering organic farming as a second career as a transition from conventional farming.

Producers were overall more interested in research performed on-farm with the use of farm scale machinery compared to regional research centers. Collaboration between researchers and producers was also ranked highly by Maritime respondents.

Among animal related issues parasites, feed and grazing were ranked the top three research priorities, while under crop production respondents ranked the need for enhancing natural insect controls, cultural insect controls and use of beneficial rotations for specific problems as important. Within the soils section, biology to improve existing life and soil fertility and crop rotations were ranked highest, whereas salinity of the soil and minimizing erosion were of least importance.

Access to market information and research on organic issues was considered important to Maritime producers. Most participants indicated that their preferred methods for obtaining extension information on organic practices was through field tours, conferences, and factsheets. Within the farmer's comments section a large proportion identified the internet as their main method currently for obtaining information followed closely by email.

**12. Appendix 1. Canada Organic Needs Assessment Survey**



OACC recognizes that the value in agricultural research and other farm services comes from **meeting the needs of farmers**. The purpose of this survey is to help us to more effectively meet your needs. The results of the survey will

- ✓ give you an opportunity for direct input into the priorities for future funding initiatives
- ✓ help researchers plan their research programs with your concerns in mind
- ✓ help extension staff provide extension materials relevant to your needs

**Please answer as many questions as you wish.** This information helps us to understand your needs, but if you feel that you do not wish to share some information, or feel that it doesn't apply to you, please skip that question, and go on to the next question.

**Your responses to this survey are completely anonymous.** Any release of this information will be aggregated to assure anonymity. Please return this questionnaire in the enclosed envelope or fax it to 902-896-7095. If you have any questions, comments or concerns about this process, please contact Margaret Savard, at 902-893-7256 (office) or [oacc@nsac.ca](mailto:oacc@nsac.ca).

**Thank you for your time and thought in completing this survey.**

**SECTION A: Products**

**A1. What organic products do you currently produce? (Check all that apply.)**

In Saskatchewan, Manitoba, Alberta and the Maritimes, the options were:

- |                                     |                                       |                                  |                                  |                                |
|-------------------------------------|---------------------------------------|----------------------------------|----------------------------------|--------------------------------|
| <input type="checkbox"/> Cereals    | <input type="checkbox"/> Oilseeds     | <input type="checkbox"/> Pulses  | <input type="checkbox"/> Forages | <input type="checkbox"/> Fruit |
| <input type="checkbox"/> Vegetables | <input type="checkbox"/> Herbs/Spices | <input type="checkbox"/> Beef    | <input type="checkbox"/> Bison   | <input type="checkbox"/> Dairy |
| <input type="checkbox"/> Swine      | <input type="checkbox"/> Sheep        | <input type="checkbox"/> Poultry | Other: _____                     |                                |

In Ontario, the options were:

- |   |                                       |   |                                |                                  |
|---|---------------------------------------|---|--------------------------------|----------------------------------|
| <input type="checkbox"/> Fall cereals   | <input type="checkbox"/> Hay          | <input type="checkbox"/> Vegetables           | <input type="checkbox"/> Dairy | <input type="checkbox"/> Poultry |
| <input type="checkbox"/> Spring cereals | <input type="checkbox"/> Pasture      | <input type="checkbox"/> Fruit                | <input type="checkbox"/> Beef  | <input type="checkbox"/> Sheep   |
| <input type="checkbox"/> Soybeans       | <input type="checkbox"/> Corn         | <input type="checkbox"/> Berries              | <input type="checkbox"/> Bison | <input type="checkbox"/> Swine   |
| <input type="checkbox"/> Pulses         | <input type="checkbox"/> Herbs/Spices | <input type="checkbox"/> Greenhouse/hoophouse | Other: _____                   |                                  |

In BC, the options were:

- |                                     |                                       |                                  |   |                                |
|-------------------------------------|---------------------------------------|----------------------------------|---|--------------------------------|
| <input type="checkbox"/> Cereals    | <input type="checkbox"/> Oilseeds     | <input type="checkbox"/> Pulses  | <input type="checkbox"/> Forages                  | <input type="checkbox"/> Fruit |
| <input type="checkbox"/> Vegetables | <input type="checkbox"/> Herbs/Spices | <input type="checkbox"/> Beef    | <input type="checkbox"/> Bison                    | <input type="checkbox"/> Nuts  |
| <input type="checkbox"/> Swine      | <input type="checkbox"/> Sheep        | <input type="checkbox"/> Poultry | <input type="checkbox"/> Dairy (cow, goat, sheep) |                                |
| <input type="checkbox"/> Greenhouse | Other: _____                          |                                  | Other: _____                                      |                                |

**A2. What organic products do you intend to produce in the near future? (Check all that apply.) (As above for each region)**

For the pages that follow, we have asked two types of questions.

- ✓ We would like to know how much interest there is in each type of research. For these questions, please circle the number that indicates how important each is to you as an organic producer, on a scale of 1 to 5
- ✓ We would also like to know of any specific sorts of research or other concerns that you have. Please write in any comments you would be willing to share with us.
- ✓ If you have more comments than will fit, please include another page, or contact OACC directly. Our phone, fax and email contacts are listed above.

Thank you! We really appreciate the time and effort that you give us to help us help you.

**NB: on the original survey distributed, the rankings of 1 – 5 were reversed (i.e. 1 was the most important and 5 was the least important)**

**SECTION B: Production Research** (production research is directed to all those areas that help you grow a crop or raise livestock)

	Very Important	4	3	2	1 Less Important
<b>B1. Managing soil fertility and soil quality/health</b> .....	5	4	3	2	1
Soil Biology – management to improve existing soil life (e.g. mycorrhizae).....	5	4	3	2	1
Soil Biology – adding living organisms (e.g. inoculants) .....	5	4	3	2	1
Soil Chemistry – N, P, K, S management .....	5	4	3	2	1
Soil Chemistry – other (specify _____).....	5	4	3	2	1
Soil Chemistry – trace elements .....	5	4	3	2	1
Soil Chemistry – salinity .....	5	4	3	2	1
Manure Management.....	5	4	3	2	1
Minimizing Soil Erosion.....	5	4	3	2	1
Rotations (green manures and crop rotation for soil fertility).....	5	4	3	2	1

What other soil research would you like to see?

