Research Needs Assessment of Manitoba Organic Farmers

Organic Agriculture Centre of Canada
University of Manitoba
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Agriculture and Agri-Food Canada (AAFC) is pleased to participate in the production of this OACC Manitoba Organic Research 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 of AAFC.

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Executive Summary

Over 350 research needs surveys were distributed to organic farmers in Manitoba with a 15% response rate. The top research needs identified in this survey and similar surveys in other parts of Canada will be used to inform a prioritization process for research projects in different sectors.

Respondents farmed in 38 different municipalities across the province. Approximately one-half of respondents were farming in the southwest region of Manitoba. Field crop production dominated the production systems of survey respondents (84%), followed by livestock production (55%), and horticulture (22%). Many respondents were involved in more than one production sector.

Many producers were relatively new entrants to organic agriculture; 86% had 10 or fewer years in farming. Despite the large number of new entrants, only 20% of farmers were under the age of 40. Almost half of producers were in their fifties (47%). These statistics suggest that many respondents had entered organic agriculture later in life, either after farming conventionally or as a second career.

The top rated research needs in crop production emphasized holistic management systems including crop rotations, soil quality, and weed management issues. *Rotations for soil fertility* and *soil biology – management to improve existing soil life* were top rated issues in soils. Weed control and crop rotations were the top areas of concern among plant-related issues; weed-related issues made up five of the top seven plant-related research areas. Disease and insect controls were generally ranked lower and in both cases cultural controls were considered more important than other approaches such as biological controls. *Breeding/testing varieties* and *specialized equipment for organic systems* ranked fairly low among plant-related production issues.

Among animal-related issues, *parasites* were the highest rated issue of concern for livestock producers. Several respondents expressed interest in homeopathic and natural remedies to control parasites and diseases. *Grazing* was rated the second most important livestock research need. Respondents commented on the need for research on grass-fed beef and dairy cattle and also indicated interest in grazing systems for hogs, goats, sheep, poultry and bison, and in increasing Brix levels in pastures.

Ratings for research on production economics and value-added were somewhat lower than for many production-related issues. *Value added research* ranked first in this section, followed closely by research on the economics of *grain production*, *mixed farm production*, and *livestock production*.

Quality and nutrition of organic foods scored high in the overall analysis. Specific products of interest identified most frequently by respondents included wheat, oats, barley, flax, pasture-raised meats, and a variety of fruits and vegetables.

Soil quality was the highest ranked issue in the survey section on the contribution of organic to sustainability, and was the second highest ranked issue overall. *Biodiversity* was also ranked high among sustainability issues.

Overall, producers were most interested in having *research conducted on organic farms*. *Research conducted using farm scale equipment* and *research conducted at regional research and demonstration farms* were slightly lower in the ranking. In terms of research involvement, most farmers felt that *collaboration with researchers* and *producer advisory committees* were the best systems for their needs. *Producer initiated research* and producer *board determining direction of research dollars* were ranked lowest in this portion of the survey.

The top two post-production priorities for survey respondents in Manitoba were *consumer education on organic benefits* and *consumer education on the organic standard*. Market information including *information on buyers/brokers*, *information on commodity prices and volumes*, *buyer/seller matchmaking services*, and *information on market trends and demands* also ranked high in this section. Processing facilities for organic animal products, field crops, and fruits and vegetables were generally lower on the list, although individual sectors tended to rank processing facilities for their own product higher than other sectors. The horticulture sector rated most processing issues and many marketing issues higher than other sectors.

Factsheets on organic farming practices and *conferences* were the top-rated approaches to organic extension in Manitoba. Other popular forms of technology transfer included *websites/email*, *field tours*, *extension courses*, and *extension personnel*. College and university level courses including distance education ranked lowest. Most frequently mentioned methods of accessing information were the internet, books, factsheets, and phone. Many of the specific information needs mentioned in comments echoed the options provided as examples on the survey: *soil test fact sheets*, *buyers' preferences*, and *nutrient management planning*. Other production and marketing issues were also mentioned.

In Manitoba, the most significant barriers to the growth of organics described by survey respondents were marketing difficulties, issues related to certification and regulation, and agronomic challenges. Most respondents had a very hopeful outlook on the opportunities for growth of organics, mentioning growing consumer demand, societal interest in health and environmental issues, and opportunities offered by organic systems for long-term environmental, economic, and community sustainability.

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 the organic sector in Canada rests firmly on the success of the farmers. In considering this, the Organic Agriculture Centre of Canada (OACC) has endeavoured 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, 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-stage 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 to conduct a survey of organic producers in Canada, asking them to rate the importance of different areas of research and to provide comments on research needs and other issues facing the organic sector. This report summarizes the findings of the Manitoba portion of the survey results and is complemented by reports for other provinces or regions and a national report. The national and provincial reports can be found at www.oacc.info.

1.1 Survey Description

The mail-in survey was modeled on a survey previously used by Saskatchewan Agriculture and Food in 2001. It was redesigned for use in a nationwide survey of organic farmers in 2008, with slight variations for different regions in the country. The survey included primarily questions relating to production (soils, crops, pests, livestock) but also included sections on production economics, marketing, quality and nutrition of organic food, sustainability, design of research, and extension needs (see Appendix 1).

Producers were asked to rate the importance of various types of research, from 1 to 5. Each set of questions included space for comments; direct quotes from respondents' comments are in quotation marks and italics in the report. Producers were also asked production and demographic questions to aid in interpreting their responses. The respondents were asked for input on as many or as few sections as they desired to fill in. If someone chose not to respond to a question, it was not included as part of the analysis. The number of

respondents who responded to a specific question is referred to as "n" in the survey analysis.

This report deals with several major topics, corresponding to the organization of the survey. Reporting of ratings and comments in this report follows the same general approach as the OACC national report (*Final Results of the First Canadian Organic Farmer Survey of Research Needs*, OACC, 2008). Where appropriate, the national report and the Manitoba report share entire passages of text. Data for Manitoba may differ slightly between the national report and the Manitoba report because of slight differences in certain analyses and because surveys returned late were included in the Manitoba report. The format of the Manitoba report and reports for the provinces of Saskatchewan and Alberta are very similar to facilitate comparisons between provinces.

1.2 Survey Distribution and Response Rate

With the assistance of our partners, OACC distributed 358 surveys to organic or transitional producers, processors, and retailers in Manitoba. There were 55 surveys returned, corresponding to a **15.4%** response rate. Ninety-three percent of returned surveys were from producers and 7% were from processors (seed cleaners/processors).

1.3 Respondent Demographics

A total of **55** surveys were partially or fully completed and returned. Respondents farmed in 38 different municipalities across the province, ranging from Kelsey R.M. (The Pas) in the north, Lac du Bonnet R.M. in the east, Stuartburn, Franklin, Stanley, and Turtle Mountain R.M.'s in the south, and Wallace, Shellmouth-Boulton, and Shell River R.M.'s in the west. Approximately one-half of respondents were farming in the southwest region of Manitoba. Over 80% of respondents farmed in the black soil zone, 17% farmed in the dark grey zone and 5% in the grey soil zone (total is greater than 100% because several respondents farmed in more than one soil zone).

Respondents were classified into three major production sectors based on their indication of which organic products they currently produced and intended to produce in the near future (Table 1). Major sectors were field crops, livestock, and horticultural crops. These major sectors were broken down into more specific production sectors for some analyses. Certain products specified by producers did not fall clearly into a specific production sector and were designated as follows: wild rice was considered a cereal; flowers, flower seeds, and vegetable seeds were included with vegetables; medicinal crops such as Echinacea and sea buckthorn were included with herb and spice crops; forage seed was included with forages; hempseed was considered an oilseed. Several respondents indicated that they produced livestock, but did not specify an organic livestock product. We made the assumption that these producers have livestock operations that are not certified organic; these were included as "future" producers of organic livestock in Table 1.

The analysis of the data by sector means that a producer with a mixed farm could be considered as part of the field crop, livestock, and horticulture sectors, for example, and their ratings of subject areas in the survey would be considered for all three categories. However, their answers would only be considered as one response in the analysis of all data combined.

Table 1. Summary of 55 respondents by sector and product.

	Current producers	Future producers*	Total producers: current plus future		
			number	% of all respondents	% of sector
All			**55**	**100%**	
Field crops	**45**	**1**	**46**	**84%**	
Cereals	43	1	44		96%
Oilseeds	22	5	27		59%
Pulses	11	6	17		37%
Forages	33	3	36		78%
Horticultural crops	**9**	**3**	**12**	**22%**	
Fruit	7	0	7		58%
Vegetables	7	3	10		83%
Herbs/spices	4	0	4		33%
Livestock	**18**	**12**	**30**	**55%**	
Beef	14	13	27		90%
Bison	1	0	1		3%
Dairy	1	1	2		7%
Swine	5	1	6		20%
Sheep	2	1	3		10%
Goats	2	0	2		7%
Poultry	5	3	8		27%
Processors	**4**	**0**	**4**	**7%**	

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

Eighty-four percent of Manitoba respondents produced or plan to produce **field crops** (Table 1). Almost all field crop producers produced **cereals** and many grew **forages** and **oilseeds**. **Pulse** crops were the type of field crop least commonly grown.

The **livestock** production sector included 55% of all respondents (Table 1). Of these, 87% indicated production of one or more certified organic livestock-based products; the other 13% were assumed to have livestock operations that are not certified and were considered "future" organic livestock producers. Ninety percent of all livestock producers (almost half of all respondents) produced or plan to produce **beef cattle**. **Poultry** and **swine** sectors were next largest, followed by small number of **sheep**, **goat**, **dairy**, and **bison** producers.

Twenty-two percent of respondents produced or planned to produce **horticultural crops** (Table 1). Many of these produced **vegetables** and several produced **fruits and berries** and/or **herbs and spices**.

Several survey respondents (7%) indicated that they were **processors** of organic products. These included seed cleaning/processing operations and a hempseed processor. This data set was considered too small to be presented as a separate category in analysis of research need ratings. Ratings by these respondents are still included in the "all" category and their comments have been included in the assessment.

Many respondents indicated participation in more than one production sector, suggesting that a large proportion of organic farms in Manitoba are mixed operations. Sixty-six percent of field crop producers also produced livestock. Of all livestock producers, 97% also produced field crops and 33% produced or planned to produce more than one type of livestock. Of all horticultural crop producers, 42% produced more than one type of horticultural crop (i.e. vegetables, fruit/berry, herb/spices), and 67% also produced field crops and/or livestock.

