

***Moving Towards the Local: The
Barriers and Opportunities for
Localizing Food Systems in Canada***

by

Candace L. Wormsbecker

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Environmental Studies
in
Environment and Resource Studies

Waterloo, Ontario, Canada, 2007

©2007 Candace L. Wormsbecker

AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Signature

Abstract

Increasing globalization of the food system has led to a loss of food sovereignty and security in communities throughout the world. This globalized system has adopted industrial techniques of standardization and specialization as the solution to producing an abundant cheap food supply. Over time this system has become concentrated in the hands of a few transnational corporations that increasingly control every step of production from farm inputs, to distributing and processing. As a result, we have experienced the emergence of a counter movement to the corporate controlled and globally sourced dominant food system we have today. The rise of local food systems in industrialized countries developed to help solve the issues created by the current food system.

This study provides insight into the barriers and opportunities to the development of local food systems, as well as the universality of these barriers. To achieve this, a multi-case study was conducted in Nelson, British Columbia; Lethbridge, Alberta; and Waterloo, Ontario. In each of these locations information was consolidated from food 'experts' or key informants, consumers, farmers, and supermarket owners/managers. Research methods included semi-structured interviews, a consumer survey, interpretation of government documents, and study site observation.

Results from this study add to the empirical work on local food systems in Canada and offer a multi-stakeholder perspective of the barriers and opportunities to localization efforts. Findings suggest that the barriers to the development of local food systems are largely universal and are supportive of other empirical and theoretical works. Barriers included issues such as federal agricultural policy, health and safety regulations, consolidation of food retailing, and a demand for cheap food. The opportunities for a local food system, although more diverse and different between regions, can all for the most part be universally applied. While many opportunities exist for municipalities to enhance local food in their region, barriers created by government and industry will ultimately limit any notable movement toward a more localized food system without more significant policy changes from above. This study supports the idea that local food systems will require government assistance in order for changes from the grassroots to make significant strides in becoming less dependent on food imports.

Acknowledgements

This thesis is the work not only of myself but also of the many people who took the time to participate in this study.

Thanks to the following participants:

- all the farmers who took time out of their busy harvest season to speak with me,
- all the key informants for not only taking the time to do the interviews but assistance in connecting with farmers and others in their community involved in the food system
- all the consumers and supermarket owners for taking time out of their busy days to assist me with this work

I would also like to thank:

- my supervisor, Jennifer Clapp, for her feedback and guidance along the way, as well as for unexpectedly taking me on as a student!
- Steffanie Scott for being my committee member but including me more as a student of her own! Also for holding in her baby another week so I could defend;))
- Mary Louise McAllister for taking me on as her student in the beginning and also providing guidance in developing the proposal for this work.
- Ian Wormsbecker for listening to my concerns and providing me assistance and reassurance along the way!

Table of Contents

AUTHOR'S DECLARATION	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	viii
List of Figures	ix
Chapter 1 Introduction.....	1
1.1. Background – A Food System in Crisis?	2
1.2 Contribution of Study	4
1.3 Outline of Thesis Chapters.....	5
Chapter 2 Methodology.....	7
2.1 Interviews.....	7
2.1.1 <i>Key Informant Interviews</i>	7
2.1.2 <i>Farmer Interviews</i>	8
2.1.3 <i>Supermarket Interviews</i>	9
2.2 Consumer Survey	10
2.3 Primary Literature Review	11
2.4 Site Observation	11
2.5 Chapter Summary.....	11
Chapter 3 Literature Review.....	12
3.1 Alternative Food Systems – The On-Going Debate	13
3.2 Why the local works: Localism as a Theory	14
3.4 Definitions of Localism	17
3.5 Previous Work.....	18
3.6 How to make it work	19
3.7 Chapter Summary.....	21
Chapter 4 Case Studies.....	23
4.1 Waterloo.....	23
5.5.5 <i>Agri-Food System</i>	23
4.1.2 <i>Farming Ethos/Philosophy</i>	25
4.1.3 <i>Local Food Initiatives</i>	25

4.1.4	<i>Waterloo Definition of Local</i>	26
4.1.5	<i>Waterloo Summary</i>	27
4.2	Lethbridge	28
4.2.1	<i>Agri-Food System</i>	28
4.2.2	<i>Farming Ethos/Philosophy</i>	30
4.2.3	<i>Local Food Initiatives</i>	30
4.2.4	<i>Lethbridge Definition of Local Food</i>	31
4.2.5	<i>Lethbridge Summary</i>	32
4.3	Nelson.....	32
4.3.1	<i>Agri-Food System</i>	33
4.3.2	<i>Farming Ethos/Philosophy</i>	35
4.3.3	<i>Local Food Initiatives</i>	35
4.3.4	<i>Nelson Definition of Local</i>	36
4.3.5	<i>Nelson's Summary</i>	37
4.4	Regional Comparison	38
Chapter 5	Barriers to Local Food System Development	40
5.1	Consumer Barriers.....	41
5.1.1	<i>Consumer Awareness/Education</i>	41
5.1.2	<i>Convenience</i>	42
5.1.3	<i>Demand for Inexpensive Food/Low Food Prices</i>	43
5.1.5	<i>Older Demographics Supporting Local</i>	45
5.2	Policy, Regulations, and Corporations.....	45
5.2.1	<i>Land Use Policy</i>	46
5.2.2	<i>Health and Safety Regulations</i>	46
5.2.3	<i>Federal/Provincial Agricultural Policy Not Conducive to Small-Scale Agriculture</i> ..	48
5.2.4	<i>International Trade Obligations</i>	48
5.2.5	<i>Transnational Corporate Influence</i>	50
5.3	Infrastructure – Processing Infrastructure.....	50
5.3.1	<i>Processing Infrastructure</i>	51
5.3.2	<i>Provincially Inspected Abattoirs</i>	52
5.4	Retail.....	53
5.4.1	<i>Consolidation of Food Retailing</i>	53
5.4.2	<i>Cost Competitiveness in Retail & Accountability of Institutions</i>	55
5.4.3	<i>Storage and Delivery of Product for Small Stores</i>	56

5.5 Farmer and Agricultural Capacity Barriers.....	56
5.5.1 Oversupply of Agricultural Commodities.....	57
5.5.2 Competitive Farming Community.....	58
5.5.3 Limited Local Farmers/Land.....	59
5.5.4 Time/Knowledge Required for Direct Marketing.....	60
5.5.5 Unstable Pay at Farmers' Markets.....	60
5.5.6 Lack of Certified Farmers' Markets.....	61
5.5.7 Falling Farm Incomes and the Rising Cost of Land.....	62
5.5.8 Risk Aversion of Farmers.....	62
1.2 Chapter Summary.....	63
Chapter 6 Opportunities to Local Food System Development.....	65
6.1 Education/Awareness.....	66
6.2 Agriculture Capacity.....	69
6.3 Infrastructure.....	72
6.4 Government & Community Support/Involvement.....	73
6.5 Local Markets.....	76
6.6 Culture.....	79
6.7 Consumer & Societal Trends.....	81
6.8 Chapter Summary.....	83
Chapter 7 Conclusions.....	85
7.1 Recommendations for Future Research.....	92
Appendix A Community Statistics.....	94
Appendix B Breakdown of Key Informant Interviews.....	98
Appendix C.....	99
Breakdown of Farmer Participants.....	99
Appendix D Consumer Survey Results.....	101
Appendix E Key Informant Interview Question.....	114
Appendix F Farmer Interview Questions.....	115
Appendix G Supermarket Owners/Managers Interview Questions.....	116

List of Tables

Table 1. A summary of the consumer-related barriers.....	41
Table 2. A summary of the political, regulatory, and corporate barriers noted in this study.....	45
Table 3. A summary of the infrastructure barriers noted in this study.....	51
Table 4. A summary of the retail-related barriers noted in this study.....	53
Table 5. A summary of the farmer and agricultural capacity barriers noted in this study.....	56
Table 6. Educational opportunities to the development of a more local food system.....	66
Table 7. Agricultural opportunities to the development of a more local food system.....	69
Table 8. Infrastructural opportunities to the development of a more local food system.....	72
Table 9. Opportunities with government and community involvement to the development of a more local food system.....	73
Table 10. Opportunities around local markets in the development of a more local food system.....	76
Table 11. Cultural opportunities to the development of a more local food system.....	79
Table 12. Consumer and Societal trends that may facilitate the development of a more local food system.....	81

List of Figures

Figure 1. Map depicting the location of the Region of Waterloo.....	24
Figure 2. Map depicting the location of the County of Lethbridge.....	29
Figure 3. Map depicting the location of the Regional District of the Central Kootenays.....	34

Chapter 1

Introduction

Globalization in addition to increasing corporate control of the food system has created a loss of food sovereignty¹ and has threatened food security globally. It has done this through encouraging countries to specialize in certain commodities for export and in turn increase their reliance on other countries for their food supply. As a result, we are seeing a growing number of movements for local agriculture across Europe and North America in the face of a globalized corporately controlled food system. But while movements grow, it is not clear whether the theories with respect to food localism are reflective of real life conditions. As well, limited empirical research exists to determine the challenges to moving toward a more localized food system², especially as applied to the Canadian context. This thesis seeks to fill these voids by using empirical research to determine the barriers and opportunities to developing more localized food systems in Canada. I argue that many of the barriers and opportunities are universal in scope, being applicable to communities throughout Canada. The barriers tend to be universal since many exist outside the realm of control of the community itself, to extend into national and international trade and agricultural policy. However, for barriers specific to a community, what may be a barrier for one community may be an opportunity for another. The opportunities for communities to localize their food system, on the other hand, are limited in the absence of larger policy and regulatory changes from higher levels of government. Despite this, some actions can be taken at the local level to begin the localization process. A local food system however, can only really go so far without changes from above.

The goal of this study is to provide insight into how to make local foods more prevalent in Canadian communities. Its objective is to determine the potential for local food systems to preserve local agriculture and facilitate more sustainable, healthy, and equitable food systems in Canada. It will do this by bridging the link between consumers, producers, local government, and

¹ Food sovereignty is "the right of peoples, communities, and countries to define their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances (Food First, 2002)". Food sovereignty includes the right to food and to produce food, so that all people have access to safe, nutritious and culturally appropriate food and to food-producing resources.

² A food system consists of the interdependent parts that provide food to a community. Parts of the system include the growing, storing, transporting, processing, packaging, marketing, retailing, and consuming of the product.

retailers to help develop an understanding of each other's needs and limitations. It does this through addressing the following research questions:

1. What are the barriers and opportunities to the development of localized food systems in Canada?
2. Are these barriers and opportunities internal or external to the community's control?; and
3. How universal these barriers/opportunities are to Canadian municipalities?

To achieve the above goals, a multi-case study design was conducted in three culturally, geographically, demographically, and politically distinct regions of Canada: Nelson, British Columbia; Lethbridge, Alberta; and Waterloo, Ontario. In each location, information was consolidated from key informants, consumers, farmers, and supermarket owners/managers, to gain an understanding of the current situation, potential, and interest in developing more localized food systems. Research methods included a survey of consumers, interviews with key informants, farmers, and supermarket owner/managers, a review of local literature, and study site observation for each locale.

This research pulls its insights from academic literature on localization, agrifood studies, and sustainable agriculture. It attempts to fill a gap in the literature by identifying the key barriers and opportunities to the development of localized food systems in the Canadian context. This is also one of few studies that uses empirical case study research to increase understanding of the challenges to more localized food system development.

1.1. Background – A Food System in Crisis?

Increasingly, Canada is relying on other countries for a greater share of its food supply. Although, Canada produces excess grains, oils, meats, and dairy, it produces only 19% of fruit and 67% of vegetables consumed domestically (Riches et al, 2004)³. With a globalized food chain, produce that used to be grown locally is being replaced by cheaper imports from other nations (Kneen, 1995). As a result, in order to compete, farmers are forced to adopt ever more industrial models of specialization and mass production in order to cover the rising cost of inputs (Lyson, 2004) and compete with cheap agricultural labour overseas. This situation has severely limited the diversity of crops grown, and altered the scale of production required to make ends

³ Excluding potatoes.

meet (Lapping, 2004)⁴. It has also drastically increased the distance our food travels from field to plate⁵.