<b>B2. Managing weeds</b> .....	5	4	3	2	1
Mechanical (tillage) controls.....	5	4	3	2	1
<b>Mechanical (tillage) controls in perennial crops (BC only)</b> .....	5	4	3	2	1
Biological controls (natural and introduced diseases and predators of weeds)..	5	4	3	2	1
Cultural controls (seeding rates, varieties, cropping management) .....	5	4	3	2	1
Rotations (green manures, crop order) .....	5	4	3	2	1
Organic herbicides .....	5	4	3	2	1
Other (specify _____) .....	5	4	3	2	1
Designing weed control programs to manage specific weeds					
Canada thistle .....	5	4	3	2	1
Wild mustard .....	5	4	3	2	1
<b>Field bindweed (BC only)</b> .....	5	4	3	2	1
Other (specify _____) .....	5	4	3	2	1

What other weeds research would you like to see?

		Very		Less	
		Important		Important	
<b>B3. Managing crop insects pests</b> .....	5	4	3	2	1
Enhancing natural controls (e.g. encouraging grasshopper predators) .....	5	4	3	2	1
Cultural controls (crop rotations, intercrops, crop management) .....	5	4	3	2	1
Biological controls (e.g. releasing insect diseases or predators) .....	5	4	3	2	1
<b>Organically approved insecticides (BC and Ontario only)</b> .....	5	4	3	2	1

What other insect research would you like to see?

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<b>B4. Managing crop diseases</b> .....	5	4	3	2	1
Enhancing natural controls (e.g. encouraging beneficial bacteria).....	5	4	3	2	1
Cultural controls (crop rotations, intercrops, crop management) .....	5	4	3	2	1
<b>Organically approved fungicides (BC and Ontario only)</b> .....	5	4	3	2	1

What other disease research would you like to see?

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<b>B5. Crop rotations</b> .....	5	4	3	2	1
Understanding soil, weed, insect, disease interactions in rotations .....	5	4	3	2	1
Identifying beneficial crop rotations for specific problems .....	5	4	3	2	1
Long term cropping systems research.....	5	4	3	2	1

What other crop rotation research would you like to see? \_\_\_\_\_

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<b>B6. Breeding/testing varieties for suitability in organic systems</b> .....	5	4	3	2	1
--	---	---	---	---	---

Which crops would you target for this research?

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What specific variety or breeding research would you like to see?

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<b>B7. Specialized equipment for organic production systems</b> .....	5	4	3	2	1
What types of equipment would you like to see researched (e.g. weed clippers, chaff collectors,					

crimper/rollers, hoophouse, season extension techniques etc.)?

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Do you raise livestock? If not, please go on to C. ....

Very Important	Less Important
Yes	No

**B8. Animal health and nutrition** ..... 5 4 3 2 1  
 (For the questions below, please specify the animals (beef, dairy, sheep, etc.) in which you are interested)

- Breeds (specify animal: \_\_\_\_\_) ..... 5 4 3 2 1
- Parasites (specify animal : \_\_\_\_\_) ..... 5 4 3 2 1
- Diseases (specify animal : \_\_\_\_\_) ..... 5 4 3 2 1
- Grazing (specify animal: \_\_\_\_\_) ..... 5 4 3 2 1
- Feed (specify animal: \_\_\_\_\_) ..... 5 4 3 2 1
- Handling (specify animal : \_\_\_\_\_) ..... 5 4 3 2 1
- Housing (specify animal : \_\_\_\_\_) ..... 5 4 3 2 1
- Manure Management (specify animal : \_\_\_\_\_) ..... 5 4 3 2 1
- What other livestock research would you like to see? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION C: Other Research**

**C1. Production economics** (quantifying cost of production, comparing costs of options; identifying new enterprises and ventures) ..... 5 4 3 2 1

- Grain production ..... 5 4 3 2 1
- Mixed farm ..... 5 4 3 2 1
- Horticulture production ..... 5 4 3 2 1
- Livestock production ..... 5 4 3 2 1
- Dairy production ..... 5 4 3 2 1

Which crops or animals would you like to see researched (e.g. hemp, camelina, carrots, ostrich **examples not used in ON and BC surveys**)?

Value added research ..... 5 4 3 2 1

Which value added projects would you like to see researched (e.g. cleaning plant, custom operations, birdseed, wild oat oatmeal – **examples not used in ON and BC surveys**)?

\_\_\_\_\_

\_\_\_\_\_

		Very Important	4	3	2	1	Less Important
<b>C2. Quality and nutrition of organic foods</b> .....	5						
Field crops .....	5						

Please specify which crops: \_\_\_\_\_

Animal products .....	5		4	3	2	1
-----------------------	---	--	---	---	---	---

Please specify which animal products: \_\_\_\_\_

Horticultural crops .....	5		4	3	2	1
---------------------------	---	--	---	---	---	---

Please specify which crops: \_\_\_\_\_

What other organic food quality research would you like to see?

\_\_\_\_\_

\_\_\_\_\_

<b>C3. The contribution of organic to sustainability</b> .....	5		4	3	2	1
Biodiversity (diversity of wildlife and soil organisms) .....	5		4	3	2	1
Sequestering carbon .....	5		4	3	2	1
Energy use .....	5		4	3	2	1
Soil quality .....	5		4	3	2	1
Pesticide reduction .....	5		4	3	2	1

What other sustainability research would you like to see?