The average farm size across all Manitoba respondents was 934 acres, 626 acres (67%) of which was certified organic (Figure 1). The average cultivated area per farm was 570 acres and approximately the same percentage of this (66% or 378 ac) was certified organic. The average area devoted to pasture and/or grazing per farm was 268 acres, 179 acres of which was certified organic (67%). "Other" was also included as a category and the average area included here was 100 acres, 76 acres of which was certified organic (76%). The "other" category had various applications including bush, wild rice production, and fruit production as well as a few cases where respondents did not specifically itemize their land use acreage.

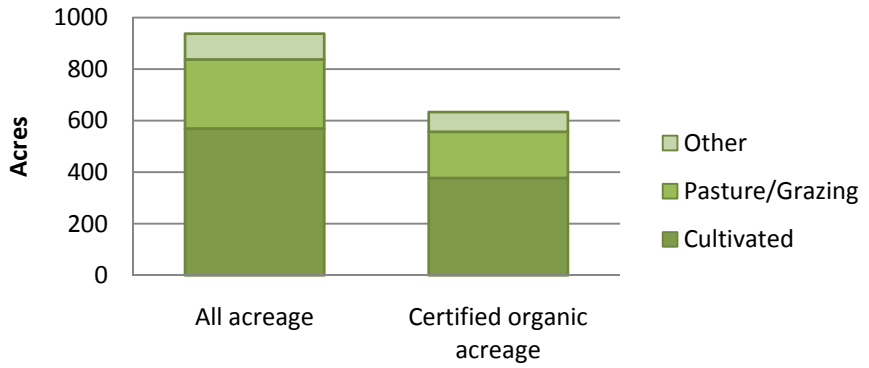

Figure 1. Average acreage by type among respondents.

Farm size by sector was calculated in an inclusive manner (Figure 2). The Horticulture sector, for example, included all producers of horticultural crops regardless of their production of other crops or livestock. Among sectors, the average farm size was greatest for livestock producers, at 775 certified organic acres, followed closely by field crop producers at 706 certified organic acres. Farms producing horticultural crops were smallest, averaging 387 certified organic acres. When producers of field crops were excluded from the calculation of farm size for the horticulture sector, the average farm size was 59 certified organic acres.

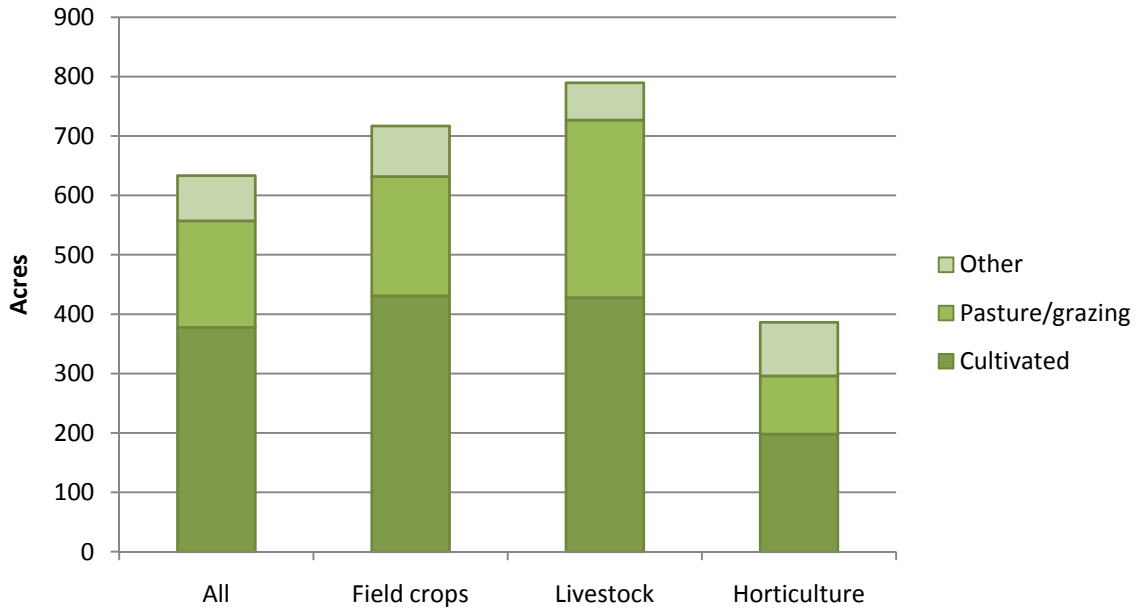

Figure 2. Certified organic acreage of respondents by agricultural sector.

All production sectors displayed a substantial degree of diversity in land use since the majority of farms were involved in more than one production sector. The proportion of land designated as “cultivated” was greatest in the field crops sector (60%) and comprised at least 50% of the total acreage in all sectors. The proportion of land devoted to pasture and

grazing was greatest in the livestock sector (38%). The "other" category was largest in the horticulture sector (23%), possibly reflecting land planted to perennial fruit crops.

Gross farm income (Figure 3) was greater than $100,000 for 45% of survey respondents (n=42). Small operators (under $25,000) made up 21% of respondents and the remaining 34% had gross farm incomes between $25,000 and $100,000.

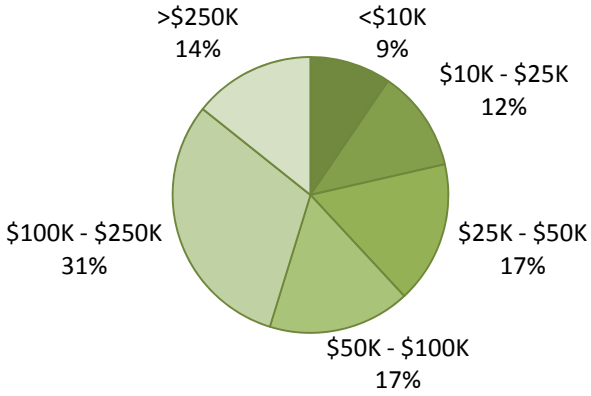

Figure 3. Gross farm income by income category.

Many producers were relatively new entrants to organic agriculture; 86% had 10 or fewer years in farming and only 6% had been farming organically for longer than 15 years (n=48; Figure 4). Despite the large number of new entrants, most farmers were over the age of 50 and only 20% were younger than 40 years of age (n=51; Figure 5). Almost half of producers were in their fifties (47%). These statistics suggest that many respondents had entered organic agriculture later in life, either after farming conventionally or as a second career, hobby, or lifestyle choice.

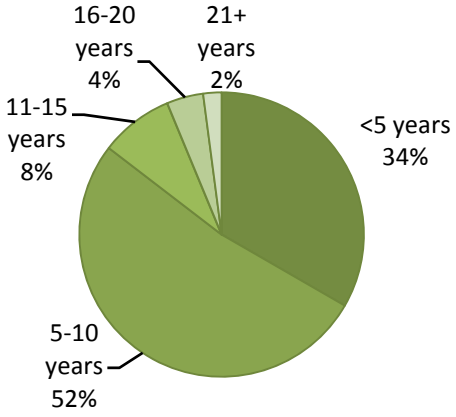

Figure 4. Years in organic production by category.

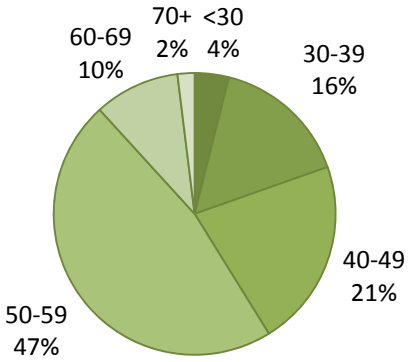

Figure 5. Producer age by category.

Eighty percent of producers identified themselves as male, and 16% as female (n=50). Although not a survey choice, the remaining 4% of respondents indicated that they were in a partnership as a couple relationship.

2. Production Research

The survey included questions on eleven major subject areas related to organic production research, including soils, several topics in crop production, livestock production, production economics, food quality and nutrition, and sustainability. For each of these sections, respondents were asked to rate the importance of the category as a whole, as well as more specific subject areas within each category.

According to the ranking of section headings, *managing soil fertility and soil quality/health* was the most important category of production research for Manitoba organic farmers (Table 2). *Animal health and nutrition*, *managing weeds*, and *crop rotations* also ranked high on the list. *Specialized equipment for organic production systems* received the lowest rating.

Table 2. Ranking of Research Needs Categories by all respondents.

Ranking	Category	Average Score*	n†
1	Managing soil fertility and soil quality/health	4.80	44
2	Animal health and nutrition‡	4.72	18
3	Managing weeds	4.63	43
4	Crop rotations	4.60	40
5	The contribution of organic to sustainability	4.51	41
6	Quality and nutrition of organic foods	4.43	44
7	Managing crop diseases	4.00	41
8	Managing crop insect pests	3.98	40
9	Breeding/testing varieties for suitability in organic systems	3.93	41
10	Production economics	3.90	40
11	Specialized equipment for organic production systems	3.41	39

* Average score indicates the average importance rating of all individuals who responded to the question; 5 indicates a very important need, 1 indicates a less important need.

† 'n' is the number of respondents who answered each question. Blank responses to a question were not included in calculation of the average score, hence the variation in the number of respondents to each question.

‡ Producers were asked to answer this question only if they raised livestock.

Ratings for all individual production research subject areas were also compared and are listed in Table 3. Like the rankings of section headings (Table 2), the top research needs identified in this list emphasize a cropping systems approach focusing on soils, rotations, and the interactions between soil, crops and pests. One difference between the two lists of priorities is the ranking of *animal health and nutrition*: this category ranked second among section headings (Table 2) but the top animal-related subject area (*parasites*) was only 14th on the list of individual subject areas (Table 3). Ratings for main categories (Table 2) tended to be higher than the top subject area within that category (Table 3). Subject area rankings will be explored in greater depth in the following analysis of each research category.

Table 3. Top 20 research needs ratings (out of 45 subject areas in total) among all respondents.