This globalized food system has threatened rural livelihoods by cheap imports undercutting local farmers and by placing increased control over the food system in the hands of a few corporations in the food chain⁶. The proliferation of cheap food fails to pay farmers a fair price for what they grow, distorts local markets by flooding them with unhealthy subsidized raw materials for processing (contributing to the obesity epidemic), and encourages environmental degradation through the proliferation of a few high-input commodities⁷.

As a result of cheap food policies, new generations of farmers have been deterred from staying on the farm or entering into farming. This is illustrated by the fact that in the 2001 Census of Agriculture the number of farms in Canada went down 10.7% from 1996 (Statistics Canada, 2002). Moreover, the growth of large urban populations serviced by supermarkets, fast food outlets, and convenience stores, has largely disconnected the socio-economic links between rural and urban populations, abstracting commodities from their human and natural roots (Raynolds, 2000).

Additionally, the reliance on off-season crops from other countries also has environmental and social impacts (Friedmann, 1994; Lappe, 1998). This practice displaces local farmers from more fertile lands and takes land out of production for local markets. As subsistence farms are lost to export producers, local food security is jeopardized for the purpose of cash cropping for vulnerable export markets (Hines, 2000).

Dependence on imports is also risky for the importer of foodstuffs. During food shortages exporting countries may decide to feed their domestic market first, cutting exports. A lack of farmers, available land, and local knowledge in Canada could then generate food security

⁴ This is illustrated by the fact that farm land has gone up 4.2% between 1996 and 2001 yet the number of farmers has gone down (Statistics Canada, 2002).

⁵ For example, a recent study by the Region of Waterloo Public Health Department revealed that imports of commonly eaten foods in the Waterloo Region travel an average of 4,497 km (2005b).

⁶ Corporate consolidation of agro input sectors and of processors has left farmers being relegated to price-takers as opposed to price-setters.

⁷ The US Farm Bill helps dictate prices for corn, soy beans, and wheat around the world through policies that encourage overproduction of these commodities, and enables them to be sold on the market for cheaper than the cost of production (Pollen, 2007).

concerns. Finding ways to increase consumption of local foods is therefore an important first step toward a more sustainable and food-secure future.

Local agriculture offers a multitude of social, environmental, and economic benefits to counteract some of the pitfalls of the predominant agrifood system (Pelletier et al, 1999; Gale, 1997). Social benefits include: connecting rural and urban communities; creating healthier diets; reinvigorating rural communities; and preserving rural heritage. Environmental benefits include encouraging crop diversification; reducing ‘food miles’; maintaining watersheds; and preserving farmland. Economic benefits are accrued by more of the food dollar staying in the local economy. This can result in job creation, farm profitability, enterprise development, and a cheaper source of food for consumers.

Despite the benefits of local food systems, there is a lack of understanding as to what the barriers and opportunities may be to the development of more localized food systems in Canada. Information is also needed to help understand the universality of these barriers and opportunities. Providing an understanding of the challenges and prospects communities face will help focus their actions and, ideally, make local foods more prevalent in Canadian communities.

1.2 Contribution of Study

This study proposes that there are different levels of barriers and opportunities, those at the community level and those at the federal and international level. The findings of this study will show that a significant proportion of the barriers are the result of policies and regulations at these higher levels and are universal within Canada, being shared with other regions in the country. Other universal barriers may be able to be overcome at the local level with consumer education and farmer innovation. The community-specific barriers, however, mostly reside within the control of the community, and although some can be overcome with local policy, geographical barriers are insurmountable. In the case of geographical barriers this will therefore require a broadening of the definition of local. These results will help illustrate why a local food system can only really go so far without changes from above and in some cases a reflexive definition of local (especially where geographical barriers exist). This study will also show that even though the specific opportunities to developing a more localized food system differ between regions, they are by and large universal in terms of their potential applicability.

In defining 'local' in the context of developing a more localized food system, this research will show that there were no definitive trends in any of the case studies as to the precise meaning of 'local'. Overall, the definitions of local were very broad and wide-ranging and included concepts such as:

- geographical distances, eg. 100 miles;
- regional/jurisdictional definitions, eg. the Kootenays, Southern Alberta;
- what can be grown where (consuming as close to home as possible);
- connection to the farmer or number of players in food chain; and,
- ecological regions.

The information gathered from the various sources for the three case studies suggests that all three regions are at different stages of local food system development with different consumer audiences. Next steps that key informants deemed important for their community were also very different between communities. For example, a local initiative to engage the stakeholders to move on a local food policy was noted as an important next step in Nelson, whereas in Waterloo the stakeholders have already been brought together and moving forward on the recommendations of the stakeholders is their next step. In Lethbridge, building community awareness and continuing the fight for legitimate government support is where they see their next steps.

The conclusion of this study has revealed that while it is important to continue to push for changes to agricultural policy to overcome some of these larger barriers, educational campaigns among the public about the current crisis of our food system also have to occur in order to establish a market for local products.

Moving toward a local food system will likely be a step-by-step process whereby demand will grow and more farmers will come on board or vice versa. It is very unlikely that large changes will occur overnight.

1.3 Outline of Thesis Chapters

This thesis is broken down into the following chapters themes: methods, literature review, case study background, barriers, opportunities, and conclusions.

Chapter two summarizes the methods used to answer the research questions. A description of the key informant, supermarket, and farmer interviews, as well as the consumer survey is included. Study site observations and literature analysis was also used in addressing the research questions, and is outlined here as well.

Chapter three constitutes a broad overview of the literature on alternative food systems, indicators of sustainable development and local autonomy, defensive localism & democracy, as well as proposed ideas of how to make local food systems work.

Chapter four provides an overview of the case study sites chosen for the study. This will include information on the geography, definitions of local, agrifood system, farming ethos, and local food initiatives in each of the region.

Chapters five and six summarize the barriers and opportunities that were noted in the development of a more localized food system as linked to the case studies. These barriers and opportunities will be broken down into issues deemed to be universal to Canadian municipalities versus those deemed to be community specific. The barriers will also be looked at as to where control in resolving the issue lies.

Chapter seven provide concluding thoughts on what communities can do to move forward in strengthening their local food system. It will highlight the scholarly contributions of this study, in addition to providing general recommendations for what needs to happen at both the local and global level to make a local food system a reality.

Chapter 2

Methodology

To answer the research questions of this study, qualitative research using a multi-case study design was conducted in three culturally, geographically, demographically, and politically distinct regions of Canada. These regions included: Nelson, British Columbia, Lethbridge, Alberta, and Waterloo, Ontario. The diversity between these regions was believed to be suitable to determine the factors that facilitate or limit the development of more localized food systems by permitting the commonalities of these factors to be explored.

Triangulation was achieved by using a number of sources/means to validate the findings of this study. Research methods included interviews, a survey, interpretation of primary government documents, and study site observation. Interviews were conducted with personnel in government agencies, farmers' organizations, supermarkets, and farmers themselves. A consumer survey was also conducted to understand the public's interest in more localized food systems. Primary documents provided on research sites, along with observations made from site visits also supplemented information gathered from the interviews and survey. Because people in Canada purchase most, if not all, of the food they consume, this study only investigated initiatives that involve growing food for sale⁸⁹.

The following section will provide an overview of the methods used to answer the research questions posed in Chapter 1. Due to the complexity of the research topic and questions, it was important to use a number of different methods, not only to develop a stronger case study, but also to develop a more insightful overview of the situation in each of the case study locations.

2.1 Interviews

2.1.1 Key Informant Interviews

The role of the key informant interviews was to corroborate and help explain the research findings of the survey, as well to supplement the farmer and supermarket interviews. In addition,

⁸ As opposed to food for self-consumption.

⁹ Over 90% of the Canadian population depends almost entirely on food for purchase, secures food in kind through charity, or participates in a barter economy for their food security (Riches et al., 2004).

their role was to provide a higher level of insight into local policy/regulations that would influence the development of a more localized food system in Canada.

Key informant interviewees consisted of community leaders at the grassroots and government level that work to some degree on current or planned local food initiatives in their region. Five key informants from each case study representing these different interests were interviewed within this group¹⁰. The key informants represented a diversity of interests/perspectives from government, farming organizations, to grassroots organizations¹¹. This was important so that different points of view in the community were all heard, and a broad understanding of the dynamics within the community could be developed.

These interviews were semi-structured drawing on a list of questions to guide the discussion, though exact questions asked were ad hoc and depended on the interest of the individual, or the kinds of information about which they were most knowledgeable. These questions centered on the theme of the challenges and opportunities existing within their region to localizing the food system. The semi-structured approach allowed flexibility in getting the most information from each of the participants, and allowed them the chance to determine for themselves which topics were most important to cover in the interview.

These interviewees also provided references to paper documentation related to their community's food system.

Results from these interviews were compared between both the different interviewees and the different case studies. As well, comparisons and contrasts were also made between farmer interviews, consumer surveys, and local primary literature to spot trends and/or discrepancies between the various sources used to build this study.

2.1.2 Farmer Interviews

The sample of farmers interviewed represented a mixture of conventional and organic producers that are growing for the local marketplace. Some of these farmers were growing completely for the local market, while for some, supplying the local market was only part of their overall operation.

¹⁰ These individuals were selected using the snowball method of referrals, once initial contact was made with a primary source in the community.

¹¹ However the exact mix of interviewees varied with each case study.

Interviews were chosen for this component of the study, as it was believed that farmers would be more responsive in the interview interaction than in a more structured survey format. Also, because more detailed information was needed regarding local production practices, this merited the use of interviews over surveys.

The farmers interviewed were selected using the snowball technique, upon referral from community leaders, government officials, or other farmers, and by visits made to the farmers' markets. Nine farmers in each case study location were selected using this technique for an interview.

Like the key informant interviews questions were geared toward gaining a better understanding of the obstacles and growth potential for a local food system in their region. These interviews took place at the farmer's farms, over the phone, and at the farmers' market depending on the availability and accessibility of the farmer.

The results from these interviews aided in determining what farmers felt were the main issues and requirements for a strong local food system in their region. This information was compared with farmers' responses at the different study sites, with the literature, as well as with the results from the key informant interviews.

2.1.3 Supermarket Interviews

Supermarket managers/owners were also interviewed as a part of this research, since supermarkets would likely be a key player in a more localized food system. Because the majority of food purchases in Canada are made in larger grocery outlets, it is important to understand the feasibility of getting food retailers on board with sourcing locally grown products.

In each of the case study sites, managers/owners of three grocery stores were interviewed. The sample included one larger chain, one mid-sized independent store, and a smaller and/or health food store¹². By including a range of store sizes and ownership types it was believed that this would provide some insight as to the interest in selling locally grown foods, as well as the barriers and opportunities each foresees to selling local products from a variety of perspectives. Results were compared between store types both within and between case study locations.

¹² All were alternative health/organic focused stores except in Lethbridge where none existed.

2.2 Consumer Survey

Since local food initiatives require consumer buy-in, it is important to understand consumers' perspectives on local food. The purpose of the survey was to solicit information about food consumers in the region¹³. It assessed their attitudes and perceptions about the agricultural sector, current buying patterns, importance of buying local, and willingness to purchase and pay more for local foods.

The consumers surveyed for this study represented community residents that purchase their own food for consumption. Thirty face-to-face consumer surveys at each study site were conducted to represent a range of food purchasers in the community¹⁴. Surveys were administered in the main municipality of interest (i.e. Nelson, Lethbridge, and Kitchener-Waterloo) since this is the most populous centre in each of their respective regions and represent the major market for local produce in their region¹⁵.

A survey was selected for this aspect of the study, as it was a good way to gather a great deal of data quickly from a diversity of residents in a short amount of time (Palys, 1997). Specifically, a face-to-face survey was selected as these types of surveys have high participation rates (80-90%), allow for questions to clarify ambiguities if they arise, and ensure completion of all questions of the survey (Palys, 1997). It is therefore felt that face-to-face surveys were the most appropriate for obtaining information from this component of the population¹⁶.

The data obtained from the surveys were entered into a spreadsheet to compare between survey locations and between case study locations. Responses were analyzed for each region as well as between regions, to determine the overall patterns as well as regional differences that exist between study sites.

¹³ The survey was used solely as a qualitative indicator of the local culture and therefore survey answers were not tested for statistical significance.