\_\_\_\_\_

\_\_\_\_\_

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**SECTION D: Research Management** (Where should research be conducted? How should organic producers be involved in organic research?)

<b>D1. Research conducted on the farms of organic producers</b> .....	5		4	3	2	1
<b>D2. Research conducted at regional research and/or demonstration farms</b> .....	5		4	3	2	1
<b>D3. Research conducted using farm scale equipment</b> .....	5		4	3	2	1
<b>D4. What level of organic producer involvement is important to you?</b>						
Producer advisory committees for research projects .....	5		4	3	2	1
Producer / researcher collaboration .....	5		4	3	2	1
Producer initiated research .....	5		4	3	2	1
Producer board determines direction of research dollars .....	5		4	3	2	1

Additional comments? \_\_\_\_\_

\_\_\_\_\_

**SECTION E: Post Production Needs** (includes processing and marketing information)

		Very		Less	
		Important		Important	
E1. Information on commodity prices and volumes .....	5	4	3	2	1
E2. Information on buyers/brokers .....	5	4	3	2	1
E3. Information on market trends and demands .....	5	4	3	2	1
E4. Assistance in developing value added products .....	5	4	3	2	1
E5. Processing facilities for organic field crops .....	5	4	3	2	1
E6. Processing facilities for organic fruits and vegetables .....	5	4	3	2	1
E7. Slaughter facilities for organic cattle .....	5	4	3	2	1
E8. Mobile slaughter facilities for other organic livestock .....	5	4	3	2	1
E9. Buy local campaign .....	5	4	3	2	1
E10. Provincial Organic logo (not asked in ON, BC or Maritimes) .....	5	4			
	3	2	1		
E11. Local procurement for institutional buyers .....	5	4	3	2	1
E12. Buyer/seller matchmaking services .....	5	4	3	2	1
E13. Consumer education on organic standard .....	5	4	3	2	1
E14. Consumer education on organic benefits .....	5	4	3	2	1

What other initiatives would you like to see?

**SECTION F: Extension/Technology Transfer (How does research information reach farmers?)**

F1. How important are organic extension and education services? .....	5	4	3	2	1
Extension courses on advanced specific aspects of organic production.....	5	4	3	2	1
Fact sheets on organic farming practices.....	5	4	3	2	1
Information on economics of organic production.....	5	4	3	2	1
Organic information available on websites or by email .....	5	4	3	2	1
Extension personnel to facilitate specialty producer meetings .....	5	4	3	2	1
Organic Farm Mentorship programs (experienced organic farmers).....	5	4	3	2	1
Field tours of organic production.....	5	4	3	2	1
Conferences (regionally appropriate examples listed) .....	5	4	3	2	1
Regional workshops.....	5	4	3	2	1
Organic Agriculture program offered through distance education .....	5	4	3	2	1
Organic Agriculture program at a regional college .....	5	4	3	2	1
University-level Degree courses in Organic Agriculture .....	5	4	3	2	1

How do you prefer to access information? \_\_\_\_\_

What specific information would you like to see (soil test fact sheet, nutrient planning, buyers' preferences, etc.)? \_\_\_\_\_



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**SECTION G: Barriers and Opportunities for Growth**

What barriers do you see for the growth of organics?

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What opportunities do you see for the growth of organics?

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**SECTION H: Demographics** (we ask these questions in order to categorize your results (for instance, are weeds more important to new entrants in organics?))

Cultivated      Pasture/grazing      Other

**H1. How many acres do you operate?**

\_\_\_\_\_ acres

**H2. How many of these are certified organic?**

\_\_\_\_\_ acres

**H3. Where does your gross farm revenue generally fall?**

\_\_\_\_ <\$10,000      \_\_\_\_  
\$10,000-\$24,999    \_\_\_\_ \$25,000-\$49,999    \_\_\_\_ \$50,000-\$99,999    \_\_\_\_ \$100,000-  
\$249,999      \_\_\_\_ >\$250,000

**H4. Where do you market your products?** (Asked in AB, ON and BC)

\_\_\_\_ Direct to consumer    \_\_\_\_ Farmer's Market    \_\_\_\_ Wholesale    \_\_\_\_ Processor  
\_\_\_\_ Retailer

**H5. How many years have you been an organic producer?**

\_\_\_\_ < 5 years    \_\_\_\_ 5 – 10 years    \_\_\_\_ 11 – 15 years    \_\_\_\_ 16 – 20 years  
\_\_\_\_ 21+ years

**H6. What is your age?** \_\_\_\_ < 30    \_\_\_\_ 30 - 39    \_\_\_\_ 40 - 49    \_\_\_\_ 50 - 59    \_\_\_\_ 60 -

69    \_\_\_\_ 70+

**H7. What is your gender?** \_\_\_\_ male    \_\_\_\_ female

**H8. What is your soil type?** \_\_\_\_ brown    \_\_\_\_ dark brown    \_\_\_\_ black    \_\_\_\_ grey (Asked in AB, SK, and MB)

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Additional Comments: (Is there anything that you'd like to add, that we missed? Add another page if you'd like!)

Thank you, again, for your comments.

### **13. Appendix 2. Maritime Farmer Survey Comments.**

Comments below correspond to above questions in the Assessment Survey. The “n” value reported in brackets for various comments indicates the number of respondents with the same response.