Ranking	Category	Subject Area	Average Score*	n†
1	Soil	Soil fertility and crop rotations	4.68	50
2	Sustainability	Soil quality	4.61	46
3	Managing weeds	Canada thistle control	4.56	48
4	Soil	Biology - improve existing soil life	4.55	47
5	Managing weeds	Rotations for weed control	4.48	52
6	Crop rotations	Ecological interactions in rotations	4.46	50
7	Crop rotations	Beneficial rotations for specific problems	4.44	50
8	Managing weeds	Cultural weed controls	4.42	50
9	Managing weeds	Wild mustard control	4.38	47
10	Quality/nutrition of organic foods	Quality/nutrition of organic field crops	4.37	41
11	Sustainability	Biodiversity	4.33	45
12	Managing weeds	Mechanical weed controls	4.33	49
13	Crop rotations	Long term cropping systems research	4.31	49
14	Animal health and nutrition	Parasites‡	4.23	26
15	Managing crop diseases	Cultural disease controls	4.20	50
16	Managing crop insect pests	Cultural insect controls	4.18	50
17	Sustainability	Pesticide reduction	4.17	46
18	Sustainability	Energy use	4.15	46
19	Managing crop diseases	Enhancing natural disease controls	4.10	48
20	Animal health and nutrition	Grazing‡	4.08	26

* Average score indicates the average importance rating of all individuals who responded to the question; 5 indicates a very important need, 1 indicates a less important need.
† 'n' is the number of respondents who answered each question. Blank responses to a question were not included in calculation of the average score, hence the variation in the number of respondents to each question.
‡ Producers were asked to answer this question only if they raised livestock.

2.1 Soils

Survey respondents identified *rotations (green manures and crop rotation for soil fertility)* as the top research need in the area of soils (Figure 6). This subject area was also the top ranked research and marketing issue overall (Table 3). S*oil biology – management to improve existing soil life* was ranked second in importance, and was fourth overall. All other soils issues were rated substantially lower than these top two research needs.

Certain soils issues were rated differently by different production sectors. The livestock sector ranked *soil biology – adding living organisms* and *manure management* higher than other sectors. The horticulture sector was more interested in *soil chemistry – salinity* and *soil chemistry – trace elements* and less interested in *soil chemistry – N,P,K,S management* than other sectors.

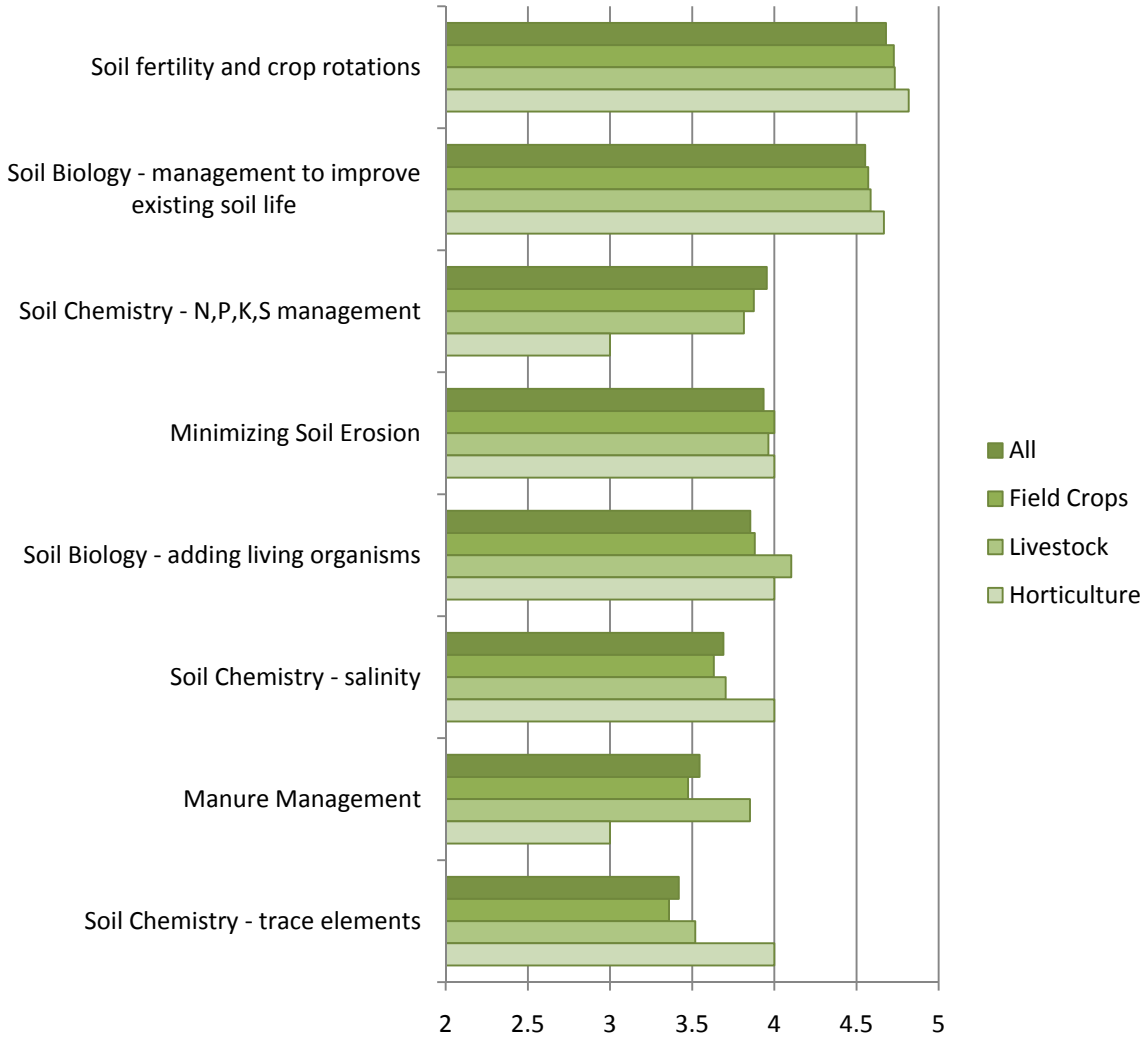

Figure 6. Research needs ratings for soil-related issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

Comments on soil-related research indicated a high level of interest in soil fertility and soil biology. The need for monitoring techniques for soil microbial life, both for organic research and for farmers, was mentioned several times. There was considerable interest in the value of soil amendments such as "*fermenting compost tea with rock phosphate*", liquid fish, molasses, humic and fulvic acids, micronutrients, and mycorrhizal inoculants. Other issues arising from comments included composting of manure, phosphorus availability in alkaline soils, raising the Brix (soluble sugar) levels in plants, mulching, reclaiming saline patches, enhancing nutrient use efficiency, reducing tillage, and lowering soil pH.

2.2 Plants

Weed control and crop rotations were the top areas of concern among plant-related issues, based on responses from all surveys (Figure 7). Control of specific problem weeds ranked first (*Canada thistle*) and sixth (*wild mustard*) of plant issues and were in the top nine issues overall (Table 3). Other high-ranking weed control issues included *crop rotations for weed control*, *cultural weed controls* and *mechanical weed controls*. Other aspects of crop rotation were also high on the list of priorities, particularly *ecological interactions in rotations* and *beneficial crop rotations for specific problems*.

Disease and insect controls were generally ranked lower in this section and in both cases cultural controls were considered more important than other approaches such as biological controls in the all-sector analysis. *Breeding/testing varieties* and *specialized equipment for organic systems* ranked fairly low in this portion of the survey.

Differences in ratings among sectors were evident. Field crop producers were more interested in most crop rotation and weed control issues and in *specialized equipment for organic systems* than other sectors. The horticulture sector displayed more interest in *biological weed controls* and in all forms of disease and insect controls. Livestock producers were most interested in *cultural weed controls* and *wild mustard* control.

2.2.1 Weeds

Weeds were a high priority for Manitoba organic farmers with weed-related issues making up five of the top seven plant-related research areas. *Canada thistle* and *wild mustard* control were among these top-rated subject areas, confirming these weeds' status as significant problems on organic farms in Manitoba. Survey respondents also commented on the need for weed control programs for other weeds such as quackgrass, leafy spurge, dandelion, wild buckwheat, wild oats, green foxtail, redroot pigweed and others.

Overall, producers demonstrated a systems oriented approach to weed control, ranking *rotations for weed control*, *cultural weed controls* and *mechanical weed controls* high on the list. Producers of horticultural crops were different from most other sectors, ranking *biological weed controls* highest of all plant-related issues. *Organic herbicides* were ranked lowest for all sectors.