¹⁴ Ten respondents were selected on a downtown street, ten at a farmers' market, and ten outside a grocery store to acquire information from a diversity of consumers in the municipality. All respondents were from the given region and purchase their own food for consumption.

¹⁵ This also minimized sampling time required

¹⁶ The survey was pre-tested by carrying a mini-trial at the UW campus to ensure the accuracy and validity of the survey questions. Issues encountered in this sample were rectified in the survey before it was administered in the three municipalities.

2.3 Primary Literature Review

Primary literature in the form of reports, business plans, and feasibility studies were also gathered from sources provided by local key informants, conferences attended on local foods, conversations with local food experts outside of the case study locations, as well as academic papers on the subject of local foods. This data was used to validate and provide more information on topics that were touched upon in conducting the fieldwork for this study.

2.4 Site Observation

Results from this study also relied to a certain degree on observations of the community that were made while collecting of the primary information. These observations included dynamics of the community, types of stores in the community (i.e. large block stores vs. local cooperatives), demographics and types of stalls at farmers' markets, visits to local retail outlets, as well as informal conversations with residents in the community. These findings helped clarify and corroborate findings from interviews, as well as helped to determine the situation of, and attitude toward, the current food system.

2.5 Chapter Summary

Together the above outlined methods provided a means of triangulating information between sources to provide an assurance of validity for the data gathered. This methodology provided for a detailed overview of each of the case studies being examined, as well as enabled comparisons to be made between them. Due to the use of a multi-case study approach, however, the comprehensiveness of the information was reduced for the benefit of increased generalizability.

The following chapter will outline the current state of the literature regarding food localization, including: the current debate over food system localization, the dynamics of local food system development, and what food system localization may look like. It will also identify the gaps in the literature this study is attempting to fill.

Chapter 3

Literature Review

The literature on local food systems has moved from solely focusing on production, to also include food distribution, security, and democracy. This literature covers issues including: rural economic development, defensive localism, sustainability, and 'quality' food production. Debates over the role played by political, social, and environmental motivators in this movement are central to the literature on local food systems. Specifically, the ability of localized food systems to fend off defensiveness, as well as their reliance on quality to enact change, in particular, are seen as weaknesses in leading to long-term change in the current agrifood system.

Although some studies have involved actual case studies, surveys, and interviews, the majority of the information on food localism has been centered around a philosophical debate between the different disciplines and perspectives on the scope and potential precautions of food localism. Most of the literature on alternative agrifood systems assumes that food localism is an essential component to the movement because it attends to some of the larger issues in the food system that sustainable production methods alone fail to address (Allen, 2004; Koc & Dahlberg, 1999; Lapping, 2004; Lyson, 2004; Watts et al, 2005).

It has been suggested that within the alternative agrifood movement there are really two separate but equally important movements – sustainable agriculture and community food security (Allen, 2004; Bellows & Hamm, 2001; Koc & Dahlberg, 1999). Sustainable agriculture focuses on the production aspect of the food system; growing food in an environmentally and economically sustainable manner. The community food security movement, on the other hand, focuses on the distribution and consumption of food, particularly around food access and nutrition. Local food attempts to bring these movements together through its focus not only on sustainable production but also the distribution of food. Those in favour of local food systems argue that they strengthen local markets for farmers and processors, create local jobs, reduce environmental degradation, preserve family farms and farmland through rural economic development, further public participation in the food system, facilitate the building of relationships within the community, and fend off corporate cooption (Feenstra, 1997; Henderson, 1998; Lyson, 2004; Kloppenburg et al., 1996; Wilkins, 2005). Local food systems then are believed to address many of the potential risks of both the sustainable agriculture and community food security movements.

To understand the potential role of localism in addressing the sustainability of food systems, this chapter highlights the theory of localization, definitions of localism, previous work on local food system development, the factors believed to contribute to strong local food systems, as well as remaining gaps in the literature. Together, the debate over the motivations for localization, in addition to the measures required for a successful local food system, provide insight into what Canadian communities may require to move toward more localized food systems.

3.1 Alternative Food Systems – The On-Going Debate

The debate over *sustainable* alternative food systems, to some, is an issue solely of food production and protection of small family farms (Lapping, 2004; Lyson, 2004). However to others, this issue is a much bigger problem of not only agricultural production but also one of food distribution, security, and democracy (Allen, 2004; Bellows & Hamm, 2001; Koc & Dahlberg, 1999). The sustainability aspect of local food networks versus 'sustainable' food production systems is key to this debate.

Some studies contradict the environmental benefits of food localism. Bellows and Hamm for instance, state the danger of assuming that the local is the best environmental option (2001). They bring to light the fact that a local food chain does not prevent agriculture from relying heavily on monocultures, pesticides, synthetic fertilizers, and non-renewable resources, which are hazardous to the environment.

On the other hand, the focus of the sustainable agriculture movement tends to be on sustainable production methods, as well as in creating a 'moral economy' or 'ethics of care' (DuPuis, & Goodman, 2005; Goodman, 2004). Others such as Allen (2004) and Watts et al (2005) criticize the sustainable agriculture movement, saying that it relies too heavily on traditional corporately-controlled market systems and therefore is susceptible to having its vision subsumed into corporate agendas. Companies can use an 'ethical' label (i.e. organic or fair trade) to improve their image even though they are doing little to move toward sustainability.

It has also been said by some that the sustainable agriculture movement focuses too much on the environmental and economic components of agricultural production without paying due diligence to the social aspects of food issues within the movement (Allen, 2004; Reynolds, 2000).

Raynolds (2000) believes it is essential that equitable social relations are re-embedded into trade and production if we really want to change the current system.

This debate goes on to question whether alternatives (including food localization) are enough to cause actual change in the context of the larger system (Allen, 2004; DeLind, 2002; Koc & Dahlberg, 1999). Allen (2004) feels that simply posing alternatives to the current system while working within its larger framework fails to address the deeper social changes that are required to prevent issues such as food insecurity from happening in the first place. While alternatives offer solutions for short-term change, opposition to the higher-level institutions and policy that create the problems alternatives are trying to solve also needs to be pursued. Challenging production methods, as well as higher level institutions and policies, are both essential to enacting change and creating a strong alternative agrifood system.

Local food systems and sustainable production systems therefore can both have potential problems if implemented without the larger picture in mind. However, by focusing on sustainable production methods alone, concerns over food miles, industrial monocultures, corporate control, and equitable access to markets still exist (Pollen, 2006).

As a result, it is believed that 'sustainable' production systems are not going to work on their own; they need to be combined with the local to have a truly 'sustainable' food system (Allen, 2004). Local food movements argue that it is only by combining the two that all the issues of sustainability, the social, environmental, and economic can be addressed (Allen, 2004).

3.2 Why the local works: Localism as a Theory

Globalization is problematic because it ends up pitting country against country and worker against worker in the global competition for markets (Hines, 2000). The paramount necessity to be internationally competitive in today's system inevitably sacrifices adequate local environmental production measures. This is illustrated by the fact that conditions in export dependent countries have actually worsened, not improved, with globalization. With policy to support efforts, localization could put an end to imports undercutting domestic production if such goods can be produced domestically. The result of this would be the chance for improvement of workers' conditions everywhere to increase.

Localization efforts are not only perceived to be a solution to globalization in the Global North but also in the Global South. Currently initiatives are underway in Southern nations, to promote food sovereignty. Farmers there are also struggling to compete against heavily subsidized imported foods from the North. Globalized agriculture has displaced local landholders, wreaked havoc on the local environment, and increased the reliance of these countries on food imports (Rosset, 2006; Shiva, 2000), much the same as it has done in North America¹⁷. Local agriculture, on the other hand, promotes small scale local farms, keeps people on the land, promotes biodiversity, and supplies local markets (Schwind, 2005). Examples of its success are best illustrated through the case of Cuba and their turn to local production almost over night (Rosset, 1998).

Localism has been seen as a process in which greater freedom from the global domination of the food chain can be attained. The local is deemed to be a solution to the global system, since proximity is believed to lead to empowerment (Kloppenburger et al., 1996). At the local level, the relationships between one another and with the environment become clearer and more ethical since the individuals and community members will directly feel the repercussions of acting otherwise. This in turn ensures that the social and natural resources the community utilizes to fulfill those needs remain healthy. For example, preserving farmland is not a high priority for urban residents unless it directly affects their food supply, or unless they care for the land being built upon.

Agro-food research has particularly focused on 'defensive localism' and 'quality food' as the potential motivators of this turn to a more local food economy (DuPuis & Goodman, 2005; Lapping, 2004; Watts et al, 2005). Defensive localism is seen as a protective measure against impeding outside influences on the local economy, whereas quality food has been popularized due to growing mistrust with industrial food supply chains.

Research however suggests caution in basing alternative food movements on defensive or commodifiable constructs (DuPuis & Goodman, 2005), as this can exacerbate local inequities and can co-opt and dilute values of these movements through their incorporation into industrial food channels (Allen, 2004; DuPuis & Goodman, 2005). Since quality is a difficult concept to define

and characterize, labeling has increasingly been used to create awareness about a product's quality, eg. organic or fair trade. Labeling, however, requires the need for the ideas behind the label to be verified and they may be subject to fetishism¹⁸ (Watts et al, 2005). This is not to say that quality is an unimportant component of alternative agrifood systems only that it should not be the sole means of distinguishing this market from the industrial food system, since the ideas behind what this means can be morphed out of context to benefit the industrial system to which it is trying to pose alternatives. DuPuis and Goodman suggest that by using reflexive and democratic politics in developing local food systems, ethical behaviour can be encouraged, but it is not a given.

On the other hand, bioregionalist theory sees political boundaries as artificially defined and problematic, since they cut through bioregions and cultural boundaries, and asks us to re-stake the territory of politics to coincide with natural boundaries (Berthold-Bond, 2000). This movement also criticizes highly centralized governments since it transcends local values and customs of places. They state that globalization leads to cultural, economic, and technological homogenization where societies become unresponsive to local environment and climates (Frenkel, 1994). Therefore ethical behaviour toward each other and the environment can not be encouraged either.

Hines (2000) suggests that localization does not have to mean a return to overpowering state control and does not mean walling off the outside world. Rather, localization should be about government provision of policy and an economic framework, which nurtures locally owned businesses that use local resources sustainably, employ local workers, and serve *primarily* local consumers. It means becoming more self-sufficient and less dependent on imports; where control moves away from corporations and back to the community.

Relocalization then, can be seen as a restructuring of governments towards participatory governance, in which decision-making is made through local networks of self-governing actors coordinated through multi-layer institutional structures (DuPuis, & Goodman, 2005). Changes to this extent will however, require support and changes from actors outside the local (eg. provincial and national governments, as well as from the international community).

¹⁸ Making claims that products are not able to hold up, eg. people associating organics with a certain standard that may no longer exist with the industrialization of organics

Moving toward a more localized food system in Canada, will require a movement of power away from provincial and federal governing bodies to the municipal level. Not only will this require more control of the issues pertinent to the community by local governments but also increased involvement of the stakeholders in the food system.

3.4 Definitions of Localism

Since the global food system is based on distancing¹⁹, alternatives must focus on proximity as a response (Kloppenburg et al., 1996; Kneen, 1995). The issue with local however, is that its definition is subjective (Anderson, 1999) and can be defined either spatially or relationally. The meaning of local will likely vary depending on the social, ecological, and political circumstances that define it (Feagan, 2007).

In a survey conducted by Gupill (2002), geographic definitions of 'local' between respondents tended to include the local county and surrounding counties, or a 30 mile radius. It has also been suggested that what is considered local can also have to do with freshness (Guptill & Wilkins, 2002), as well as the distances between communities (Hinrichs, 2003).

The literature also focuses on the importance of place in building strong alternative agrifood systems. For example the civic agriculture literature focuses on the requirements of building a sense of place, belonging and responsibility to it, as well as embracing community shared spaces (DeLind, 2002). Kloppenburg et al (1996) echoes this by stating that the first step in building alternative local food systems is developing a connection to place. Both these authors resonate with many of the premises of bioregionalism which promotes a move from the predominant anthropocentric view of the world, to a more biocentric view, where nature has intrinsic value on its own and therefore elicits moral behaviour toward it (Berthold-Bond, 2000). When people live within the confines of their place, this connection allows people to discover the laws and limitations of their place.