#### **B1. Soil Chemistry - other (specify\_\_\_\_\_)**

- Nutrient availability
- Ca
- Mg
- K
- S
- Locally sourced amendments

#### **B1. What other soil research would you like to see?**

- Rotations for disease prevention in potatoes and the role of manure plus green manure crops
- We use permanent forage some for as long as years
- Organic management
- We need a way to inoculate (microbe) soil and/or create microbe cycling/compost tea applications that will aid with extracting N out of soil air
- Biodynamics
- Possibly some work on rock powders - if we can identify local sources - especially quartz
- How to maximize added organisms in compost tea to a perennial crop - combine with organic matter spread on field? Wood chips? Sawdust? Minimum spread which might aid fungi applied in tea?
- Vermicomposting and composting on a smaller scale (between garden and industrial)
- Soil management for orchards, comparison of various ground covers in organic orchards
- Retaining fertility and OM on sandy soils
- Using conventional manure - I understand that I might not be able to use it. Composting regimes
- The working of all these together
- Simply getting good (ample) fertility using organic amendments
- The effect of adding humus, especially peat, for soil development. Best practices
- Quantitative soil comparisons of virgin soils to depleted worked-out soils (in respect to minerals/living organisms)
- Best ways to manage sod and establish a new cereal crop and fertility to produce ton ac yield or better

#### **B2. Other (specify\_\_\_\_\_)**

- Use weeds as soil builders
- Soil amendments ex. Sulfur
- The relationship between soil health, nutrients, and weeds
- Mulching
- Heat/flame

- Management of highways, train tracks and wayside introduction of weeds

**B2. Other (specify \_\_\_\_\_)**

- Amaranth
- Birch
- Blackberry
- Chickweed (n=2)
- Couchgrass (n=6)
- Hemp nettle
- Knotweed
- Lambs quarters (n=3)
- Pigweed
- Quackgrass (n=2)
- Rhodora,
- White raspberry

**B2. What other weeds research would you like to see?**

- Degree days of heat units as an indicator for control management (tillage), spraying (acetic acid), etc. Re: age of weed
- Smartweeds (green, lady's thumb). I'm losing areas to grazing (cattle and sheep refuse to eat near areas containing these weeds). See other comments
- Vetch
- The beneficial impact many different wild plants have
- Broadcasting weed peppers will raise paramagnetic and carbon levels and reduce weed pressure
- Weed control in organic high bush blueberries, possibly depending on type of mulch - follow the use of sulphur more thoroughly.
- Reducing weed (especially grass) pressure in organic lowbush blueberries (permanent no-till field)
- Use of mulches, plastic, biodegradable plastics organic and living
- Effect of light on weed seeds
- Removable plastic mulch for establishing grape vines (i have had success with sawdust but application logistics could hinder others)
- I am not likely to use organic herbicides, but this may change with better knowledge
- The bringing in of weed seeds before by the trains was monitored but this is no longer done and of course the nations highways wheelers bring in weeds it may be possible to involve Agriculture Canada with this as Jerry Ivany is still part-time on staff

**B3. What other insect research would you like to see?**

- Apple maggot
- Army worms, pest control for greenhouses
- I use ladybugs to control aphids in Xmas trees
- Keeping up with our "new" and "to-be" visitors

- Wireworm control in potatoes - will certain vitamins and minerals help keep them away?
- A control for cucumber beetle and flea beetle
- Blueberry maggot
- Fruit fly in blueberries
- Transplants vs. Direct seeding in terms of ability to survive an insect attack. Soil health and resilience of plants against insect pests.
- Corn earworm, cucumber beetle
- Nematode research - discouraging club root - have had some success with marigold - need vibrant marigold that will sprout as a seeded companion in field
- Cucumber beetle on squash
- Biological control of European apple sawfly
- Insect pests in stored crops
- Apple, plum curculio
- We are particularly interested in controlling insects that attack green leafy vegetables
- Use of spiders, song bird natural insect control, dragonfly, toad, salamander trap crops not a major issue with dairy, corn borer can be a bit of a problem

**B4. What other disease research would you like to see?**

- Impact of NPK and other nutrients/minerals on diseases e.g. Potato scab. Altering climatic conditions on farm/by field e.g. For blight control. What field to match with which crop? I.e. Slope, air movement, row spacing, temp, moisture, etc.
- Powdery mildew
- Blight control in potato
- What causes plants to be resistant to diseases - an apple tree in the woods doesn't have nearly as many diseases and insects as those in an orchard. Why?
- Fungal disease in barley
- I think there should be a comprehensive project on fungicides - with our humidity this is applicable to many crops. I realize this touches extension as much as research
- Blight (blueberry)
- Resistant varieties for potato late blight
- Use of compost tea in prevention of leaf spot and leaf drop in sprout year (lowbush blueberry)
- Use of EM and compost tea. Soil health and the resilience of plants against disease. Plant spacing for fall crops (powdery mildew, blight). Avoiding rot in summer salad greens. Soil diseases of the brassicas and rejuvenating infected soils.
- Good for greenhouse how to keep ladybugs alive. In years have had very little plant disease (mildew late in season)
- Testing of new biological controls for apple scab
- Downy mildew and powdery mildew. Prediction models
- Healthy soil versus depleted artificial soil for presence of and degree of crop diseases, not a major issue with dairy,

**B6. Which crops would you target for this research?**

- Apple maggot
- Apples (n=4)
- Beets,
- Blueberries
- Broad beans
- Carrots,
- Cereals (n=2)
- Corn (n=4)
- Cranberries,
- Edible beans,
- Flax,
- Garlic,
- Grains (n=2)
- Grapes/wine
- Greens
- Heritage potato varieties
- Highbush blueberries
- Hulless barley,
- Oats,
- Oilseeds
- Older barley varieties,
- Potatoes (n=7)
- Raspberry (n=3)
- Small fruit
- Soybean edible herbs field level trials
- Soybeans
- Strawberries (n=3)
- Sweet corn
- Tomatoes (n=2)
- Turnips
- Wheat
- Winter barley

**B6. What specific variety or breeding research would you like to see?**

- Potato taste, alkaloids, cooking qualities
- Fungal and insect resistant varieties of apples
- Find more perennial crops instead of depending on annuals
- Russet potato research - yield/fertilizer
- I don't think organic cropping systems (rotations, management) for organic systems have been well thought out yet.
- Producing a shorter season variety
- Tomatoes, disease resistance.
- Potatoes - low nutrient needs.
- Carrots - root worm resistance (some cv. More susceptible- sweetness, cosmic purple).
- Broad beans and aphids, resulting disease problems.
- Quality organic potato seed vs. Non-organic seed