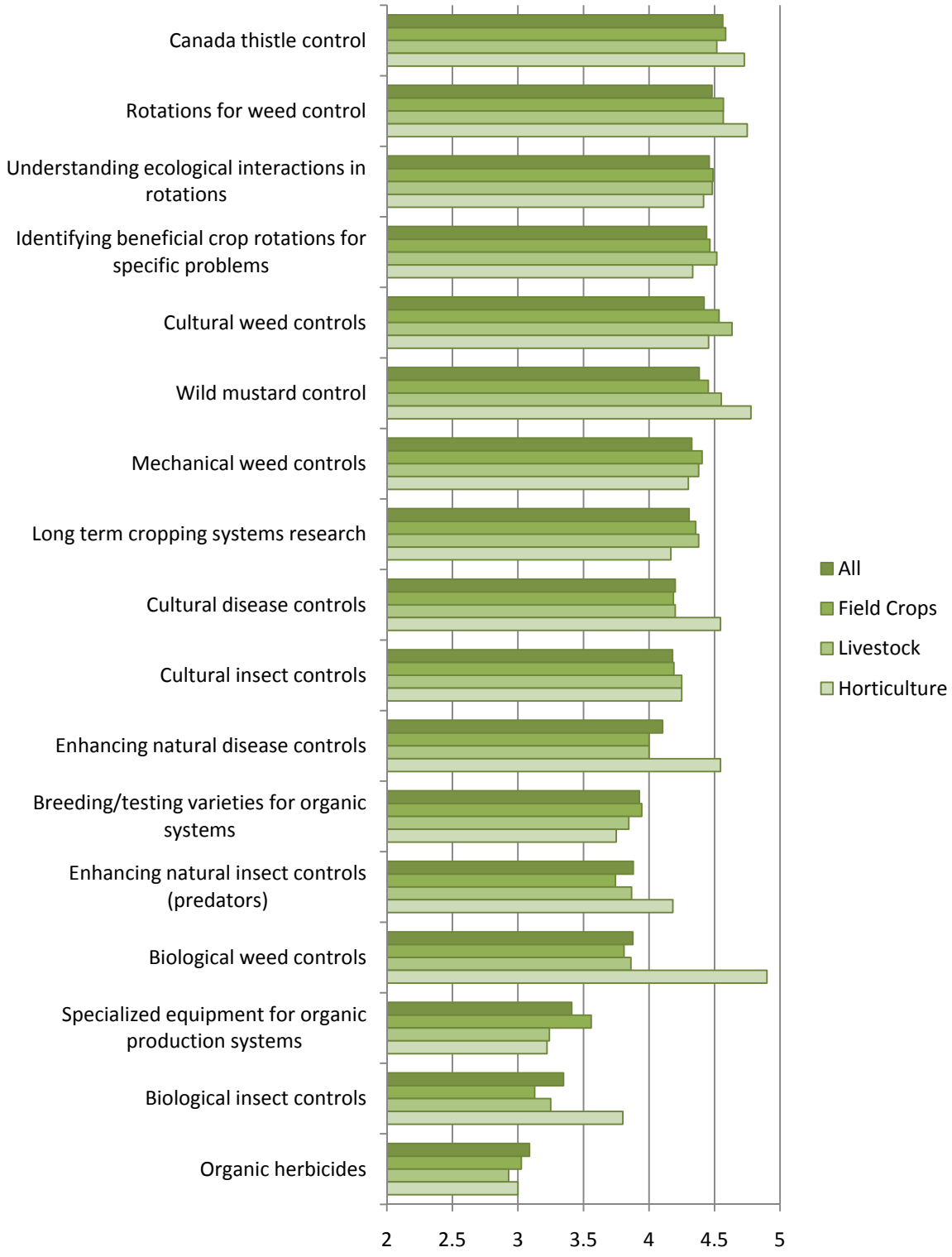

Figure 7. Research needs ratings for plant-related issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

Many respondents provided comments on other weeds research they would like to see. Specific areas of interest included timing of weed control practices, weed suppression by crops, the relationship between soil health/fertility and weeds, reducing tillage, the nutritional value of kochia for human consumption, and using specific weeds as indicators of site conditions.

2.2.2 Insects

Management of crop insect pests was not a high priority for most Manitoba producers. The horticulture sector was more interested in insects than other sectors, but still ranked insect-related issues lower than weeds and diseases.

Insect-related research of interest to respondents included the role of plant health and Brix levels in preventing insect problems, population monitoring techniques, and the role of a specific insect in biological control of Canada thistle. Specific problematic insect species mentioned were Colorado potato beetle, diamondback moth in sunflower, whitefly in greenhouses, sawfly, wheat midge, lygus bug in alfalfa, and grasshoppers.

2.2.3 Disease

Plant disease issues generally ranked below weed and crop rotation issues but above insect pest issues. Cultural controls were considered more important than enhancing natural controls. The horticulture sector displayed much stronger interest in disease issues than other sectors.

Comments on plant disease issues included interest in research on specific diseases (fusarium, tan spot, sclerotinia in sunflower and peas, ergot), the role of soil fertility and microbial life in reducing disease pressure, developing crops with disease resistance, and the use of compost teas for disease control.

2.2.4 Crop Rotations

Topics related to crop rotations appeared high on the list of priorities for Manitoba organic farmers who responded to the survey. The three questions directly related to crop rotation (*understanding ecological interactions in rotations*, *beneficial crop rotations for specific problems*, and *long term cropping systems research*) were among the top eight plant-related issues.

Crop rotation research suggested by respondents included intercropping, fertility in rotations, rotations for vegetable crops, increasing Brix levels in pastures, and including livestock grazing and bale grazing in rotations.

2.2.5 Varieties for Organic Systems

While *breeding/testing varieties for organic systems* was ranked fairly low among plant-related issues, many respondents provided comments on specific crops and variety/breeding issues that they felt should be the focus of this type of research. Many

expressed interest in cereal crops, especially wheat. Oats, flax, and barley were also mentioned multiple times. Specific cereal and oilseed related issues that were mentioned included hardiness of winter wheat and spelt, disease resistance, suitability of modern and heritage varieties for organic systems, relation of yield to plant height or leaf area, and oats for milling vs. feed.

Other areas of interest included low tannin fababeans, heat and frost tolerance in vegetable crops, forages and grains for dairy, resistance to sclerotinia in hemp, growing organic canola, open pollinated sunflowers, and corn and locally adapted crops.

2.2.6 Specialized Equipment for Organic Systems

Survey respondents ranked *specialized equipment for organic systems* low on the list of crop-related issues. There were, however, many comments expressing interest in specific types of equipment. Many respondents echoed the equipment needs that were provided as examples for this question in the survey (weed clippers, chaff collectors, crimpers/rollers). Equipment for reduced tillage and mulch systems was mentioned several times. Several comments expressed interest in using existing equipment in effective ways, such as using "*a Noble blade cultivator … to cut weeds in flax stubble after harvest, so rye or winter wheat could be planted*" or using a moldboard plow in late October on heavy soils for weed control without causing soil erosion. Also mentioned were equipment for brewing and applying compost tea, rotary hoes, weeders for water plants (wild rice production), harrows for in-crop weed control, finger weeders, and rotary harrows.

2.3 Animals

Ratings for livestock issues were calculated for all current and future livestock producers and for beef, swine, and poultry producers, the three largest livestock sectors according to survey data.

Among animal-related issues, *parasites* were the highest rated issue of concern for livestock producers (Figure 8). Swine producers in particular gave *parasites* a high rating. In comments, producers mentioned both internal and external parasites for a variety of livestock, primarily lice on cattle and sheep. Hogs, goats, and poultry were also specified as types of livestock for which parasites were a concern. Several respondents expressed interest in homeopathic and natural remedies to control parasites and diseases, including diatomaceous earth, flax straw, garlic, and aloe vera.

Grazing was rated the second most important research need. Interestingly, swine and poultry producers rated grazing higher than beef producers. Respondents commented on the need for research on grass-fed beef and dairy cattle and also indicated interest in grazing systems for hogs, goats, sheep, poultry and bison. Another area of interest was "*how to get a higher Brix pasture*" and the effect of higher Brix feeds on animal health.

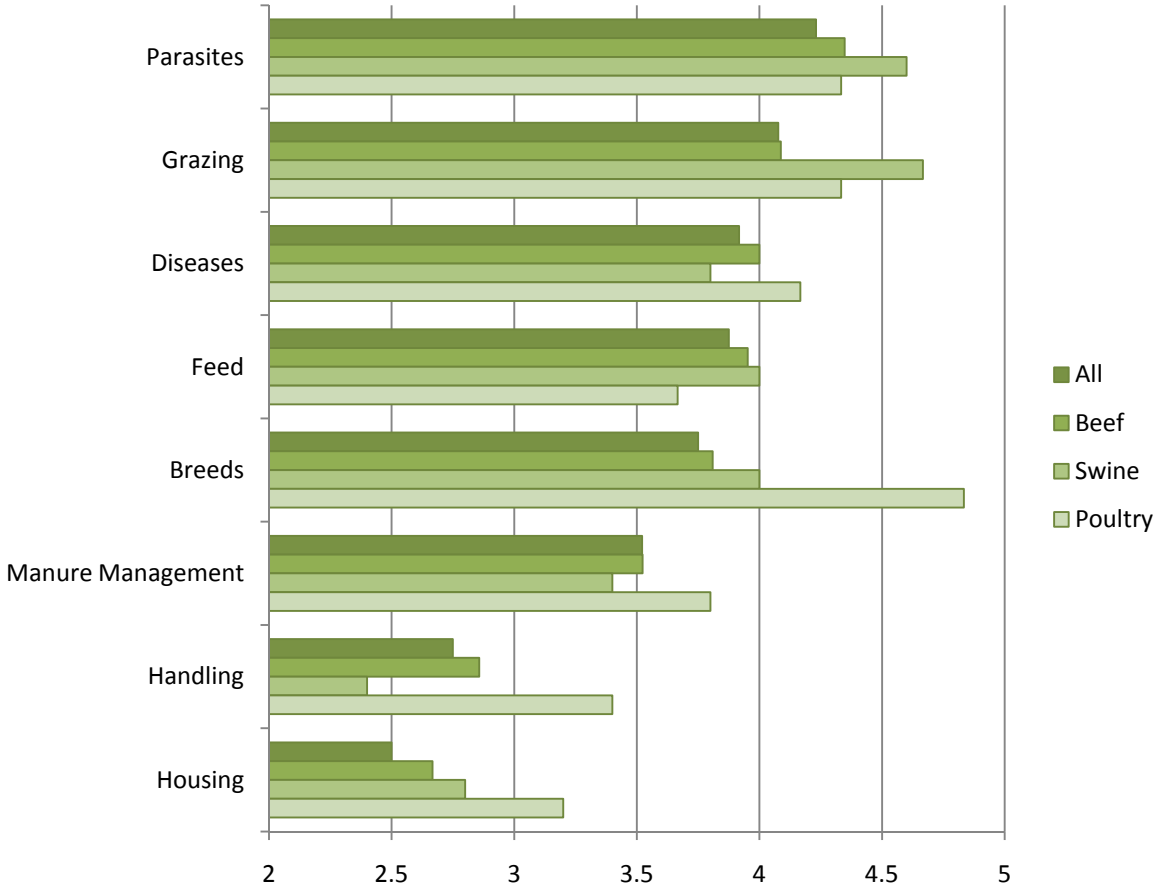

Figure 8. Research needs ratings for livestock issues by major livestock producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

Poultry producers were most interested in *breeds* and also ranked *grazing* and *diseases* fairly high. They also displayed more interest in *manure management*, *handling*, and *housing* than other livestock producers.

Other specific issues mentioned in comments included the need for "*inexpensive compost systems*" and the "*symbiosis between species and various crops*".

3. Other Research Needs

3.1 Production Economics

Ratings for research on production economics and value-added were somewhat lower than for many production-related issues (Figure 9). *Value added research* ranked first in this section, followed closely by research on the economics of *grain production*, *mixed farm production*, and *livestock production*. In general, individual sectors were more interested in the production economics for their particular sector than for other sectors, although livestock producers ranked *mixed farm production* higher than *livestock production*. Production economics of horticulture and dairy production ranked low overall, probably due to the small number of producers involved in these sectors.

Survey respondents were asked to indicate which crops or animals should be targeted for research on production economics. Several producers expressed interest in the economics of hemp and camelina production, which were offered as examples in the survey question. Also mentioned were beef, heritage breeds and varieties, vegetables, honey, and a wide range of other common crop and livestock species. Some comments stressed the importance of only devoting research to products that "*have a definite market*".