Berthold-Bond (2000) argues that even bioregions are human constructs, however, since they depend on human interaction with the environment in determining what characteristic of the bioregion will be used to define it, i.e. watershed, vegetation, animals, topography, climate, etc.

¹⁹ Distancing refers to both the physical distance between point of production and point of consumption as well the extent to which the food has been altered from its raw state by processing (Kneen, 1995).

The bioregion then is defined both by nature and by human culture/economics, given that the features of the region we look at in defining bioregions also differs based on our idea of 'what counts'. Bioregions will therefore be defined by how people define their sense of place.

Hinrichs (2003), on the other hand, promotes the idea of diversity-responsive localism, where an elastic boundary exists between what is and is not local, recognizing the content and interests of local are relational and open to change. This definition goes on to recognize that it is personal contact that elicits change, and that this direct contact can still occur to a certain extent over large distances (i.e. fair trade). Localism is therefore not necessarily incompatible with globalization.

DuPuis & Goodman (2005) argue that localism should be perceived, not in opposition to, but as part of globalism. Contrasting local versus global food systems, Bellows and Hamm (2001) suggest the local and global are not two separate entities operating in isolation, and in turn view systems as either 'more local' or 'more global' depending on their reliance on outside food imports and their degree of local autonomy. Sourcing needs to remain flexible as complete reliance on local production is neither completely feasible nor sensible (i.e. we can not grow tropical fruits, and if there is a disaster threatening our production we do not want to be totally cut off). It is also important to recognize that social change requires support from, and opposition to, forces beyond the local (Allen, 2004). Part of making localism work then is making it flexible to the global reality we live in.

As Hines (2000) argues, localization involves a supportive internationalism where the flow of ideas, technologies, information, culture, money, and goods has as its end goal the protection and rebuilding of local economies worldwide. The new goal should reflect self-reliance where possible deriving food from the locality first, then the geographical region, and only as a last resort from world resources.

3.5 Previous Work

To date, little empirical research exists within the literature on local food system development in Canada. Soots' (2003) work most closely parallels this thesis by examining the barriers, opportunities, and potential strategies to local food system development in the Region of Waterloo from the perspective of local farmers. In her study the key barriers identified included: apathetic consumers, declining farmer income, and resignation of farmers concerning the

dominant global agri-food paradigm. Key opportunities included: a strong Mennonite community and culture of farmers' markets, presence of academic institutions, public health initiatives, increasing consumer health concerns, and the potential for CSAs and community gardens in the region. Strategies to move forward focused mostly on changing consumer attitudes and behaviours, but also on developing a community vision and policy framework directed towards the allocation of funds for physical and human resource development.

Despite the overlap that exists between this study and that by Soots, this study builds on her earlier work by extending the scope of her research to include multiple stakeholders and communities. This will develop a comprehensive sense of what the challenges are from the different stakeholders, determine the universality of these findings, while at the same time adding to the broader literature with empirical research focusing on the Canadian context of food system localization.

3.6 How to make it work

From interviews with local professionals and observation of community food systems in California, Feenstra (2002) has compiled information on what is needed to facilitate the development of local food systems. Her research revealed the need for community members to have access to social, political, intellectual, and economic spaces. In terms of social space, this includes opportunities for community members to come together and share ideas and learn from each other. Political space refers to opportunities to institutionalize sustainable food system efforts, and translate these ideas into local policy. Creating intellectual space is also important for bringing multiple disciplines and community perspectives together to reflect and evaluate ideas. Lastly, addressing economic needs, by recirculating local capital, and learning how to leverage local resources and manage funds creatively and responsibly, is also essential.

In addition, research also suggests that it is important to determine in what ways alternative food systems are alternative, to better understand the parameters in which they attempt to operate (Watts et al, 2005). Watts et al (2005) have classified these systems as weak or strong based on their ability to maintain their alternativeness without cooption into industrial food supply chains. Strong networks are seen to be alternative spatially (decrease distance food travels and the number of players in the food chain), socially (provide personal contact, information flow, and trust), economically (smaller scale farmers producing higher value products with a higher degree

of self-reliance), as well as in terms of diversity (produce a wider selection of produce) than industrial food supply chains.

Lapping (2004) goes on to highlight some of the more popular examples that represent the criteria required for strong alternative food systems: farmers' markets, CSA's, and niche metropolitan enterprises²⁰. Other less popular examples that have been noted include: u-pick operations, grower controlled cooperatives, on-farm processors, small-scale off-farm local processors, and roadside stands (Lyson, 2004). One limitation of direct marketing is that most of the benefits go to farms near urban areas where sales occur; farmers further out are limited by transportation costs (Gale, 1997). Other studies focusing on consumers have shown that this group is more interested in quality than price (La Trobe, 2001), and that price is also not a major deterrent for institutions to buying locally (Starr et al., 2003).

Guptill and Wilkins (2002) suggest there is also an opportunity for small retailers to pair with farmers to build local capacity. Additionally, there are opportunities for farmers to form brokerages and coops to enable them to meet the higher supply demands and product selection required by institutions and large retail outlets (Starr et al., 2003). However, other research has emphasized that the adoption of local produce in supermarkets can undermine the capacity of local food to empower the local economy. They claim that this fails to thwart corporate influence and build connections between rural and urban communities (Guptill & Wilkins, 2002). In this respect, the social aspects of direct marketing are perceived to be as high as the economic aspects (Gale, 1997).

Making a local food system work will require a diversity of markets to be explored. Keeping in mind both the potential benefits and limitations of the different marketing channels will be required to make a local food system work.

²⁰ Niche metropolitan enterprises are farms in 'urban-influenced counties' which tend to be specialized in high-value commodities and direct marketing. CSAs or Community-Supported Agriculture is a type of agricultural enterprise consisting of consumer shareholders who reduce risks for the farmer by supplying money or time at the beginning of the season in return for weekly deliveries or pick-ups of vegetables, and sometimes flowers, fruits, herbs and even milk or meat products.

3.7 Chapter Summary

Although the debate continues regarding the potential limitations and benefits of food localization, the vast majority of the literature on alternative agrifood systems attempts to strengthen its movement as a viable 'alternative'. Where contradiction comes in is in questioning the underlying premise of the system within which these alternatives are functioning. Questioning the underlying assumptions of the alternative food movement only provides for necessary caution in applying food localization to a community.

This debate suggests that we have to not only work for small changes at the local level, but also continue to push for changes at higher levels, if we truly want a sustainable and equitable food system. Alternatives to the industrial system are needed, but not without the long-term vision of larger changes to our social and political institutions. Without this larger consciousness, the neoliberal values that prevail will continue to impede alternative movements and create disparities within society.

Despite this debate, there is enough evidence that localism can move communities to increased empowerment, local control, and provide economic, social, and environmental benefits. As these theories have been moved to action, more and more local food initiatives have sprung up at the regional level. As a result, this study is following the assumption that food localism can be an effective solution to the problems associated with the global industrial food system. As such, it will expand upon the limited information that exists regarding the challenges Canadian communities are facing in moving in this direction and provide some remedies to the ills created by the global food system.

As outlined here, some research exists to define barriers/opportunities to the development of a local food system. However, research is still needed to determine the universality of these findings, and applicability to other stakeholders in the food system. Currently, there is a lack of literature on what a strong local food system should look like, what the barriers are to each stakeholder's participation, and what the opportunities are for communities to move forward with their own local food system. This study contributes to the literature by pulling together theoretical ideas, as well as empirical research on the barriers and opportunities to developing more localized food systems in Canada. It is hoped that this study will be the first of many in

establishing a baseline for communities that wish to pursue the promotion of local food, and/or develop a local food policy.

Chapter 4

Case Studies

I have chosen three case study locations in three different provinces in Canada as a basis for this research. These case study sites include: Waterloo, Ontario; Lethbridge, Alberta; and Nelson, British Columbia. These case study sites were selected due to the diversity of farming types, local cultures, as well as their geographical and political distinctiveness from one another. This chapter will provide a more detailed overview of the local demographics, geography and climate, agrifood system, farming ethos, food initiatives, as well as definition of *local* for each community. This will help to set the context for the results of this study, as reported in Chapter 5 and 6.

The Regional Municipality of Waterloo, the County of Lethbridge, and the Regional District of Nelson, together provide diverse cases, making it possible to compare the relative challenges and prospects for local food production in Canada.

4.1 Waterloo

This Region is nestled between Lake Huron to the North and Lake Erie to the South. Specifically, it is located within the Grand River Basin, with both the Grand River and Laurel Creek passing through the Region. The Regional Municipality of Waterloo has a population of 438,515 people as of 2001. (Statistics Canada, 2007a). The Region spans a total area of 1,369km² and consists of seven municipalities: Cambridge, Kitchener, Waterloo, Wellesley, Wilmot, Woolwich, and North Dumfries (Region of Waterloo, 2006a).

5.5.5 Agri-Food System

There are 91,378ha of farms with 72,954ha under production in the Region. There are 1,955 farm operators in the Region and 1444 farms (Statistics Canada 2007b). Most of these farms are located in the Wellesley and Woolwich Townships, and to a lesser extent in Wilmot Township (Region of Waterloo, 2003a). Farms in North Dumfries and Wilmot have larger farms with an average farm size 200+ acres/farm.



Figure 1. Map depicting the location of the Region of Waterloo within Ontario.

The most common farm types in the Region are: dairy, beef, swine, cash crops, and mixed farms (Region of Waterloo, 2003a). Corn for grain, alfalfa mixtures, soybeans, corn for silage, and mixed grains are the major cash crops of the Region; swine and cattle are the major livestock animals here (Statistics Canada, 2007b). Poultry and fruit and vegetable farms also exist in the Region but to a lesser extent (Region of Waterloo, 2003a). Only 21 farms in the Region are certified organic and the majority of these farms produce field crops (RWPH, 2003).

Forty-eight percent of the farms in the Region are owned by individual families; however this number has been on the decrease in the last few decades (Region of Waterloo, 2003a). In all areas of the Region the number of farms and area farmed are on the decline.

Some farms in Waterloo Region are deriving over 50% of their total farm receipts from direct sales to consumers (Region of Waterloo, 2003b). A variety of products are marketed directly by local growers including fruit, vegetables, herbs, grains/flour, maple syrup, honey, and various beef, pork and poultry meat products.

Food processing also exists within the Region in the form of meat processing, bakeries, and wholesale and distribution (Region of Waterloo, 2003b). Schneiders Foods, Piller's Sausages & Delicatessons, National Grocers Ltd., Dare Foods Ltd., Hostess Frito-Lay, Parmalat Canada Ltd., and Weston Bakeries all have a presence within the Region.

4.1.2 Farming Ethos/Philosophy

Waterloo Region has a sizeable population of Old-Order Mennonites, which make up a large share of the farmers in the region.

The high degree of mixed livestock farming and farm-gate sales in Waterloo Region is consistent with Mennonite farming practices (RWPH, 2003). Mennonites are "people of the land", with the farm being part of their belief system (Katona, personal communication, March 2, 2007). They are therefore tied to the farm, and do a little of everything to generate income from the farm, although some have sideline businesses.

Old Order Mennonites reject most technology unless it is deemed necessary for their farming practices or approved by the church (Martin, 2003). As a result, many of these people also use horses to get around as well as to do their farm work (Township of Woolwich, 2006).

Mennonites have been able to remain financially viable at farming by avoiding some of the high expenses of farming by sharing labour and equipment (Martin, 2003). Their farms are also smaller than non-Mennonite farms to preserve land for their children, and because of their lower cost of production, they do not need as much land to make ends meet (Katona, personal communication, March 2, 2007).

Non-Mennonite farms in the region are larger, less diversified, rely more on outside sources of income, and increasingly on agri-tourism to subsidize their farm.

4.1.3 Local Food Initiatives

Many of the local food initiatives in the Region of Waterloo have come out of the Public Health department. The Region of Waterloo Public Health Planners, in their Community Food Systems Group, have done extensive research into the local food environment and agricultural sector in

the Region. The Region's Public Health Department has been a pioneer in leading the way to developing a holistic view of the role of agriculture and local food availability to a healthy community. It has published several reports covering topics from local branding strategies, to food miles and redundant trade²¹.