- Resistance to disease and insects
- Testing of new varieties of apple for organic production
- Downy mildew and powdery mildew resistance
- Heat units, disease resistance and a variety that does not require as much n
- Work on fall planted grains
- Disease and insect resistance
- In Newfoundland we need early varieties
- Perhaps chickens and swine more adapted to pasture based systems
- Resistant varieties to insect attack, rot, competition with weeds and improved yields due to the expected increase in the use of coal in the USA and the probable increase of rainfall of an acid nature, lime etc. If you have a good fertile soil and manage things well most of the varieties will give you an average yield or better

**B7. What types of equipment to be researched (e.g.. weed clippers, chaff collectors, crimper/rollers, etc)?**

- Accurate mechanical weeders
- Anything small enough for ac and a low hp tractor
- Chaff collectors,
- Compost tea spraying, making or extracting n via microbes, compost tea collecting co to grow algae in closed loop reactors for fertilizer and oil
- Equipment for incorporating cover crops and green manures
- Equipment for small scale organic market gardens - mixed veg. Weeds.
- Equipment to reduce weeds under tree canopies
- Fingerweeders (n=2)
- Harvest rotovators
- Mechanical weeders
- Much research has been done - cost of equipment for size of farms and/or lack of close neighbors to share equipment is more of the problem
- Non mechanized methods of apple flower thinning and apple thinning
- No-till
- No-till/ low till equipment specific to maritime climate and soils
- On-farm weather stations - computerized and non computerized monitoring
- Planters, seed drill
- Propane flamers
- Research into a better way (an implement) to convert sod to a seedbed
- Rock crushers (n=2)
- Small scale equipment
- Small, affordable tough mulching chipping machines to grind up all possible organic materials
- Tillers,
- Tilling plowing methods
- Timing weed control
- Weed clipper to be used in sprout year on wild blueberry
- Weed control
- Weeding equipment

- Weeding implements either hand tools or attachments such as for cubtractors

**B8. Animal health and nutrition (For the questions below, please specify the animals (beef, dairy, sheep, etc.) in which you are interested)**

**B8. Breeds (specify animal:\_\_\_\_\_)**

- Beef
- Cotswold
- Dairy cows (n=2)
- Holstein
- Jersey
- Poultry
- Sheep
- Shorthorn
- Swine

**B8. Parasites (specify animal\_\_\_\_\_)**

- Beef
- Dairy (n=3)
- Sheep
- Chickens

**B8. Diseases (specify\_\_\_\_\_)**

- Dairy (n=3)
- Sheep
- Chickens

**B8. Grazing (specify\_\_\_\_\_)**

- Dairy (n=3)
- Sheep
- Cows

**B8. Feed (specify\_\_\_\_\_)**

- Dairy (n=3)
- Sheep

**B8. Handling (specify\_\_\_\_\_)**

- Dairy (n=3)
- Swine
- Sheep,
- Chickens

**B8. Housing (specify\_\_\_\_\_)**

- Dairy (n=3)
- Swine
- Sheep,
- Chickens

**B8. Manure Management (specify \_\_\_\_\_)**

- Beef
- Dairy (n=3)
- Sheep
- Chickens
- Cows

**B8. What other research would you like to see?**

- Food safety = levels of *salmonella* and *e. coli* in pastured/organic poultry, meat, eggs vs. conventional
- Best way to compost and hold on to N (clay)
- I am just getting into it, hopefully with custom grazing of beef. There is a huge problem nationally with poor nutrition of dairy cows.
- Sheep and internal parasites, cattle - lice, warbles
- How much composting goes on in a bedding pack, do I then need less compost turning?
- Bovine heritage breeds
- I would like to see if cold pressed oilseed meals will be good for pigs/chickens for protein
- Organic sheep and swine production - see research results Parasites: internal and external, flies, feet problems, mastitis, feed: maximizing on-farm organic feed. Organic or not need to conserve nutrients and add when crop can best use it.

**C1. Which crops or animals would you like to see researched? (e.g.. hemp, camelina, carrots, ostrich)?**

- Asian vegetables
- Blueberries
- Barley
- Cereal forage rotation for dairy with minimal grain inputs
- Corn (n=2)
- Flax
- Cost of production for fruits
- Cranberries
- Cucumbers
- Dairy sheep
- Field peas
- Garlic
- Heritage tomatoes
- Hulless oat (n=2)
- It would be nice to see research on apple production economics for organics and also value added research
- Maybe just a need to show profitable systems work.
- Melons
- Milling wheat
- Oilseeds (borage)
- Pastured poultry
- Potatoes



- Salad greens
- Small scale mixed farming at local market level hemp
- Small scale potatoes
- So-called commercial versus heritage
- Specialty grains, markets in pasture-happy poultry (ducks, geese)
- Squash
- Sunflowers
- Vegetables
- Wheat (spring/winter)
- Wild lowbush blueberry
- Wine grapes
- Would like to see research done on low-impact pasture management and research to extend the grazing time for sheep.

**C1. Which value added projects would you like to see researched (e.g. cleaning plant, custom operations, birdseed, wild oat oatmeal)?**

- Too much gov't red tape to attempt, and lack of infrastructure
- Garlic products like dried garlic, garlic powder, garlic paste
- Taking various grains and rolling/grinding for cereals, granola bars, grain based snacks
- On-farm slaughter
- The logic of a mixed farm in 21st century economy
- Oilseeds, biomass, canary grass, hemp fiber, camellia
- Blueberries
- Canning, drying, prewashed and chopped salads, baby food, frozen vegetables
- Market garden vegetables
- Medicinal herbs
- New apple products
- Wine. Perhaps a more valued use for grape pomace rather than composting - nutraceuticals
- Gluten free products
- Time should be available to research projects as they become necessary
- Organic and conventional may be close to the same process
- Improving efficiency in producing salad mixes
- Portable processing for market garden/animals
- Sweetened - dried or dried fruit, organic fleece production limestone, gypsum, peat, ground coal drying herbs commercially.