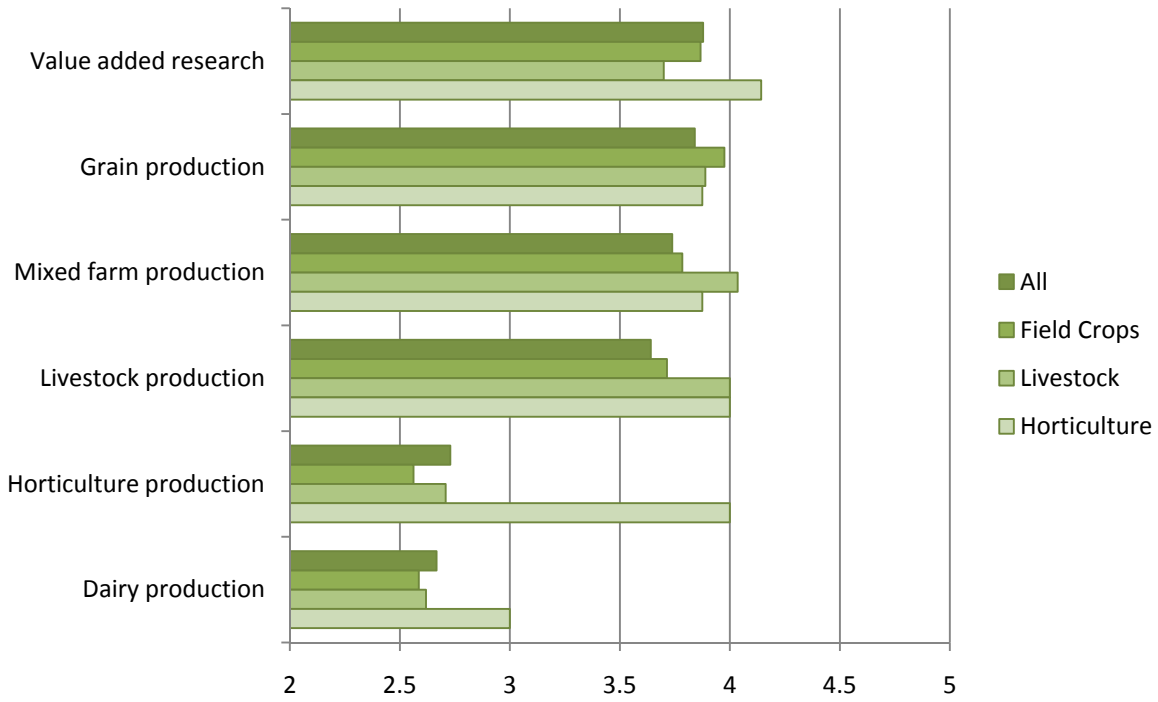

Figure 9. Research needs ratings for production economics issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

When asked to suggest which value added projects they would like to see researched, many respondents echoed the examples given in the question, specifically cleaning plants, wild oat oatmeal, and birdseed. There was also interest in a variety of grain processing projects – flour milling, flax crushing, oilseed pressing, dehulling sunflower and buckwheat, and hemp processing. Adding value to meat products appeared several times in comments, specifically the need for "*mobile, multi-species abattoirs*". Also mentioned were seed with both organic and blue tag certification, wild rice processing, sprouts, wool and textiles, "*agri-eco-tourism*", and storage and shelf life issues for vegetables and other products without preservatives.

3.2 Quality and Nutrition of Organic Foods

Quality and nutrition of organic field crops scored high in the overall analysis, ranking tenth out of all production-related research needs (Table 3). Interestingly, all three major sectors, including the horticulture and livestock sectors, ranked *quality and nutrition of field crops* higher than the quality and nutrition of other product groups (Figure 10).

Specific products of interest were identified by many respondents. The field crops mentioned most frequently were wheat, oats, barley, and flax; also suggested were hemp, beans, spelt, alfalfa, peas and canola. Animal products of interest included beef, poultry, pork, lamb, bison, dairy, sheep, and specifically pasture-raised meats. Horticultural crops mentioned were tomatoes, potatoes, apples, carrots, and saskatoons, as well as vegetables in general.

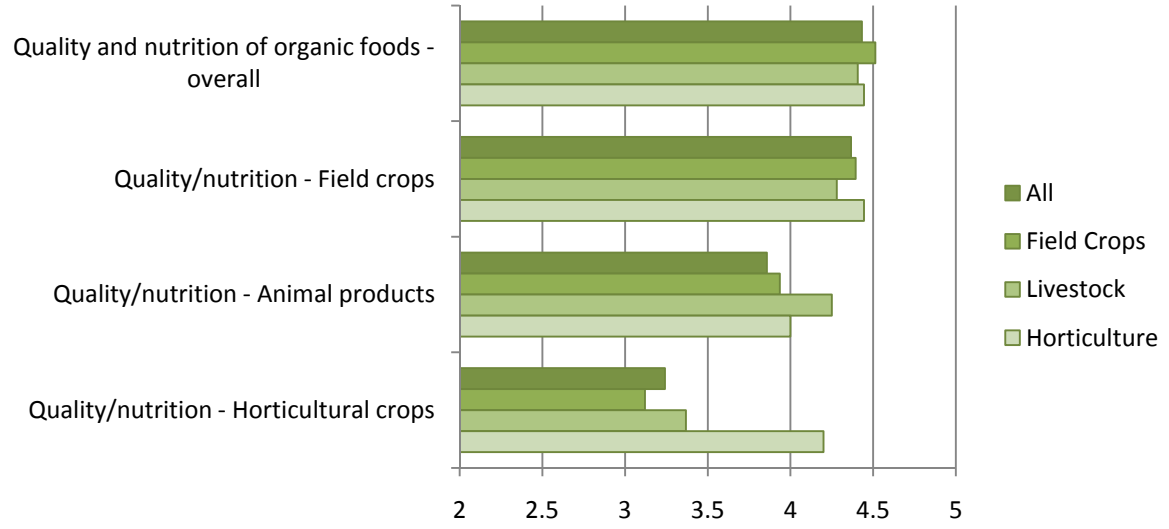

Figure 10. Research needs ratings for health and food quality issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

When asked to suggest other areas of food quality research, respondents expressed considerable interest in comparisons between conventional and organic foods, low cost testing for pesticide residues, Brix levels, the role of soil health and biology in producing nutritious foods, Omega-3 eggs and beef, loss of nutrients in processing, shelf life, wild rice, and weeds that may be nutritionally important.

3.3 Contribution of Organic to Sustainability

Soil quality was the highest ranked issue in the survey section on the contribution of organic to sustainability (Figure 11), and was the second highest ranked issue overall (Table 3). *Biodiversity* was also ranked high in this section. *Sequestering carbon* was ranked lowest. The horticulture sector was more interested in all issues in this section than other sectors.

In comments on sustainability research, respondents expressed interest in soil and water quality, alternative energy sources, fuel use, reduced tillage, and the impact of organic farming on wildlife, specifically prairie songbirds. One respondent indicated a need for "*unbiased energy budgets for organic vs. commercial agribusiness vs. diversified, mixed, common-sense old-fashioned farms*". Also mentioned were issues related to economic and social sustainability of small family farms, "*whole*" organic farms, and local food systems.

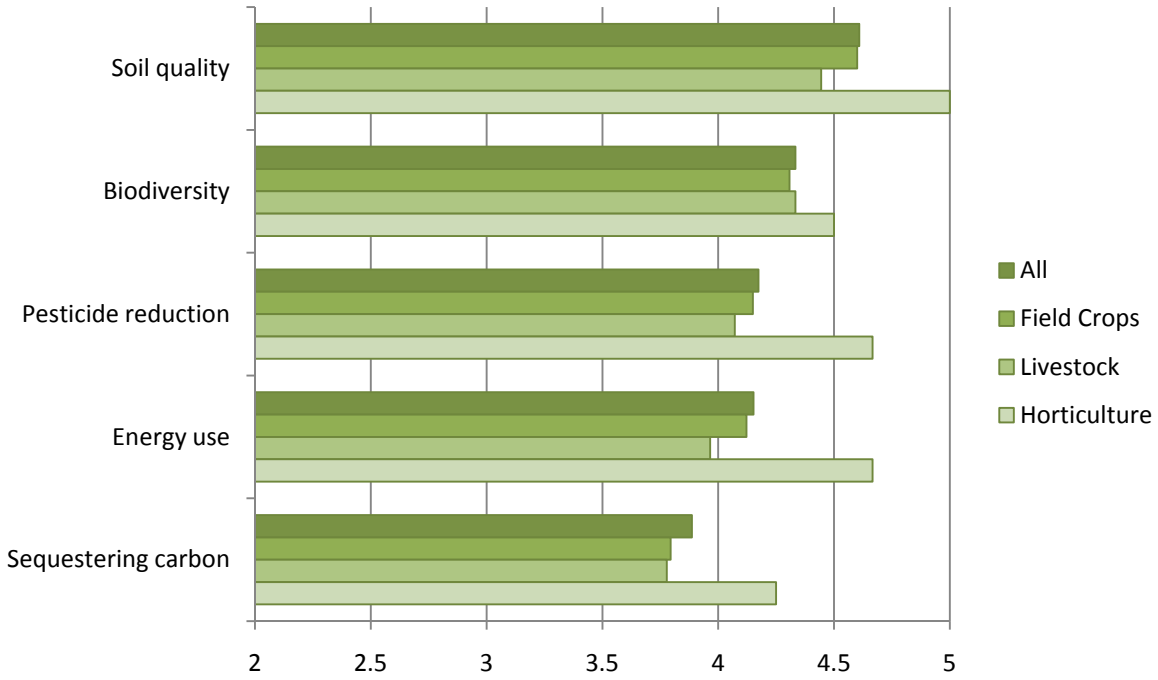

Figure 11. Research needs ratings for sustainability issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

4. Research Management

This portion of the survey attempted to gauge organic producer opinions about where research should be conducted and the level of involvement of producers in research.

Overall, producers were most interested in having *research conducted on organic farms* (Figure 12). *Research conducted using farm scale equipment* and *research conducted at regional research and demonstration farms* were ranked slightly lower. In terms of research involvement, most farmers felt that *collaboration with researchers* and *producer advisory committees* were the best systems for their needs. *Producer initiated research* and producer *board determining direction of research dollars* were ranked lowest in this section.