Public Health has also more recently hosted a series of focus groups with local stakeholder groups in the food system. This is leading to the development of a Food System Round Table to continue the dialogue and momentum toward localizing the food system.

The Region of Waterloo Public Health was also instrumental in the formation of Food Link Waterloo Region. FoodLink Waterloo Region is a local non-profit that helps create “partnerships between food producers, processors, retailers and consumers to promote the sale and consumption of locally grown and produced food (FoodLink Waterloo Region, n.d.)”. They achieve this through their monthly Local Harvest Newsletter, their Buy Local Buy Fresh Map, and their Taste Local Taste Fresh annual event.

Opportunities to buy local food in the Region are also relatively plentiful. The region has the first and only produce auction in Canada, the Elmira Produce Auction Cooperative, which gives local farmers an opportunity to sell small volumes of produce locally. The Region also has several farmers’ markets, community supported agriculture farms, and a plentiful number of roadside stands which directly market local food to consumers.

Local food is also profiled through festival celebrations in the Region. For example, St. Agatha has an annual Strawberry Festival, Elmira an annual Maple Syrup Festival, and Wellesley an Apple Butter and Cheese Festival.

4.1.4 Waterloo Definition of Local

For the most part, the definition of 'local' in Waterloo by key informants interviewed assumed the political boundaries of the Region as local²². If using their own personal opinion, their definition of local grew to include a broader definition, more in terms of consuming food as close to you as

²¹ A complete list of reports can be viewed at <http://chd.region.waterloo.on.ca/web/health.nsf/4f4813c75e78d71385256e5a0057f5e1/f9e487c67fac45e885256fe90060adf6!OpenDocument>

²² This is likely since this is all that is in their jurisdiction as public employees to cover.

it grows (a more reflexive definition), eg. grain from prairies, apples from Ontario, oranges from Florida, etc. While some had defined geographical or environmental boundaries (eg. bioregions), others said the important piece of local is in *knowing* or having a *relationship* with a producer/farmer.

Here, there was no mention of regional boundaries in key informants' personal views of local since most people interviewed saw that political boundaries are arbitrary in defining where food should be coming from. It appeared that most opinions of local followed the 'as close as can be possibly produced' mentality.

In terms of consumers, most reported buying Canadian products first, then Ontario products, then Waterloo regional produce; most check only at the national level.

Farmers in the Waterloo Region that participate in the local market also sell outside the region, to the provincial, interprovincial, and global market. Their opinions of local appeared to more closely follow regional boundaries, likely as a result of FoodLink and Public Health's mandates.

4.1.5 Waterloo Summary

A population with rural roots, as well as an abundance of small diverse family farms, offers an advantage to Waterloo in the movement toward a more localized food system. The work of Public Health and FoodLink, as well as numerous options for sourcing local food are all assets unique to Waterloo Region. There are also food processors located locally, and rapidly growing migration into the region.

In terms of agriculture and climate, the long growing season, well-drained soils, and adequate precipitation during the growing season make this area an ideal place to grow a diversity of crops, as is reflected in the mixture of agricultural commodities that already exist in the region. Here, the main biophysical limitations to the development of a more localized food system tend to come from outside biophysical conditions to include urbanization pressures.

In addition, the strong Mennonite farming community, with their small mixed farms, and cooperative ideologies offer advantages for the development of a more localized food system in

the Waterloo Region. In addition, local food initiatives coming out of Public Health and FoodLink provide additional support for localization initiatives in the community.

The most used definition of 'local' in Waterloo is Regional, following the mandate of several key organizations working on localizing the food chain. Other ideas of the meaning of local were based on relational, and reflexive definitions, eg. knowing your producer and/or buying product grown as close to you as possible.

4.2 Lethbridge

The County of Lethbridge includes the communities of Barons, Coaldale, Coalhurst, Nobleford, and Picture Butte (County of Lethbridge, 2006). It is located in Southern Alberta an hour from the American border to the South. Lethbridge is the largest community within this region with a population of 77,202 (Economic Development Lethbridge, 2006a). The topography consists of rolling prairie (originally grassland but now primarily agricultural); and the Oldman River is the sole waterway throughout the region (Agriculture and Agri-Food Canada, 2005).

The Lethbridge area has a warm summer climate, and along with irrigation, this makes the region very productive. Irrigation in this area is essential to the production of high value crops, as it substantially enhances yields in this otherwise water scarce region. Irrigation is used predominately for cereals, specialty crops, and to a lesser extent forage production and oilseeds.

4.2.1 Agri-Food System

Agriculture is the main industry in the region; it has spin-off effects for the retail, wholesale, and service sector as well (Economic Development Lethbridge, 2006b). The County of Lethbridge accounts for 33% of farm-gate sales of agricultural products in Alberta despite only having 18% of the province's producers and 17% of the province's arable lands.

The County of Lethbridge grows livestock feed and produces raw materials for processing and export markets (Economic Development Lethbridge, 2006b). Most of the food grown and processed in Lethbridge is then exported to the US, Japan, Mexico, China, and Iran. Beef and dairy production are important components of the local agricultural sector. Wheat, however, is

the major crop of the region; it is processed locally and is exported around the world. Other grains include barley, canola, flax, rye, and oats. Organic production in the area is lower than other parts of the province and country, and mostly focuses on livestock and field crops, with limited organic dairy and vegetable production (Snider, personal communication, April 13, 2007).



Figure 2. Map depicting the location of the County of Lethbridge within Alberta.

The County also produces the majority of Alberta’s specialty crops including: potatoes, cabbage, carrots, corn, confection sunflowers, dry beans and peas, canning peas, lentils, onions, forage seed and sugar beets. Many of these crops are also processed in the Lethbridge region due to its close proximity to the US market for export.

Lethbridge is also the centre of provincial and national agricultural research being home to a Research Branch of Agriculture and Agri-Food Canada, Alberta Agriculture, Food and Rural Development, and the Animal Disease Research Institute (Economic Development Lethbridge, 2006b). Lethbridge also has a branch of the Canadian Food Inspection Agency.

4.2.2 Farming Ethos/Philosophy

The Hutterites dominate the local market in the Lethbridge area. Hutterites live in colonies of between 60-160 people with every person in the colony having an assigned job (HBSC, 2006a). Almost all Hutterites are sustained through agriculture, farming on average 4000 acres (HBSC, 2006b). Grains and livestock (poultry, hogs, and/or beef) are the main commodities of the colony. Hutterite colonies produce most of the food they consume, with excess sold off colony. Colonies have readily taken up new technology to keep pace with changing farming conditions.

Hutterite colonies in the Lethbridge area sell produce farm-direct, as well as through farmers markets. Hutterites supply produce, as well as baked goods, and sometimes meat locally. Their access to a large free pool of labour works to their advantage, giving them a competitive edge in the local market.

Other farmers in the Lethbridge area follow this large-scale, export- or processor-oriented mentality; growing to meet the needs of larger market forces. Farmers from this area commonly come from a multi-generational farming background carrying forward some of the more conservative and competitive ideas of agriculture from their farming past. The broader resurgence of interest in niche and direct marketing is however slowly being taken up by local farmers.

4.2.3 Local Food Initiatives

In Lethbridge many of the local food initiatives are coming out of Alberta Agriculture Food and Rural Development, as well as from regional economic development initiatives, eg. South Grow²³. The Alberta Government supports local food initiatives through their Regional Cuisine initiative whose goal is to connect Alberta agricultural production and food products with food purchasers (Alberta Agriculture, 2007). They provide workshops to farmers to develop their skills, knowledge and understanding of the needs of the food service industry. They also sponsor

²³ SouthGrow is an economic development alliance of 24 southcentral Alberta communities (Southgrow, 2007). It assists "communities, organizations, businesses and people in the regional alliance to further their economic development goals and to maintain a high quality of life (SouthGrow, 2007)".

an annual Dine Alberta event, which showcases local products in restaurants throughout the province.

The Alberta Government is also supporting local food through its provision of a New Venture Coach to assist producers in developing new commodity markets and/or value-added businesses. Funds are also available to these producers through AVAC's Agrivalue Fund that invests in research initiatives and early-stage commercial businesses to expand Alberta's value-added industry. AVAC also has an Ag Research Program, where money is available to support research and development of value-added production in Alberta. In addition, AFSC (Alberta Financial Services Corp.) also provides loans to farmers, and business plan coaching to farmers throughout Alberta. The Alberta Government also supports agri-tourism initiatives by supplying information to interested farm operators that would like to develop a tourism component to their operation.

In addition, South Grow has been working to raise awareness of local products and opportunities for local producers. They recently conducted a study entitled "SouthGrown Validation and Feasibility Analysis" (Elliot et al., 2006). This report profiles some of the opportunities and interests in a local label and marketing strategy for locally grown foods in the SouthGrow Regions.

The region also boasts of expanding farmers' markets and Taber Corn stands which provide direct marketing opportunities for farmers in the area. Hutterite colonies also market a lot of produce through farmers' markets, but also do some door-to-door selling, as well as retailing from the colony.

4.2.4 Lethbridge Definition of Local Food

The definitions given of 'local' by key informant interviewees had to do with geographic radius/distance, commuting time, as well as with regional boundaries. Some key informants considered all of SouthGrow Regions, all of Southern Alberta, or even all of Alberta to be considered local. Some pointed to the fact that they feel local is self-defined by the seller. There was no mention of the number of players in the food chain, the connection to farmers, or what can be grown where.

Most consumers never check where produce is grown and subsequently do not make a special effort to buy Canadian, Albertan, or regional produce.

Farmers interviewed in this area sell to a variety of local, provincial, and global markets.

4.2.5 Lethbridge Summary

Overall, the area's warm climate, flat land, rich soil, and access to irrigation make this region very productive. The soil, length of the growing season and amount of sunlight are all adequate to grow a variety of different crops. The availability of water here is the main limiting factor; however, with access to irrigation this is being overcome.

Low immigration into the area may help preserve agricultural land but also limits local marketing opportunities. Many food processors exist in the area but they are predominately focused on global markets. Despite this, however, Lethbridge is a centre for agricultural research and development, receives support for local ventures from the Alberta Government and Alberta Economic Development (SouthGrow Region), and has blossoming farmers' markets and Hutterite farms that all help keep local produce available.

Support for local food initiatives is coming from regional alliances as well as the provincial government. Money available to farmers aids entrepreneurial ventures, but is not solely for local marketing and retailing of products. Farming operations in the region are large and, for the most part, make use of industrial farming practices. Hutterite farmers dominate the local market with their produce sales.

As to how local is defined, political considerations again come into play. The definition of local was much larger than in the other two locations and more about political boundaries and geographical considerations than about relationships. This was also depicted in the scale of agriculture, large-scale processors, and markets in the area.

4.3 Nelson

Nelson is located in the Southern Interior of British Columbia in the Central Kootenay Regional District. Nelson sits on the shores of Kootenay Lake, one of the largest lakes in British

Columbia, and is surrounded by the Selkirk Mountains. The Regional District has a total landmass of 22,131 km², with 11,567 ha of this land in agricultural production (Statistics Canada, 2007c). The Region extends from the Duncan River at the north to the American border, just south of Fruitvale, and extends from just east of Creston to the mountains west of the Arrow Lakes above Needles (Central Kootenay Regional District, 2006). Municipalities in the region include: Castlegar, Nelson, Creston, Kaslo, Nakusp, New Denver, Salmo, Silverton, and Slovan (Ministry of Community Services, 2006).

4.2.1 Agri-Food System

Agriculture is the main industry in the region; it has spin-off effects for the retail, wholesale, and service sector as well (Economic Development Lethbridge, 2006b). The County of Lethbridge accounts for 33% of farm-gate sales of agricultural products in Alberta despite only having 18% of the province's producers and 17% of the province's arable lands.

The County of Lethbridge grows livestock feed and produces raw materials for processing and export markets (Economic Development Lethbridge, 2006b). Most of the food grown and processed in Lethbridge is then exported to the US, Japan, Mexico, China, and Iran. Beef and dairy production are important components of the local agricultural sector. Wheat, however, is the major crop of the region; it is processed locally and is exported around the world. Other grains include barley, canola, flax, rye, and oats. Organic production in the area is lower than other parts of the province and country, and mostly focuses on livestock and field crops, with limited organic dairy and vegetable production (Snider, personal communication, April 13, 2007).