**C2. Please specify which crops**

- Antioxidant potatoes, new releases, AAFC Benton
- Berries
- Buckwheat
- Compare the most heavily sprayed with ORGANIC
- Corn (n=2)
- Edible beans
- Feed grains
- Field peas

- Forages (n=2)
- Forages for horses
- Grain (n=3)
- Hullless oats (n=4)
- Peas
- Soybean (n=3)
- Vegetables
- Wheat
- Yellow soy beans

**C2. Please specify which animal products**

- Pastured chicken
- Should educate people to be vegetarian
- Sheep/lamb meat
- Dairy goat
- Beef, pheasant
- Quality of saturated fats in beef
- Free range eggs
- Cattle, sheep
- Dairy
- Heritage breeds (Berkshire, etc.)

**C2. Please specify which horticultural crops**

- All types
- Apples (n=2)
- Apples and pears which are currently imported into this area
- Beans (dried too)
- Berries (n=2)
- Berry crops
- Blueberries (n=3)
- Cabbage
- Carrots (n=3)
- Carrots and turnips/ test and compare for toxic residue
- Cranberries
- Educate the marketplace
- Fruits
- Garlic and all market garden vegetables
- Heritage tomatoes, potatoes, carrots, greens
- Kale
- Onions
- Other Cole crops
- Pears
- Peppers
- Potatoes (n=2)
- Squash
- Tomato
- Turnip
- Vegetables (n=3)
- Vegetables: tomatoes, garlic, Jerusalem artichokes

- Wild blueberry

**C2. What other organic food quality research would you like to see?**

- Proteins, minerals, vitamins in field crops
- Maintaining/achieving high brix in grains and potatoes and garden vegetables
- Pet foods
- Health benefits of organic production vs. Chemical production methods
- A comparison of locally grown but ripened in storage tomatoes vs. imported tomatoes. Is it possible to demonstrate that locally grown stored crops are more nutritious than foreign imports over the winter months?
- Omega 3 in grass fed animals
- Is vitamin c in still high in ????? Compared to other organic crops
- Let's compare nutritional value of conventional and organic crops (apples) here in the Maritimes
- Conventional vs. Organic: nutritional values. Pesticide/harmful substance presence
- Health benefits of organic wine and cider
- I think it will be hard to compare
- Health and medical benefits of organic food tomatoes

**C3. What other sustainability research would you like to see?**

- Deer controls, crows, coyotes. They eat the cover crops, fruits, vegetables, potatoes. Overpopulation. They also destroy research projects.
- How can we best measure sustainability and use it as a marketing tool.
- Energy use on organic farms in respect to sustainability in the face of declining fossil fuel supplies.
- Applicable to wild blueberry
- Connecting local to organic; the benefits of eating seasonal, local produce over imported produce regarding energy use. Organics and water quality (PEI potatoes).
- Keeping farms. Nature conservancy - land stewardship education - helping farmers find good stewards that will carry on tradition and practice.
- Local direct marketing
- Soil fertility
- To what extent does soil have the ability to regenerate fertility, and what can a farmer do to assist that process
- Research framed in a regional context, foreseeing a future of fewer food miles
- Water quality of groundwater and watershed protection in agriculture how to increase the population of worms to improve all of our soils; if large amounts of organic matter are removed from our region, our soils will certainly become poorer - rich father, poor son this info would be useful to show the value of organic agriculture to agriculture in general and the environment solar water pump

#### **D4. Additional comments?**

- Researchers and farmers need to better understand the pitfalls and successes of field research vs. in the lab or computer generated. If not managed properly can create divisions.
- Need to be careful you don't just research projects of interest by advisory/producer boards.
- The most important initiatives come from the bottom up. Farmers know what their needs are
- Some type of focus on what consumer is looking for
- Most of us don't have time to initiate research
- Farm scale equipment difficult because of variety of farm sizes. Cost of equipment needs to be addressed in research (find equipment that works and doesn't cost too much for farm size)
- Regional research centers in my experience are managed rather differently than operating farms - so are not as accurate a measure
- Most organic farms have small scale fields to increase diversity
- Who decides how??
- You must be careful that one crop doesn't dominate research to the detriment of minor crops
- Organic producers have little time to waste or simply put they are out of business, believe it. Training and dissemination of results with twilight meetings

#### **Other initiatives?**

- Consumer education on buy local benefits
- Educate the consumer on wireworm holes in potato. Holes are better than organophosphate
- We need research designed to reduce the cost of organic products after the farmer has received his share.
- Promotion of slow food in NB. CSA program promotion similar to that in QC. Getting shoppers out of the supermarket, eat more vegetables.
- Consumer education to be done tactfully not to be portrayed as organic fanatics or us against them
- E9-12 is something the OACC could work on. ACORN was planning to be involved in these initiatives
- In our area we need assistance in setting up a permanent farmers market
- Standard education especially with the new standards starting this fall. Research into alternatives for sulfites (perhaps in partnership with oenology program in Truro)
- Consumer education most important
- I think that processing facilities are not research, but need to be here.
- Education - consumers do not accurately know exactly what organic farming is. This also applies for various industry people as well
- Organic marketing co-ops federally inspected slaughter facilities Because of the small farms, the small communities, better farmers' market installations in all Atlantic Provinces. This will help keep some money in the region and add some useful tourist attractions, not critical for dairy guys as the milk is already sold