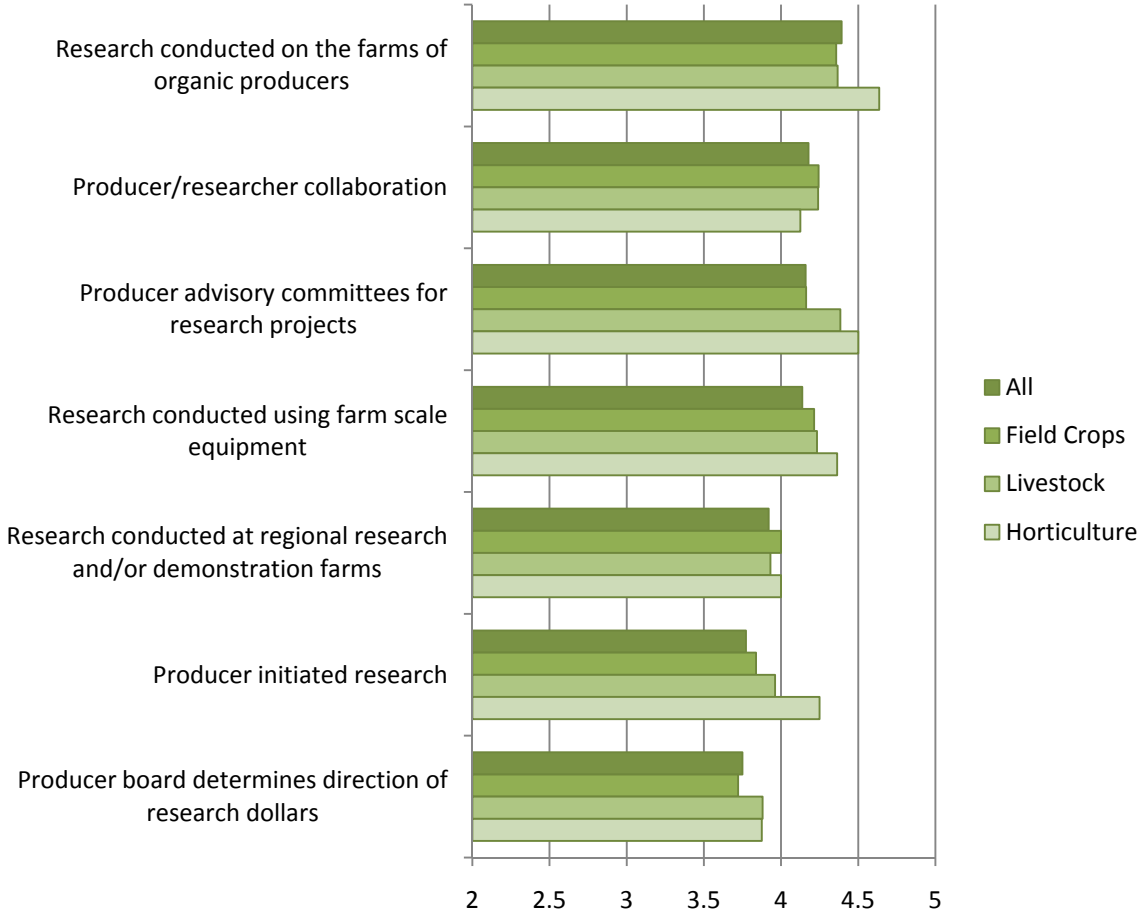

Figure 12. Research management need ratings by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

Ratings on various approaches to research management varied among production sectors. The livestock sector rated *producer advisory committees* and *producer initiated research* higher than the overall average. The horticulture sector was more interested in *on-farm*

research, *producer advisory committees*, *research conducted using farm scale equipment*, and *producer initiated research* than the overall average.

Comments from survey respondents on research management ranged from supportive to skeptical. One respondent cautioned against overspending on research since "*results of studies can be very misleading*" and another reported not finding results from organic research very useful. Another urged researchers to "*not reinvent the wheel*" and to "*obtain budgets to travel and learn*" from research centres in the United States and Europe. Several commented on the value of producer involvement and on-farm research, while noting that it was less practical for researchers and that "*where ever research is done there needs to be a certain level of soil life and fertility*". Several producers demonstrated their support for on-farm research by offering, in this section and elsewhere in the survey, to participate in such projects. Other comments stressed the importance of helping achieve farmers' goals, public funding for research, and answering producers' questions quickly.

5. Post-Production Needs

The section of the survey on post-production needs dealt mainly with marketing and processing issues. The top two post-production priorities for survey respondents in Manitoba were *consumer education on organic benefits* and *consumer education on the organic standard* (Figure 13). Market information including *information on buyers/brokers*, *information on commodity prices and volumes*, *buyer/seller matchmaking services*, and *information on market trends and demands* also ranked high in this section. Processing facilities for organic animal products, field crops, and fruits and vegetables were generally lower on the list, although individual sectors tended to rank processing facilities for their own product higher than other sectors. The horticulture sector rated most processing issues and many marketing issues higher than other sectors.

Comments in this section covered a range of issues including difficulty selling certain crops, limited supply of certain crops, and lack of marketing expertise. Also mentioned were the need for testing of organic crops, cooperative marketing, local organic food in schools, and easily accessible contact information for producers and buyers.

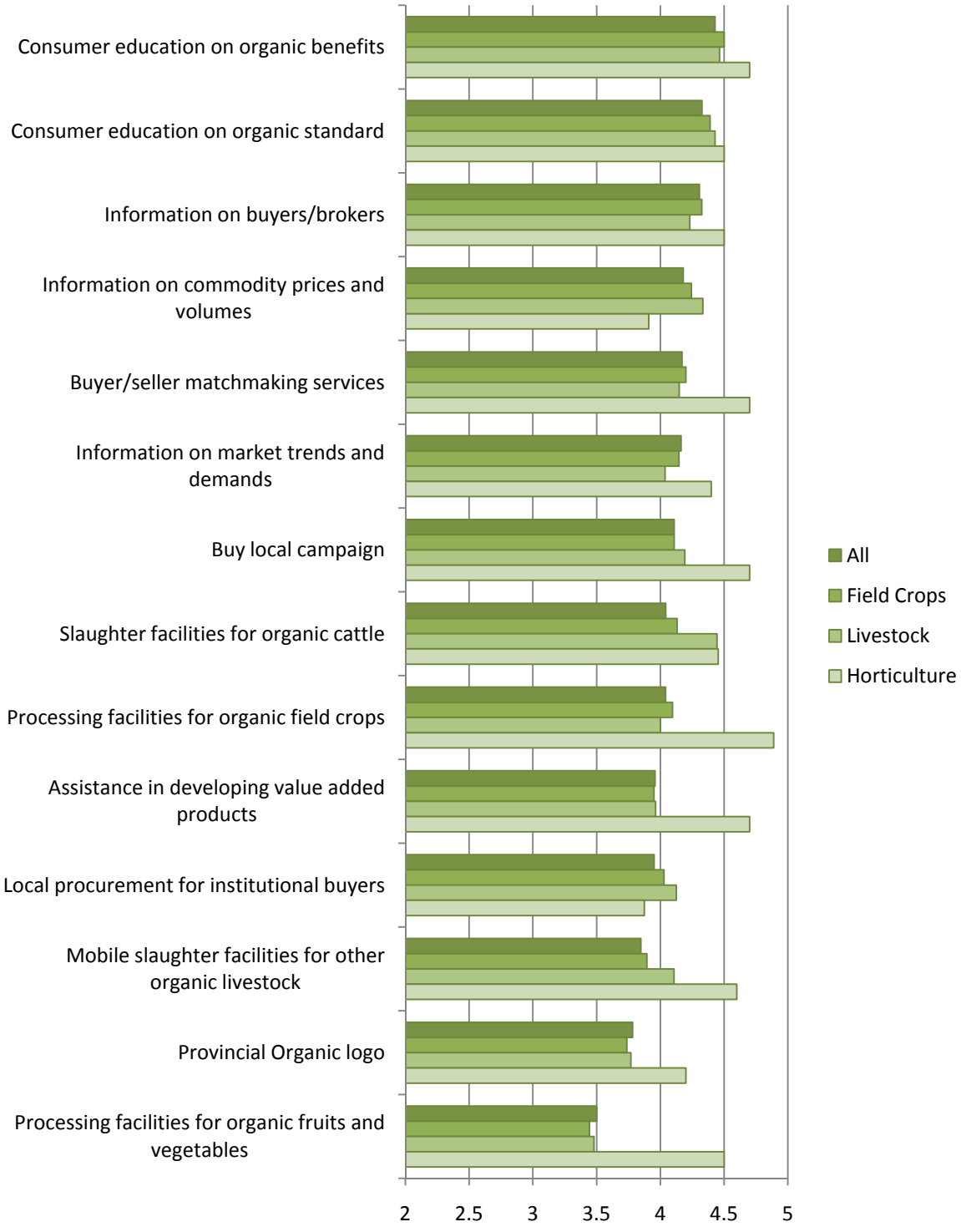

Figure 13. Research needs ratings for marketing and processing issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

6. Extension/Technology Transfer

Factsheets on organic farming practices and *conferences* were the top-rated approaches to organic extension in Manitoba (Figure 14). Other popular forms of technology transfer included *websites/email*, *field tours*, *extension courses*, and *extension personnel*. Lowest ranked were college and university level courses included those offered by distance education.

When asked to indicate how they prefer to access information, the most frequently mentioned methods were those provided as examples in the survey question: the internet (64% of all respondents), books (45%), factsheets (31%) and phone (29%). Respondents also mentioned conferences and seminars, personal communication with other producers, and CDs or DVDs that can be listened to while working in the field.

In terms of specific information that farmers would like to have, about 25% of respondents noted an interest in each of the three options provided as examples on the survey: *soil test fact sheets*, *buyers' preferences*, and *nutrient management planning*. In addition to those topics, soil building, phosphorus management, weed control, marketing information, green manuring, pest management, composting, nutritional value of organic products, buyer contacts, crop rotations, the economics of crop production, and information on products such as mycorrhizal inoculants and compost teas were listed as important information needed by organic producers. Also mentioned was the need for a "*Manitoba growers list available to the general public in all organic stores*" including large supermarkets.