4.3.1 Agri-Food System

The top five crops in terms of land mass in the Regional District include alfalfa, hay and fodder crops, canola, barley, and potatoes (Statistics Canada, 2007c). There are also 11,520 head of cattle and a small number of swine.



Figure 3. Map depicting the location of the Regional District of the Central Kootenays within British Columbia.

Creston is the centre of agricultural endeavor in the Central Kootenay Regional District. This area produces grains as the main cash crops, but also potatoes, field peas and beans, forage seeds and hay are also cultivated (Province of British Columbia, 2001). The Creston area also has a significant amount of tree fruits, particularly apples, and berry crops²⁴. There is also a dairy industry here but due to limited local processing it has been on the decline in recent years. Beef cattle, hogs, and poultry are also present in this area.

Despite favourable climate and soil, agriculture in the Castlegar area is limited by transportation factors, alternative employment opportunities and other considerations (Province of British Columbia, 2001). Fruit farming once flourished in this area but was mostly wiped out by disease in the early 1930s. The Hugh Keenleyside Dam has also raised water levels and flooded some agricultural lands. The agriculture which does exist in this area consists mostly of mixed farming, with an emphasis on beef. Some agricultural activity also exists in small pockets near Kaslo and Salmo. The large majority of agriculture in this area is small-scale and produced using organic methods.

Of the 25,292 acres in the Region under production in 2001, 18,746 acres were in hay, 681 acres in tree fruits, 273 acres in vegetables and 85 acres in berries (Province of British Columbia, 2001).

²⁴ Tree fruit production here is second only to the Okanagan Valley.

Good agricultural land is really only located in the Creston area and narrow strips along major valley bottoms (Province of British Columbia Ministry of Environment, 1980). Many of the soils in the area are not suitable to agriculture due to the steep topography and stoniness of the soil. Most of the land in the Kootenays therefore poses extremely severe limitations that preclude agricultural use (Natural Resources Canada, 1980).

4.3.2 Farming Ethos/Philosophy

Doukhobors have a strong presence in the Kootenay Region. This group maintains values of non-violence, love, hospitality, cooperation, and justice as their principle religious tenets (Tarasoff, 2002). At one point they lived communally farming the land as a means of preserving these values. They adopted a simple communal lifestyle, and embraced vegetarianism and pacifism out of respect for all life. Since this time, there has been a steady progression in their thinking from a sectarian religion to a moral and social movement (Tarasoff, 2002). Today, Doukhobors are actively engaged, at home and abroad, in the pursuit of peace, human rights, social justice, and respect for the environment. These values have attracted other pacifists and activists to the area and may explain the 'back-to-the-land' phenomenon here, where a new generation of farmers takes over every couple of decades (Brynne, personal communication, March 15, 2007)²⁵.

Many of the farmers in the Nelson area are first generational farmers, with most also incorporating many of the tenets of the pacifist roots of the community (i.e. strong environmental and social values) into their own farming philosophy. These farms are nearly all organic, small-scale (a few acres) and service local consumers (Brynne, personal communication, March 15, 2007). Farms here produce the full range that is possible here - from ground crops to tree fruit to livestock²⁶.

4.3.3 Local Food Initiatives

Initiatives to promote local food in Nelson are not as formally developed as in Lethbridge and Waterloo. This is likely due to the limited amount of agriculture nearby and abundant

²⁵ Although there are those who grew up on farms and continue to farm they are the minority.

²⁶ Not really any grain though since the land base is too small to make it economically viable.

opportunities to market locally that currently exist. Despite this, local food is a very important issue to many of the residents in the region, and local distribution channels proliferate.

Support for local food is exhibited by the success of the Kootenay Coop grocery store, which favours local suppliers, and works with local growers to ensure their product makes it to their store shelves. Big grocery chains in Nelson also try to support local produce²⁷. Endless Harvest an organic home delivery service also buys direct from local farms to sell to consumers in the region. Community supported agriculture farms and farmers' markets exist in the region as well.

Grassroots organizations are also taking to the cause. The Nelson Food Coalition, for example administers the Nelson Food Cupboard (a barrier-free food bank), and a new group has also recently formed, Community Food Matters, their mission is to engage the whole community in the development of initiatives, activities and policies that create a locally sustainable and secure food system.

The Kootenay Food Strategy Society is also in the process of forming in the Castlegar area. This group is attempting to start coordinating initiatives on food issues, support existing initiatives, assist new efforts, and obtain a local food policy for the region. Kootenay Coop Radio also has an educational radio program, entitled 'Deconstructing Dinner', which discusses current local, regional, and provincial food issues empowering community members to get involved in shaping their food system.

Kootenay Boundary Interior Health also offers grants to community members/groups that would like to work on food-related initiatives in their community.

4.3.4 Nelson Definition of Local

The local key informant version of 'local food' again follows regional boundaries, the Kootenay Boundary Region, i.e. Grand Forks to Trail. Definitions of local by key informants were based on a variety of characteristics, including regional boundaries, connection of producer to consumer, distance (i.e. within so many kilometers), and by what grows where – expanding the definition of local for grains, fruits, etc. As one key informant stated, the cost of transport will

²⁷ This is unique compared to other parts of the province and country.

determine what is local; as soon as the cost of fuel goes up substantially, this will determine who sells their product where.

For the most part, consumers interviewed here check to see where their food was produced and make a special effort to buy Canadian, British Columbian, and Kootenay products; they choose as local as they can get, preferring Kootenay over B.C., and B.C. over Canada.

Most farmers here sell only to the local market, including Nelson and area, having the philosophy of feeding your neighbour first.

4.3.5 Nelson's Summary

The mild winters and warm summers, in addition to a decent amount of rainfall and a moderately long growing season make the climatic conditions of this area good for many agricultural products. There is a wide array of crops being grown in the Creston Valley as a result; however the steep and stony terrain of the majority of the Kootenays makes agricultural production more difficult.

Overall, there is a strong interest in localism in general with cooperatives being quite prolific in the area. Initiatives to promote local food however are less institutionalized than in other areas, but they are growing. Most of these initiatives are coming from the grassroots level.

The farming community is mostly first generational farmers with a strong environmental ethic. Small-scale market gardens proliferate and almost exclusively support the Nelson community, either through retail outlets, farmers' markets, home delivery services, or community supported agriculture projects.

Local food is a very high priority for both growers and consumers in the Nelson area. The definition of local here is mixed but centers around shortening the food chain and making connections with growers.

4.4 Regional Comparison

All regions have access to a nearby water source. All grow cereals, dairy, beef, and forage crops but the Central Kootenay Region has more fruit production. Lethbridge's agricultural sector is focused on beef and cereals, Waterloo maintains more mixed farming operations, and Nelson is focused mostly on small-scale vegetable crops.

The difficulty in transportation in the mountains of the Kootenay Region, however, presents difficulty in trade but also elicits favourable conditions for more localized food systems. In contrast, the small mixed farms and strong Mennonite Community present a significant opportunity to the development of a more localized food system in Waterloo. Lethbridge has more capacity for local processing than the other regions; however, most of this is for large corporate exporters and not solely for local consumption.

Population size as well as focus of the local economy differs substantially between regions. Nelson is the smallest and has a focus on forestry and mining, Lethbridge is mid-size and has a strong agricultural focus, and Waterloo on the other hand is the largest and is focused more on industry and technology. Additionally, distinct differences in ethnic diversity and population stability exist between the regions with Waterloo having the largest ethnic mix, as well as most migrant population.

Each of the regions has local food initiatives under way with Waterloo's being the furthest developed. Extensive research and development on what is needed to begin localizing the food system, as well as social marketing campaigns have already been started here. Lethbridge is currently at the research stage where marketing and actions to promote local food products are still being evaluated. In Nelson, initiatives are mostly coming from the grassroots, and somewhat constrained to educational initiatives or small individual projects.

The three communities also have different philosophies on agriculture. In Waterloo, small mixed Mennonite farmers dominate the agricultural community. In Lethbridge large-scale export-oriented farms dominate, with the Hutterite community exerting a strong presence in the local market. Nelson however, has mostly small market gardens that grow almost exclusively for the local market.

No one definition of local really dominated anywhere, leading to a somewhat subjective definition of what local is, based on the personal and jurisdictional interpretations of the interviewee. In Lethbridge, political and geographical depictions of local tended to dominate. Here there was also not a strong sense of loyalty to the local market by either producers or consumers. Lethbridge viewed local for the most part as anything produced within Alberta. In Nelson, there is a strong sense of supporting local by both farmers and consumers. Definitions in Nelson focused more on a micro-scale, growing for your own community first. Developing connections and relationships between consumer and producer was emphasized more in Nelson. In Waterloo, there was a weaker sense than Nelson of the need to support a local food economy by farmers and consumers. This resulted in a more reflexive definition of local of the three communities; promoting products grown/produced regionally first, but being open to imports of product during off-season, as well as for items that can not be grown there. Overall, no concise definition of local existed within or between communities. The definition of local is subjective and exists along a scale of geographical, political, and relational dimensions.

Next, the dynamics of these communities will be analyzed in terms of these characteristics and how they create opportunities and barriers to the development of more localized food systems.

Chapter 5

Barriers to Local Food System Development

For the purposes of this study, the barriers to localizing the food system that have been found in this study have been arranged into general themes. These themes include: consumer barriers; policy, regulatory, and corporate barriers; infrastructural barriers; retail barriers; and farmer and agricultural capacity barriers²⁸.

These broad themes have been further classified based on the level of control at which these barriers function, as either externally or internally controlled. Externally controlled barriers are classified as barriers that function outside of the community, which the community has little power to resolve itself. Internal barriers are influences functioning at the local level that the community *has* power to overcome. Internal and external barriers however, overlap in so much as local communities are not totally disconnected from events external to their community, and thus, can press for changes at higher levels of government.

The broader themes have also been broken down into whether they are community specific or experienced universally by all communities. While some fit neatly into categories of community-specific or universal, there is a range in between that is sometimes hard to characterize. Understanding this is crucial to developing a successful strategy to move forward in localizing the food system.

In the following sections, barriers to the development of localized food systems in Canada will be broken down and explained as to why they are perceived to be barriers, their level of impact, their universality, and the communities in which they were noted.

²⁸ The barriers mentioned in this chapter are a collaboration of ideas put forward in the consumer survey, key informant, farmer, and supermarket interviews, as well as from personal observation of the case study sites, relevant literature, and conference speakers. As a result, the exact group that brought up each of the barriers is not mentioned since most themes emerged from the pooling of ideas from a variety of sources.

5.1 Consumer Barriers

Many barriers exist in obtaining not only support but also buy-in from consumers; these obstacles were frequently cited in both Lethbridge and Waterloo. Although most consumers believe that supporting local farms is important, not all of these people actively look for, or source, local products. Nelson is believed to be an anomaly in recruiting consumer support due to the social and environmental philosophy that is a large part of the local culture. Although consumer barriers have a great deal of potential at the local level to be overcome, they will likely continue to be hard to change due to the difficulty of reforming consumer behaviour.

Table 1. A summary of the consumer-related barriers. The amount of local control over resolving the barrier, the communities the issue was mentioned in, as well as the universality of the barrier is listed.

Barriers	Level of Control	Communities	Universality of Barrier
Consumer			
Consumer Awareness/Education	Internal	Lethbridge, Nelson, Waterloo	Universal
Convenience	Internal	Lethbridge, Waterloo	Universal
Demand for Inexpensive Food	Internal/External	Lethbridge, Nelson, Waterloo	Universal
Older Demographics Supporting Local	Internal	Lethbridge, Waterloo	Community-Specific

5.1.1 Consumer Awareness/Education

Most Canadian consumers are disconnected from their food source; they do not participate in growing it, or even know the people who did. This has resulted in a lack of awareness in the general population as to issues being faced by our rural counterparts. Additionally, since more and more of our food dollars are spent in retail/restaurant outlets, it is difficult for the small farmer to find local markets for their product. This barrier is *universal* in scope while being *internally controlled*.