**F14. How do you prefer to access information?**

- Agriculture newspapers,
- Anyway that is user friendly
- By mail have an extensive library, too much information email,
- By mail or in person. Do not have access to high-speed internet in my rural area.
- Conferences
- Direct from researchers or other farmers
- Email (n=5)
- Enough written info already.
- Farm visits
- Fellow producers
- I use email but prefer workshops or factsheets
- Internet (n=14)
- It's important to have more info available but not at the cost of unlimited gov't spending
- Mail (n=2)
- Mostly can't find information I'm looking for after practicing and studying organic for 38 years
- Must be publicized well in advance. But they must be regional. Who wants to travel 2-300 km in the winter?
- Newsletters
- Not computer
- On the internet. Less wasted paper. Perhaps this survey could have been online. Also at meeting where the information flows in both directions.
- Own research
- Periodicals,
- Prefer local meetings where a Q&A can happen
- Prices of courses are very important in these specific decisions, location and availability
- Provincial organic specialist,
- Regional workshops - #1 priority.
- Technical bulletin
- The new organic grape growing industry needs information sessions to teach and encourage. L'acadie vineyards would be willing to supply our winery for seminars
- They are all important and the degree program is the least useful.
- Through agronomists
- Twilight meetings
- With fellow producer
- Workshops (n=4)

**F15. What specific information would you like to see (soil test fact sheet, nutrient planning, buyers' preferences, etc.)?**

- Anything specific to vegetable production
- Buyer preference (n=2)
- Clear information on allowable inputs e.g. What is allowed in various processing applications? Sources of allowable nutrients

- Crop rotations and green manure for small farms
- Crop varieties (forage, fruit, vegetables) adapted to Maritimes.
- General information on the trends in organic production.
- I have about 50 textbooks on organic and conventional farming building soil
- I would like to see programs for young farmers set up.
- Latest research reports software programs for organic farms
- Market info,
- Nutrient intake factsheets specific to certain crops.
- Nutrient planning (n=2)
- Organic fertilizer recommendations, weed controls, disease and insect control
- Parasite control in lambs and sheep.
- Pasture improvement and extension of grazing season.
- Pest and disease control (would need to be updated frequently)
- Soil health and weed management in perennial crops,
- Soil test fact sheet (n=5)
- Improve production/tree in maple
- Health reports - biodiversity in the soil
- Soil test help
- Trends (looking towards Europe), sharing of stories and experiences, yields, pricing in supermarkets (what customers pay vs. Farmers receive)

**G1. What barriers do you see for the growth of organics?**

- Access to markets. The age-old problem of getting enough margin on agricultural products to make production viable. Most organic products are coming from large and established organic operations, making it hard for local producers to break in.
- Big producers dropping prices to get rid of product
- CFIA!!! Organics grew because consumers lost faith in big business and big government. To ensure that their food is/was nutritious and safe. Now that these two entities have taken over control of organics, where now?
- Cheap imports of nonorganic foods from a global perspective. Monopolies in retail with Loblaws/Sobeys having control. Lack of workers
- Competition from organic imports that lead to a reduction in consumer confidence
- Condoning of pollution and land degradation from conventional farming.
- Consumer dollar expectations. Consumer education on organic/local and global warming. Why more can be less education (cheaper tax and health and environmental impact).
- Costs
- Economics for the producer
- Educate the people on the benefits of organic farms and local product
- Education of consumer as to what certified organic means and how they need to be partners
- Education of the public that organic doesn't mean the product will always look better than conventional

- Few places to sell organic products. Few places to get products processed
- For wines, possible exclusion of sulfites in new standards. More plantings - we need more organic grapes to grow the wine industry
- Getting on shelves of local stores
- Government red tape and costs, health dept regs, cost of infrastructure, development, land availability, deer population, fewer farms - organic and conventional
- Human resources - labour for small farms
- Issues of scale. Local organic perhaps becoming distanced from large scale organics
- It is becoming viewed as nothing more than pesticide free
- Lack of access to market
- Lack of advertising in mainstream media, lack of knowledge on part of average consumer, lack of storefront marketing opportunities for locally grown food
- Lack of buyer/broker certified organic
- Lack of coordinated marketing plan. Territoriality i.e. Fear/anxiety conventional producers
- Lack of food inspection for meat, interprovincial and USA trade opportunities
- Lack of government interest or support in Newfoundland
- Lack of understanding from other farmers, lack of organic processing plants in Atlantic Canada
- Large companies or corporations/regulations imposed by government on certification bodies that don't make sense
- Length of time for transition, good disease and insect resistant cultivars
- Marketing should be allowed in big store chains
- Misinformation. The term "organic" now gets used for all kinds of things that are not certified organic. Lack of availability of co products in small localities. Too high prices.
- Niche market for wealthy consumers - food for the masses will need to be subsidized so growers can still make a living and all people can eat it.
- Organics will grow the problem is with supermarkets stealing the organic market from local farmers. Produce managers only care about price and appearance
- Price undercutting by producers. Don't want organic to go like conventional pricing
- Processing infrastructure, new organic products to deal with insect/disease pressure
- Public awareness
- Public education, involvement of the big players like Wal-mart, inefficiency and slowness of the federal gov't i.e.CFIA
- Public ignorance of major benefits
- Requirements of large supermarkets as to packaging, labeling and shipping to distribution centers far away (the opposite of slow food) Wal-mart, Sobeys, Loblaws all trying to keep price inline with conventional too much control by grocery chains - shelf space - just as aspirin, cola, and Kleenex, organic will soon lose its identity in a sea of similarities risk

management to expand production to the levels of market demand product sales compared to production cost access to markets, middlemen making too much and pushing the price of organic too high. Conventional milk retail markup 5-10% organic 40% over regulation