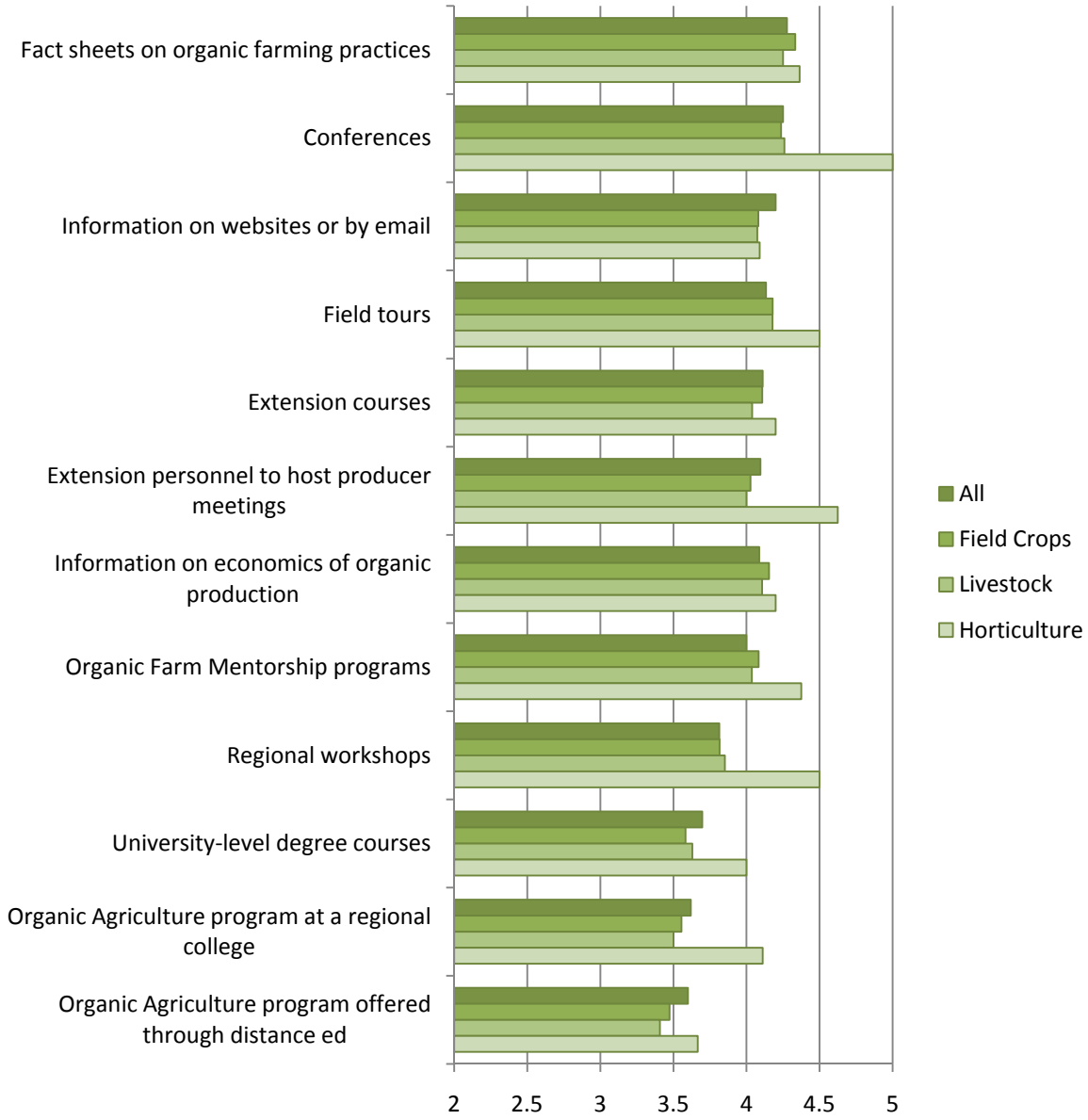

Figure 14. Research needs ratings for extension and technology transfer issues by producer category. A rating of 5 indicates a very important need, 1 indicates a less important need.

7. Barriers and Opportunities for Growth

7.1 What barriers do you see for the growth of organics?

In Manitoba, the most significant barriers to the growth of organics described by survey respondents were marketing difficulties, issues related to certification and regulation, and agronomic challenges.

Difficulty in finding and accessing markets was the most frequently mentioned barrier to the growth of organics. Respondents indicated that they "*can't sell what [they] need to use for proper crop rotations*", and some felt that they were "*poor sales people*". Other marketing-related issues included a lack of "*consumer awareness*" and "*consumer commitment*", and the "*breakdown in link between producer and end user*". Some respondents were concerned with the integrity of the organic label, because of large companies who "*try to mainstream organics*" and "*non-certified growers who want to call their products organic*". Competition with other natural, health-conscious products such as grass-fed beef, and "*consumer resistance*" because of high prices were also identified as barriers. The need for consumer education on "*the meaning of 'certified organic'*" was mentioned several times.

Certification and regulation issues were also mentioned frequently as barriers to the growth of organics. Some respondents expressed general frustration with certifying bodies while others identified more specifically the time spent on paperwork, the cost of certification, and "*trying to comply with ever-changing standards*" as major challenges.

Production-related issues were also described as a barrier by many respondents. Agronomic challenges included low yields, weeds, and the possibility of a disease outbreak. One respondent said, "*Once we get our production and weed control where we would feel good then we could put more emphasis on the other issues*". Others had concerns regarding costs of production and keeping price premiums high enough to cover costs. For some respondents, a lack of production-related knowledge was a challenge. Others felt that there was no one "*that could advise us on how to farm biologically*".

Some respondents also expressed concern about the small number of organic producers in the face of growing demand for organic products, noting the unwillingness of farmers to convert to organic because of the "*fear of low production*", as well as the declining number of family farms. Other barriers identified by survey respondents included a lack of suitable processing facilities and transportation systems, a lack of government support and funding, and the potential for strained relationships with neighbouring conventional farmers.

7.2 What opportunities do you see for the growth of organics?

The vast majority of survey respondents had a very hopeful outlook on the future of organics. Producers stated that the opportunities were "*wide open*", with "*a lot of potential in all areas of organics*".

Consumer demand for organic products was the opportunity for growth mentioned most often by survey respondents. As one person stated, "*consumer perception is what will drive our success*". Many noted growing demand in general, or for specific products including grains and oilseeds, meats, vegetables, fruit, dairy, hemp products and forage seed. Respondents also mentioned potential for growth both in overseas markets and within Canada.

Several societal trends were observed that drive the demand for organic products. Respondents noted consumer trends toward "*healthier products*" and "*holistic health*" as well as the perception that "*conventional food is making us sick*". Also mentioned was growing interest in environmental issues in general, with one person stating that "*environmental concerns automatically promote organics*." In addition, the "*eat local movement*" was credited as being an "*impetus*" for the growth of organics.

Opportunities for long-term environmental, economic, and community sustainability were also described by survey respondents. One producer observed that people are "*becoming more concerned about their food and health and local community health, growth and prosperity*" and another described "*growers and processors working together with educators to develop long term relations with each other and consumers*." Several mentioned the "*economic viability*" that organic production gives to farms, particularly small family farms. Others referred to organic production's role in long-term environmental sustainability, with its "*diversity*" and "*robust farming system*".

Other areas of opportunity mentioned were the potential for "*conventional producers [to be] able to incorporate some organic methods/products to reduce cost and harmful practices*", "*development of new crop varieties for specialty foods*", "*urban agriculture*", and getting "*organic products in mainstream diets through accessibility and affordability*". A few respondents felt that opportunities for growth were limited by current issues with certification and production standards.

8. Prairie Regional Concerns

Survey results across the prairies were generally similar. Field crop production dominated the organic sector in all three Prairie Provinces, followed by livestock production (primarily beef) and then horticultural crops. The proportion of respondents producing livestock was somewhat greater in Manitoba than in Saskatchewan and Alberta. Farm size was largest in Saskatchewan and smallest in Manitoba. The proportion of total acreage that was certified organic was highest in Alberta, where over 90% of organic producers' land was certified. Survey respondents from Alberta had more experience in organic farming and were older than respondents from Saskatchewan and Manitoba.

The priorities for production research were very similar. Respondents in all three Prairie Provinces ranked the same production research categories as the top 6. In Saskatchewan the top ranked category was *crop rotations*, in Manitoba it was *managing soil fertility and soil quality/health*, and in Alberta it was *animal health and nutrition*.

Weeds, soil fertility, and crop rotations were high priority crop production issues across the prairies and producers in all three provinces emphasized cultural approaches to weed, disease and insect management.

Livestock issues were generally ranked higher by Alberta producers than by Manitoba and Saskatchewan producers. The top animal-related issue was *parasites* in Manitoba and Saskatchewan, while the top issue in Alberta was *breeds*. Manitoba respondents ranked *grazing* higher than the other two provinces.

In each of the Prairie Provinces, producers were interested in food quality and environmental sustainability. They preferred research conducted on organic farms, using farm scale equipment. They wanted more consumer education on the benefits of organics. In each of the Prairie Provinces, fact sheets were the preferred approach to extension.

In terms of barriers, Saskatchewan respondents were more concerned with their social environment and identified poor infrastructure as a limitation to further marketing. In Manitoba, respondents identified marketing difficulties, issues related to certification and regulation, and agronomic challenges as key barriers. Alberta respondents emphasized concerns regarding the integrity of organic standards, the need for consumer education, and production costs.

Manitoba, Saskatchewan and Alberta share a healthy optimism for the future of the organic sector, driven by increased public awareness and consumer demand. They see opportunities both in export and in the local marketplace, as health and environmental concerns drive up consumer demand even further.

9. How do Manitoba results compare to the National Survey?

Many trends that emerged from the results of the Manitoba survey of organic farmers were also evident in national results. However, there were certain differences between Manitoba and Canada as a whole.

In Manitoba, a greater proportion of survey respondents produced field crops and livestock and a smaller proportion produced horticultural crops than the average across Canada. Average farm size in Manitoba was somewhat larger and more land was devoted to pasture and grazing than in other parts of Canada. The distribution of gross farm income was somewhat different than the national average: Manitoba results showed more farms in mid- to upper income categories whereas in the national results respondents were evenly distributed among income categories.

Respondents to the survey in Manitoba were somewhat older and were newer entrants to organic agriculture than in the rest of the country, although this trend was also evident in the national results. These statistics suggest that the organic sector in Manitoba may experience a very high rate of farm turnover in coming years, increasing the importance of farm mentorship programs and other programs to attract new organic producers.