Consumers are not always aware that by purchasing imported products over local products it makes it difficult for the small farmers in the community to stay in business. By choosing the imported product over the local product, it sends signals up through the food chain, which results in more food from abroad entering the local market. With more and more small farms going out of business, this could potentially leave the community food insecure.

Consumer education, although arguably high in the Nelson area already, was also seen as a barrier to localizing the food system. Particularly, educating people of the seasonality of local foods and the situation of farming in Canada was seen as lacking. This concern was also echoed in the Region of Waterloo.

In Lethbridge, more so than Nelson or Waterloo, many consumers surveyed did not seem to think about buying local as a criterion they look for when they shop²⁹. This could lead to the conclusion that people do not see the value in supporting local farmers in Lethbridge. that they do not see the connection between their purchasing habits and the rise and fall of farms, or that they take it for granted that the products in the store are locally derived. Lastly, it could mean that they do not see their local farmers as producers of the kinds of foods they buy, i.e. processed foods, fruit, dairy. Consumer education and awareness will therefore be essential in the development of any substantial market base, particularly in Lethbridge.

5.1.2 Convenience

Following from the consumer survey that was conducted, there was an interest and willingness to buy local products for a number of different reasons. The barriers to buying locally however are not only a general lack of awareness in regards to what foods are local, but also the inability to purchase local products through mainstream, convenient channels. The lack of convenience ties into the fact that it is difficult for large retailers to source local products due to issues with consistency, volume, and logistics of purchasing from small farmers. The lack of local products in convenient locations, and subsequent easy identification of these products, makes it difficult for consumers to easily buy local products or identify them when they are present.

²⁹ With only 13 out of 30 consumers checking to see where their food comes from versus 17 out of 30 in Waterloo, and 20 out of 30 in Nelson, as was found in the consumer survey.

With busy lifestyles, one-stop shopping is also what most consumers prefer. Without local products being able to make a significant dent in the marketplace, consumers who demand local products will have to go out of their way to obtain them, eg. farmers' markets, CSAs, farm-gates, etc.

Convenience was the biggest issue in determining where people shop in both Lethbridge and Waterloo. This is illustrated by the fact that people in Lethbridge and Waterloo mostly obtain their food from large supermarkets. The issue of convenience may be further compounded since local products are for the most part separated from mainstream food channels in these locations³⁰. In Nelson, due to customer demand, local products (at least of BC origin) have penetrated all retail sizes, i.e. from the Save-On-Foods to the local coop. The city itself is smaller and likely not as inconvenient to shop at one store/place versus another.

Conversely, it is also inconvenient to shop when farmers direct market³¹. Although farmers maintain a larger share of the food dollar this way, it also creates more trips to the various places to get all their food supplies, and as one key informant noted 'people won't go out of their way for a local product'.

The issue of convenience is *internally controlled* and *universally* expressed. It is universally expressed in so much as other studies have also mentioned convenience as an issue in obtaining locally produced foods (Stephenson & Lev, 2004; Babcock, 2006), and internally controlled in the sense that regional planners can help in making local foods more readily available.

5.1.3 Demand for Inexpensive Food/Low Food Prices

Canadians expect food to be inexpensive and when it comes to purchasing their food they look for the biggest bang for their buck. Canadians have been spending less and less on food as a percentage of their annual income as the years go by. Canadians have some of the cheapest food in the world, spending a mere 10.6% of their disposable annual income on food (Canadian Federation of Agriculture, 2007).

³⁰ This may be even more so in Waterloo, as opposed to Lethbridge, since Hutterites in Lethbridge sell some of their vegetables in larger retail outlets.

³¹ The exception being CSAs which offer home delivery. However, cooking time may become less convenient due to the seasonality and diversity of the produce offered.

Demand for inexpensive food was one of the most cited barriers to the development of a more local food system by farmers and key informants in Nelson and Waterloo³². This barrier is *universal* and *internal*, as it was mentioned in all communities but can be challenged and changed within the community itself.

Although many consumers in the survey responded that they would be willing to pay more for a local product, other literature and sources have shown overwhelmingly that what consumers say and do are not necessarily the same (Babcock, 2006). When it comes to making the choice between a local and an imported product, more often quality and price will dictate which product they buy. Consumers will only choose the local product over the imported product (especially if it costs more) if they perceive some added benefit from buying the local product, i.e. they won't buy it just *because* it is local.

The price of local foods for consumers was an issue in all communities. However, in Waterloo as opposed to Lethbridge or Nelson, cost was slightly more of an issue in determining where people shop for their groceries. This issue was also brought up in Waterloo during key informant interviews that have expertise in the social marketing of local foods. Cost of local foods could be more of an issue here because of the high student population or larger immigrant community.

The issue of demand for inexpensive food is both *internally* and *externally controlled*, as well as *universally* experienced as a barrier to the development of a more localized food system. This issue is only internally controlled in so much as consumer education can be used to curb peoples spending habits. External influences, such as permitting cheap imported foods into markets, will however make changing consumer behaviour that much more difficult³³.

³² This was also validated by the consumer survey and supermarket interviews.

³³ Subsidies to US farmers also play a role in the proliferation of cheap food. The US Farm Bill subsidizes certain input commodities such as corn, soy beans, and wheat based on the acreage farmers produce. The result is overproduction of these commodities that are then sold throughout the world for cheaper than the cost of production. These commodities in turn provide a cheap source of raw inputs for many processed foods and deflate food prices globally. Low commodity prices put pressure on farmers around the world to compete in order to sell their product. This in turn makes some of the proliferation of cheap food out of the control of the community[0].

5.5.5 Older Demographics Supporting Local

In Lethbridge and Waterloo it was brought up by some that it is mostly the older demographics that are supporting local markets. As this group is gradually replaced by younger generations, there may be negative repercussions on local markets, which could have difficulty attracting younger audiences. This occurrence is likely due to the fact that older generations are more connected to their rural roots than younger generations. However, other market managers felt that their market has a good mix of different groups and ages attending, and that this is reflected in farmers' markets being the fastest growing market for primary production in their province. This issue is more likely *community-specific* and *internally controlled* since differences exist between markets and locations.

5.2 Policy, Regulations, and Corporations

Table 2. A summary of the political, regulatory, and corporate barriers noted in this study. The amount of local control over resolving the barrier, the communities the issue was mentioned in, as well as the universality of the barrier is listed.

Barriers	Level of Control	Communities Cited	Universality of Barrier
Policy, Regulations, & Corporations			
Land Use Policy	Internal/External	Nelson, Waterloo	Community-Specific
Health and Safety Regulations	External	Lethbridge, Nelson, Waterloo	Universal
Federal/Provincial Agricultural Policy	External	Lethbridge, Nelson, Waterloo	Universal
International Trade Obligations	External	Nelson, Waterloo	Universal
Transnational Corporate Influence	External	Lethbridge, Waterloo	Universal

General consensus is that agricultural policy is not conducive to the development of a localized food system. Land-use policy, health and safety regulations, and federal and provincial agricultural policy, all favour large producers and processors, which focus on an export-oriented agrifood system.

5.2.1 Land Use Policy

Zoning issues in Waterloo are problematic since they prevent farmers from exhibiting innovation and starting on-farm businesses. Regional zoning laws, for example, prevent small farmers in the Waterloo Region from reselling their neighbours' produce at their roadside stand. These by-laws also prohibit many on-farm businesses that involve the processing and selling of food from the farm gate. Existing land use policies essentially work against what is needed for some elements of a more localized food system to function.

In Nelson, some local bylaws can override higher level provincial policy (eg. BC Right to Farm Act) that is supposed to protect small-scale producers^{34,35}. Another barrier that was also mentioned here was the lack of local agriculture councils or committees to be the voice for agriculture in decisions around land use planning, and changes to the Agricultural Land Reserve Act.

Impeding urban sprawl on agricultural lands, as well as the fact that many urban planners do not think about food and access to it when designing cities or making by-laws, adds another element of difficulty to the situation.

This issue is a *community-specific* barrier to the development of a more local food system in Waterloo and Nelson³⁶. This barrier is both *internally* and *externally controlled*, since jurisdiction over land use falls under both municipal and provincial control.

5.2.2 Health and Safety Regulations

Government regulations are also creating difficulties for small-scale producers and processors. These regulations have prevented farmers from processing food on the farm without first requiring specialized equipment and provincially inspected status. These standards are usually in place to resolve food safety issues that have been created by the industrial farming system, but are

³⁴ As one key informant mentioned an instance where local bylaws required set backs from property boundaries.

³⁵ This has actually put some farmers out-of-business and contravened the BC Right to Farm Act.

³⁶ In Lethbridge, land use policy was not perceived to be much of an issue to on-farm processing and retailing. The only issue mentioned was that farmers partaking in these activities are subject to higher taxation.

being applied equally to all farmers/processors even if they are not involved in this large-scale system of agriculture.

Many of these regulations are also criticized for having nothing to do with the safety of food either, eg. the federal regulation to have a meat processing facility require so much space for parking and for visitors to view the facility. There is also a belief that these standards are introduced to protect large corporate interests in the food system. Because these standards are expensive to achieve, it makes it difficult for small farmers/processors to comply, forcing them out of business or to have to sell to large-scale food processors. Smaller farmers/processors, however, claim that it is in their best interest to ensure a safe and quality product, otherwise their business will go bankrupt, therefore they see the regulations imposed on them to be overkill.

Supermarket chains have certain standards that are only voluntary requirements of producers, but are required for suppliers to meet if they wish to supply produce/food products to their market, eg. HACCP Standards³⁷. Shareholder resolutions have been a part of adding these additional standards in order to ensure to customers (who are increasingly skeptical of food safety) a safe product. This however, makes it nearly impossible for small farmers to be able to access these markets since this certification is very expensive. Again, these added requirements frustrate small processors/farmers who have been forced to adopt higher levels of certification to maintain markets with large retailers. This is a result of having the added expense of achieving these standards, but not receiving any more money for their product. As a result, all these added expenses are passed along to the farmer with no compensation for compliance. The cost of implementing HACCP standards is proportionally higher for small processors than for larger processors, who can offset the costs due to market size.

In Nelson in particular, the BC government's recent requirement that all meat has to be processed in a provincially inspected facility has put a lot of small animal producers out of business. These farms used to slaughter on their farm for local customers, but are no longer permitted to do this. Because the area does not have a provincially inspected facility nearby, it is now difficult for farmers to participate in this aspect of agriculture. Not only are these regulations hurting small-farmers financially, but they there are also putting some small meat producers out of business.

³⁷ Hazard Analysis Critical Control Points (HACCP) is an internationally accepted process/tool used to identify specific hazards and measures to ensure the safety of food (FAO, 1997). HACCP assesses hazards and establishes control systems that focus on prevention rather than on end product testing.

These barriers are *external* in terms of their level of control, while being *universal* in scope. Both key informants and farmers brought up this issue in all three case study locations.

5.2.3 Federal/Provincial Agricultural Policy Not Conducive to Small-Scale Agriculture

Many participants of this study, in all three case studies, felt that federal agricultural policy works against the small farmer/processor. Most of the farm extension work has been left to large corporate enterprises that focus on cash crops for the global market. The health and safety standards set by upper levels of government are nearly impossible for small growers/processors to comply with. As well, little information is supplied to help farmers fulfill innovative ideas or assist them with risk. Federal policy also positions Canada as an exporter of agricultural products and has allowed the importation of cheap foods, which can be grown locally, into the country.

In Lethbridge, there is more money and assistance available to entrepreneurial farmers compared to Nelson and Waterloo. However, higher-level policy still favours an export-oriented focus. This focus encourages farmers to get bigger in order to compete, and encourages large corporate food processors (eg. McCain Foods, LamWeston, Schneiders, etc.) into the area instead of smaller microprocessors. The policy at higher levels of government then ultimately filters down and affects the kind and size of agricultural production occurring at the local level.

A lack of government support to small-scale or specialty product producers, is a *universal* barrier and functions for the most part *externally* to the community. Some internal control over policy is exhibited in the extent to which local communities have an impact on decisions at higher levels of government, and their citizens also vote in members of parliament that influence this. Internal control also exists in the determination of local policy and regulations.