- The difficulty economically of conventional farmers already in debt, taking the risk of switching and the certainty that yield will be low for a number of years
- The maritime markets are small and scattered. It is costly to get crops to where they will be (or could be sold). Most of us wish to sell locally.
- The same barriers facing all farmers, plus deteriorating infrastructure and an uneven playing field re: imports of food from other countries, and poor labeling practices. For example, if a consumer wants to buy food produced in Canada, how do they identify it. The product of Canada label is very misleading
- Too much bureaucracy in certification process = unjust treatment in comparison to conventional farmers
- Transportation costs will enhance growth
- Watering down of organic standards by government. Big business co-opting organic movement

## **G2. What opportunities do you see for the growth of organics?**

- Access to major markets (Sobeys, Loblaws)
- buy local
- Buy local campaign and educate public
- consumer demand pushing influential producers/buyers to fund organic research specific to crop
- consumer demand, less input costs, less fuel use.
- Consumer enlightenment and fear. Rising oil process. Specialty markets.
- Demand is growing as consumers become more educated
- Excellent opportunities but producers need more direct contact with buyers and assistance with advertising.
- Expansion of market possibilities. Increase in range of products. Growth in public awareness and confidence
- Getting the small producers a helping hand to create and start a trend cycle, such as CSA programs, food co-Ops etc.
- Going back to old fashioned way where purchaser and buyer are friends and neighbors
- Great opportunities if the value of local organic is emphasized
- Huge market in NE USA just 8 hours away and no way to access
- Increase in infrastructure to make farm crops & livestock easier for consumers. This infrastructure needs to be where production is (several around area for ease to producer)
- Increased customer demand, science catching up with the organic management system. Buy local.
- It will grow
- Land availability due to loss of beef and hog industry. Problems in potato sector as well. Because on increase in unhealthy lifestyles, transportation costs, increasing buy local just might become a big trend. Developing your own market which is fostered by general continued



education of the public about the benefits and availability of organic produce/products cluster development to minimize cross contamination with fields located among commercial production limitless

- Local markets
- Many
- Marketing to local consumers directly
- more and more people realize food and health are related; organic can benefit from Buy Local programs
- need to emphasize the health of soil as a marketing tool.
- Organic farmer/consumer stores featuring locally grown organic food
- People will demand it, better nutrient content of food, increased yield, better chance to make \$
- Positioning NS as a leader in organic wines. Information delivery
- small scale, local production emphasizing nutritional value
- The buy local concept is huge in Europe. As is slow food. These carry simple concepts strongly connected to organics which consumers understand.
- The growth in the local market which is an entry point for those who want to operate at a smaller scale or at least start small
- The most likely opportunity is the growth of Farmer's Markets - We need consumers! I feel it is going to be hard to break into the grocery section and margins will be close.
- There is not enough product to meet demand. There are many avenues to sell product which have not yet been investigated in the Maritimes.
- Turning the plate around - penalize conventional farmers for use of harmful chemicals and not us in the certification process
- Unlimited
- We are an isolated area - good for purity of seed production

**I 1. Additional comments (Is there anything that you'd like to add, that we missed? Add another page if you'd like!)**

More research on use of more diversified poultry pasture forages, and their interaction in soil building, fertility, soil structure, disease control, of plants and birds. Using forages as above for part of winter feed.

Where we cannot plow and use regular renovation, we have a problem with weeds. Soil pH, OM levels, and drainage all play a part. When weeds get a foothold, they are hard to get rid of (specifically smartweeds)

I applaud what you folks are doing. I think we are on the verge of something big.

If the public wants to be serious about health, environment, and local social and economic well being, they need to be educated to avoid large companies. Buy produce from small local farmers- directly or indirectly - not from superstore or Sobeys.

Can GMO and organic mix, how much/how far will GMO pollen spread, so we have to worry.

I guess greenhouse production is the obvious one. Perhaps you had a good one not to include it. In fact, season extension in general. The idea of greenhouses makes people so glassy eyed. There is a big job to distill existing research down (New Alchemists, the project at McDonald College

and other more conventional info) to determine the exact research needs. Off hand, I would think disease.

Maple is only a very small part of our total farm production and revenue (<5%)

A start-up package to get people started in organic farming. Myself, I found that without proper lime, N sources, you are wasting time, but assistance to get productive is the key, we're not talking big subsidies, \$2000 - \$3000 anyway

Pleased to see the interest; overdue. Great to be involved in growth.

Important to link research to farmer needs/experiences. Strongly supportive of Ralph Martin's work.

It's great to have the opportunity to get one's "oar in" on where to focus research

Thanks for asking

I have been getting calls due to our webpage to sell beef in NS, Nfld and Ontario - lack of Federal plant keeps me very frustrated in not being able to sell. Richard Brown - Mountindale farm - I do not mind contact for additional comments

Sorry my time is limited to respond. Have noted items we would like implemented

As I said, I agree that standards have to be tough, but it is not fair that we have to jump through all those hoops in the certification process while our neighbour conventional farmer can spray whatever he wants and on top of it whenever he feels like it regardless of limitations - oh yeah, it's true.

Please be advised that these are opinions from a hobby farmer who owns 11 acres and does not rely on any income from farming. If the proper assistance is in place, Atlantic Canada can produce a strong desire for local organic products and allow our region to be self sufficient

Marketing should be allowed in big store chains

We need to find a better way to market our crops than as commodities; we need to value add locally and sell into a high value market; we need to work together to succeed

We need markets - no point in producing organic production if it ends up being sold as conventional. Also, local quality needs to be as good as imported organic. Also, our local consumers are fairly price sensitive as compared to more affluent centers.

In Newfoundland, the soil is rocky, acidic, and sandy. We need research on organic soil development. The five years it takes me to get new ground productive is too long

If organic increase their market value in total will increase but the product will return less per unit to the producer. Let's face it, corporate farms of thousands of ac will have to survive or we will have mass starvation and subsequent world war. Also corporate farms require large acreages, Atlantic provinces won't fit their future needs. Also these provinces have almost depleted their soils. Club has 14 dairy farmers at present 30-60 yr old purebred and commercial herds