Like organic farmers across Canada, soils and rotations were high priorities for Manitoba farmers, according to the lists of highest ranked organic research needs overall as well as rankings within subject areas for both reports. Weed related issues ranked higher in the overall Manitoba analysis than in the Canada-wide analysis. Plant disease and insect pest issues were ranked lower in Manitoba than across Canada.

Among livestock production issues, parasites were the highest rated concern in Manitoba as well as across Canada. Manitoba producers were more interested in grazing and diseases and less interested in breeds and feed than the national average.

Manitoba results for research on production economics, quality and nutrition of organic foods, and sustainability issues were generally very similar to national results. One exception was that Manitoba producers from all sectors ranked quality and nutrition of field crops higher than other products, while in national averages, each sector was more interested in the quality and nutrition of its own product group. There may be more interest in field crops in Manitoba since many livestock and horticultural crop producers also produce field crops.

Rankings on post-production needs (marketing and processing) in Manitoba were quite similar to those in national results, both emphasizing the need for consumer education on organics. Manitoba producers were more interested in *information on buyers/brokers* and *slaughter facilities for organic cattle* than the national average. The horticulture sector in

Manitoba gave substantially higher ratings to most processing issues and many marketing issues than the horticulture sector across Canada.

Fact sheets on organic practices topped the list of extension and technology transfer priorities both in Manitoba and across Canada. Rankings of other extension and technology transfer topics in Manitoba were generally quite similar to Canada-wide results, with a few exceptions: Manitoba respondents valued *conferences* and *extension personnel* more highly than the respondents from across Canada. While the ranking of *information by websites/email* was lower in Manitoba than across Canada, a higher proportion of Manitoba respondents indicated that they prefer to use the internet to access information.

Barriers to the growth of organics identified most frequently in Manitoba were quite different than those described by producers across Canada. While Manitoba producers struggled most with marketing difficulties, issues related to certification and regulation, and agronomic challenges, respondents from across Canada identified the lack of infrastructure and high production costs as the most significant barriers.

Producers from Manitoba and across Canada agreed that the most significant opportunity for the growth of organics is growing consumer demand for organic products.

10. Summary

Based on responses from approximately 15% of certified organic farmers in Manitoba, the organic production sector in this province is highly diversified, with healthy representations of field crop, livestock, and horticultural crop producers, often in a mixed farm model. The vast majority of respondents to the survey were relatively new entrants to organic agriculture and more than half were over the age of 50. Further analysis and verification of this trend is required as these demographics have considerable impact on the nature of organic operations new entrants are undertaking, and the turnover rate of producers. High turnover rates will place increasing pressure on mentorship and transition training programs to sustain our current organic production capacity.

Soils, crop rotations, and weeds were of high priority to the organic producers who responded to the Manitoba survey. High ratings for crop rotation research and other "whole system" research indicate that Manitoba organic producers are interested in long-term, integrated approaches to production issues rather than "quick fixes". Horticultural crop producers were more interested in plant disease issues and biological control methods than other sectors. Livestock producers prioritized parasite management and grazing systems for a wide variety of livestock species. Producers from all sectors were interested in various aspects of food quality and nutrition and environmental sustainability issues.

Consumer education on organic issues was considered very important by respondents to the survey. Producers also indicated a need for access to market information and processing facilities. Interest in research on production economics was lower than most other production and marketing issues.

Producers found extension bulletins (factsheets), conferences, and websites/email to be the most effective means of information transfer and expressed little interest in courses offered through colleges, universities, or distance education. Almost two-thirds of respondents indicated that the internet is one of their preferred methods of accessing information.

Survey respondents identified marketing difficulties, issues related to certification and regulation, and agronomic challenges as key barriers to the growth of organics in Manitoba. Most respondents had a very hopeful outlook on the opportunities for growth of organics, mentioning growing consumer demand, societal interest in health and environmental issues, and opportunities offered by organic systems for long-term environmental, economic, and community sustainability.

Appendix 1. Manitoba Organic Needs Assessment Survey

MANITOBA ORGANIC NEEDS ASSESSMENT SURVEY

The Organic Agriculture Centre of Canada (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 204-474-7528. If you have any questions, comments or concerns about this process, please contact Joanne Thiessen Martens at 474-6236 (1-800-432-1960 ext. 6236 in rural Manitoba), or by email at j_thiessen_martens@umanitoba.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.)

___ Cereals ___ Oilseeds ___ Pulses ___ Forages ___ Fruit

___ Vegetables ___ Herbs/Spices ___ Beef ___ Bison ___ Dairy

___ Swine ___ Sheep ___ Poultry Other: _____

Other: _____ Other: _____ Other: _____

A2. What organic products do you intend to produce in the near future? (Check all that apply.)

___ Cereals ___ Oilseeds ___ Pulses ___ Forages ___ Fruit

___ Vegetables ___ Herbs/Spices ___ Beef ___ Bison ___ Dairy

___ Swine ___ Dairy ___ Poultry Other: _____

Other: _____ Other: _____ Other: _____

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 (1 is most important and 5 is least important).
- ✓ 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.

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

NB: For data analysis, the ratings of 1-5 were reversed (i.e. 1 was least important and 5 was most important).

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

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

What other soil research would you like to see? _____

_____

_____

B2. Managing weeds	1	2	3	4	5
Mechanical (tillage) controls	1	2	3	4	5
Biological controls (natural and introduced diseases and predators of weeds)	1	2	3	4	5
Cultural controls (seeding rates, varieties, cropping management)	1	2	3	4	5
Rotations (green manures, crop order)	1	2	3	4	5
Organic herbicides	1	2	3	4	5
Other (specify_____)	1	2	3	4	5
Designing weed control programs to manage specific weeds					
Canada thistle	1	2	3	4	5
Wild mustard	1	2	3	4	5
Other (specify_____)	1	2	3	4	5

What other weeds research would you like to see? _____

_____

	Very Important				Less Important
B3. Managing crop insect pests	1	2	3	4	5
Enhancing natural controls (e.g. encouraging grasshopper predators)	1	2	3	4	5
Cultural controls (crop rotations, intercrops, crop management)	1	2	3	4	5
Biological controls (e.g. releasing insect diseases or predators)	1	2	3	4	5

What other insect research would you like to see? _____

_____

_____

B4. Managing crop diseases	1	2	3	4	5
Enhancing natural controls (e.g. encouraging beneficial bacteria)	1	2	3	4	5
Cultural controls (crop rotations, intercrops, crop management)	1	2	3	4	5

What other disease research would you like to see? _____

_____

_____

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

What other crop rotation research would you like to see? _____

_____

_____

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

Which crops would you target for this research? _____

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

_____

_____

B7. Specialized equipment for organic production systems	1	2	3	4	5

..... What types of equipment would you like to see researched (e.g. weed clippers, chaff collectors,

crimper/rollers, etc.)? _____

_____

_____

Do you raise livestock? If not, please go on to Section C. …… Yes No

Very Important — Less Important

B8. Animal health, nutrition and welfare 1 2 3 4 5

(For the questions below, please specify the animals (beef, dairy, sheep, etc.) in which you are interested)

Breeds (specify animal: _____)..... 1 2 3 4 5

Parasites (specify animal :_____)..... 1 2 3 4 5

Diseases (specify animal :_____)..... 1 2 3 4 5

Grazing (specify animal: _____) 1 2 3 4 5

Feed (specify animal: _____) 1 2 3 4 5

Handling (specify animal :_____) 1 2 3 4 5

Housing (specify animal :_____) 1 2 3 4 5

Manure Management (specify animal :_____) 1 2 3 4 5

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) 1 2 3 4 5

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

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

_____

_____

Value added research 1 2 3 4 5

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

_____

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

Please specify which crops:_____

Animal products	1	2	3	4	5

....Please specify which animal products:_____

Horticultural crops	1	2	3	4	5

Please specify which crops:_____

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

_____

_____

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

What other sustainability research would you like to see? _____

_____

_____

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

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

Additional comments? _____ _____

_____

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

	Very Important				Less Important
E1. Information on commodity prices and volumes	1	2	3	4	5
E2. Information on buyers/brokers	1	2	3	4	5
E3. Information on market trends and demands	1	2	3	4	5
E4. Assistance in developing value added products	1	2	3	4	5
E5. Processing facilities for organic field crops	1	2	3	4	5
E6. Processing facilities for organic fruits and vegetables	1	2	3	4	5
E7. Slaughter facilities for organic cattle	1	2	3	4	5
E8. Mobile slaughter facilities for other organic livestock	1	2	3	4	5
E9. Buy local campaign	1	2	3	4	5
E10. Manitoba Organic logo	1	2	3	4	5
E11. Local procurement for institutional buyers	1	2	3	4	5
E12. Buyer/seller matchmaking services	1	2	3	4	5
E13. Consumer education on organic standard	1	2	3	4	5
E14. Consumer education on organic benefits	1	2	3	4	5

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?	1	2	3	4	5
Extension courses on advanced specific aspects of organic production	1	2	3	4	5
Fact sheets on organic farming practices	1	2	3	4	5
Information on economics of organic production	1	2	3	4	5
Organic information available on websites or by email	1	2	3	4	5
Extension personnel to facilitate specialty producer meetings	1	2	3	4	5
Organic Farm Mentorship programs (experienced organic farmers)	1	2	3	4	5
Field tours of organic production	1	2	3	4	5
Conferences such as “Organic Connections” or “Organic Matters”	1	2	3	4	5
Regional workshops	1	2	3	4	5
Organic Agriculture program offered through distance education at the University of Manitoba	1	2	3	4	5
Organic Agriculture program at a regional college	1	2	3	4	5
Degree/diploma courses in Organic Agriculture at the University of Manitoba	1	2	3	4	5

How do you prefer to access information? (e.g. books, internet, phone, factsheets, etc.)

_____

_____

What specific information would you like to see (e.g. soil test fact sheet, nutrient planning, buyers’ preferences, etc.)? _____

_____

SECTION G: Barriers and Opportunities for Growth

What barriers do you see for the growth of organics? _____

_____

_____

What opportunities do you see for the growth of organics? _____

_____

_____

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. How many years have you been an organic producer?

___ < 5 years ___ 5 – 10 years ___ 11 – 15 years ___ 16 – 20 years ___ 21+ years

H5. What is your age? ___< 30 ___30 - 39 ___40 - 49 ___50 - 59 ___60 - 69 ___70+

H6. What is your gender? ____male ____female

H7. What is your RM? _____

H8. What is your soil type? ____ black ____ dark grey ____ grey

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.