5.2.4 International Trade Obligations

Barriers posed by international trade obligations are *universal* and *external* to local control. International trade obligations that Canada is a part of have opened up and flooded our market with cheap imported product year round. Even during times of peak production of certain crops in Canada, these same products are imported and often times sold for less than what small local

farmers can compete with. This redundant trade makes cheap imported food available at the same time peak production of certain crops occurs in Canada. This phenomenon is wrecking havoc to our local farm economies, both large and small.

Imported food is often cheaper due to export subsidies provided to large American farmers. As well, differential costs of production (due to different health and safety regulations, environmental laws, labour standards, costs of inputs, and costs of living) between farmers in developed and developing nations also contributes to imported product being cheaper than locally produced products. As one key informant in Waterloo mentioned, to be able to compete, the standards that Canadians farmers are held to, such as those relating to environment and labour, should also be applied to imported products. This would then create a fairer playing field. In Canada, pesticide application rates are stricter, and minimum wage requirements are higher than many of the countries we import from, making farming relatively more expensive here³⁸. To encourage local production, these standards need to also screen imported foods, so that they too meet up with the standards to which Canadian farmers are held.

International trade obligations are reinforcing provincial and federal agricultural policy that favours production for export as opposed to for the local market. This in turn forces many farmers to have to sell their product on a vulnerable commodity market, leaving them little control over the prices they receive. The Wheat Board³⁹ is also being pegged as being trade distorting by WTO member countries. The impact of international trade obligations can be illustrated through the repeated motions filed through the WTO by the US regarding the Canadian Wheat Board as creating unfair trade barriers to imported grains (CWB, 2007).

Both farmers and key informants brought up this issue in Waterloo, but also indirectly in Nelson and Lethbridge. Issues that surfaced in Lethbridge focused on the Wheat Board from farmers, whereas in Nelson and Waterloo issues focused more on international trade obligations involving the importation of cheap foodstuffs. The issue of international trade obligations was also brought up in the literature applying to the markets of developing nations, and the impact of the WTO's AOA (Agreement on Agriculture) on local markets (Pascual & Glipo, 2002; Oxfam, 2001), but which applies equally to Canada.

³⁸ Because World Trade Organization (WTO) regulations prevent discrimination of a product based on the conditions it was produced under, this places Canadian producers at a disadvantage.

³⁹ The Wheat Board is meant to protect farmers by jointly marketing their product.

5.2.5 Transnational Corporate Influence

The amount of corporate influence and control in the food system has been touched on by some of the other barriers, but it itself remains a distinctive barrier to the development of a local food economy. Corporations are increasingly involved in determining agri-food policy, ensuring their interests are heard. Corporate consolidation is also occurring as already mentioned in the retail and processing sectors, but also in farm input sectors (i.e. seed, fertilizer, etc.). Farmers that market their products through traditional channels are therefore being squeezed at both ends⁴⁰. The farm input sectors and the retail and processing sectors, as well as government policy, are all encouraging farmers to 'get big or get out'. As well, farmers that choose to market their product locally, are limited in what they are able to sell due to barriers created by industry, that make it difficult for small-scale producers to gain market access or compete price-wise.

The privatization of extension services is also being left to large corporations that have a vested interest in some of the products they teach farmers about. It then becomes difficult for corporate interests to promote what may be in the farmers' best interest. For example, issues of direct marketing and adding value at the farm-gate do not fit within the interests of large seed and chemical suppliers therefore little effort goes into aiding farmers in these types of pursuits.

The issue of transnational corporate power was brought up in Lethbridge and Waterloo by key informants, but became most apparent from surveying the literature (Kneen, 1995; Canada's National Farmers Union, 2005; Lyson, 2004). This barrier is *external* to community control and experienced *universally*. The power of transnational corporations resides in corporate boardrooms outside of the communities they influence and their actions are transnational, spanning community borders.

5.3 Infrastructure – Processing Infrastructure

Lack of access to local processing, particularly microprocessors, pose barriers to the development of local food systems. In Nelson this community is also plagued by the additional concern of a

⁴⁰ Canada's National Farmers Union (2005) released a report documenting record profits for corporations that farmers rely on for their inputs and outputs (including oil companies, fertilizer, chemical, and seed input sectors, as well as grain handlers, railways, food processors, packing plants, and flour mills) in 2004 while farmer's net market income at the same time was - \$16,000.

lack of access to provincially inspected abattoirs. Whereas, a lack of access to processing infrastructure is a universal issue, access to inspected abattoirs is community-specific.

Table 3. A summary of the infrastructure barriers noted in this study. The amount of local control over resolving the barrier, the communities the issue was mentioned in, as well as the universality of the barrier is listed.

Barriers	Degree of Control	Communities Cited	Universality of Barrier
Infrastructure			
Processing Infrastructure	External/Internal	Lethbridge, Nelson, Waterloo	Universal
Provincially Inspected Abattoirs	External	Nelson	Community-Specific

5.3.1 Processing Infrastructure

Farmer and key informant participants, in all three case study locations, agreed that there is a shortage of local food processors, especially micro-food processors in their vicinity⁴¹. A cost-competitive global market has left only a few players in the food processing industry remaining to compete. These processors mostly contract farmers to grow for them, buy from supply management boards, or will purchase from 'raw input providers'⁴². Although, larger food processors also market their finished product back to the community they source from, much of this product is exported out of the region. Due to their size and volume, solely marketing their products locally is not viable.

Lethbridge, and Waterloo to a certain extent, has been able to attract some of the larger food processors because of their large supply of agricultural products (but many other communities are not as lucky). However, because these processors are large and often sell on the international market, many of these processors are not available to the small farmers. As well, these facilities only exist for a few commodities in each of the regions. Again, with a highly competitive global market, processors have to be big to survive and therefore small processors are put out of business.

⁴¹ This issue is tied into the regulatory barriers created for value-added businesses to on-farm processing.

⁴² These processors source mostly from local farmers but substitute with imported product from other regions of the country when they cannot source enough locally.

In Nelson, very few microprocessors currently exist. Rebuilding microprocessors may also be one way of stimulating more agriculture in the region. Rebuilding micro-processing capabilities, however, will be another hurdle communities will have to face in localizing their food system⁴³. Not only will rebuilding micro-processing be difficult, in terms of finding companies to do this, but also in being able to compete with cheap mass-produced items of a similar type⁴⁴.

The erosion of microprocessor numbers is a *universal* and *externally controlled* phenomenon in the sense that local microprocessors are being eroded by large corporate food processors. This could also be *internally controlled* considering municipal and regional governments may be able to create incentives for small processors to locate in their region or facilitate the start up of incubator kitchens⁴⁵.

5.3.2 Provincially Inspected Abattoirs

Provincial agricultural policy mandates provincial or federal levels of inspection for abattoirs, which as mentioned earlier, makes it more difficult for small meat producers to exist. These provincial regulations have come about as a means of preserving food safety to consumers. Although this policy exists already in Ontario and Alberta it has just come into existence in B.C. This new regulation in B.C. has particularly been an issue in the Nelson area where distances to inspected facilities are larger. One goat farmer in the Nelson area has left the profession altogether and several others are getting rid of all their animals as a result. This regulation therefore will severely restrict the ability of the Central Kootenay's to have a diversified agricultural sector and offer local meats. The lack of access to provincially inspected facilities makes this issue one of not only policy but of a lack of infrastructure as well.

This issue is *externally controlled* and *community-specific* in scope, due to the variability between communities on the limits that access to abattoirs poses.

⁴³ Especially in light of stringent health and safety standards.

⁴⁴ Large food processors are also better able to offset added costs of compliance to health and safety standards, which gives them a competitive marketing edge.

⁴⁵ Incubator kitchens are commercial kitchens that can be leased to small microprocessors (eg. retailers, farmers, caterers) to prepare and process food.

5.4 Retail

Centralized buying and distributing to get bulk purchases cheaper, as well as for ease of invoicing prevents many large-to-medium sized stores from buying local products. High safety standards and lack of independent store purchasing decisions, especially with large stores, is also an issue. Local farmers as well cannot meet the supply and cost-competitiveness large stores need in order to justify stocking more local product. Larger chain stores overall did not see any possibilities of selling more local produce.

Table 4. A summary of the retail-related barriers noted in this study. The amount of local control over resolving the barrier, the communities the issue was mentioned in, as well as the universality of the barrier is listed.

Barriers	Degree of Control	Communities Cited	Universality of Barrier
Retail			
Consolidation of Food Retailing	Internal/ External	Nelson, Waterloo	Universal
Cost Competitiveness in Retail/Institutions	External	Waterloo	Universal
Storage and Delivery of Product for Small Stores	Internal	Nelson, Waterloo	Universal

For smaller stores the issue was less about quantity or supply and more about storage, delivery, and variety of local products available. Medium-sized independent stores were more likely to see cost competitiveness of local products as the issue. Larger stores noted health and safety barriers, supply, and lack of independent store purchasing decisions as barriers to stocking more local produce.

5.4.1 Consolidation of Food Retailing

The consolidation that has been occurring in Canada is another barrier small farmers face in getting their product onto store shelves. Many of these large retailers require farmers to meet certain certification standards in order to be able to supply their chain of stores. In these cases

most of the chains are controlled by head offices that mandate the farmer be able to supply all of their stores within a certain vicinity if they wish to supply them. Farmers require large volumes in order to comply with this request and additionally have to foot the bill to get their product to a centralized distributor⁴⁶. This food loses its freshness in the process and sometimes results in food being shipped out of the region to the central distributor, then back into the region to individual stores. Some of these stores also require the farmer post a bond in order to supply their stores and hold them liable for any food safety issues that may emerge. As a result, usually only the large farmers in the region are able to meet these demands and have access to these markets. Centralized buying (with head office doing the buying for all their stores), as well as centralized distributing (all products having to go through a central warehouse), therefore pose large barriers to small farmers tapping into mainstream retail markets.

Smaller health food stores or independently run stores offer an alternative for small farmers to market locally by decreasing shipment, volume, and consistency requirements the large retail outlets demand of their suppliers⁴⁷. Larger stores tend to lack this independence in purchasing decisions that also pose hurdles in getting more local products into their store.

Ease of purchasing and cheaper prices were frequently cited reasons as to why stores chose large food service companies (i.e. Cisco, Bridge Brand, etc.) to supply them with foodstuffs rather than dealing with individual farmers. Purchasing from several different farmers as opposed to one food supplier makes accounting and invoicing much more difficult and cumbersome for retailers. This also poses logistical problems for retailers having to organize deliveries from several different suppliers.

Again smaller stores, which see their mandate as serving quality foods and themselves as a small local business, were more likely to go out of their way to source from local farmers.

In Lethbridge, Hutterites have a cheap pool of labour and a large area of land to grow for the local market since they work and live communally. The Hutterites, in addition to a few other large farms, are one of the few farm-retail connections that have been able to circumvent the barriers created by large retail for these reasons. Other small family farms remain isolated from this

⁴⁶ Even supplying one store can be a tough feat for many small farmers to be able to handle in terms of volume and consistency.

⁴⁷ Health food stores and independently run stores however are fewer in number than large supermarkets, which may limit their potential in developing alternative marketing routes for farmers.

market however, since they can not compete with the prices and/or volumes of large-scale operations. Because large retail stores dominate the Lethbridge market, this exacerbates the problem by limiting the markets available to small farmers.

In Nelson, local product is available in most stores, whether small or large, however more so in smaller stores. The difference cited here is that in Nelson, local products are demanded and stores claim they will lose business if they do not stock local product. In Nelson, the issue is more about supply than available markets.

In Waterloo, consolidation of the retail sector still remains a large barrier. However, with the growth of the Elmira Produce Auction Cooperative, more local produce is able to access retail markets. This has allowed greater access of small farmers to retail stores since they are now able to supply large consistent volumes of product.

The consolidation of retail has also permitted stores to enforce certain standards they would like their suppliers to meet, generally in terms of health and safety. As mentioned above, the cost barrier for smaller farms to be able to afford this and still be profitable becomes higher.

Consolidation of retail is a *universal* and *externally controlled* issue facing Canadian municipalities. This issue is external in terms of the communities not being able to prevent retail consolidation themselves, and also in that large retail chains have already entered most municipalities. However, this barrier is also *internal* to the extent that communities make the choice as to what retailers they allow to enter into their communities.

5.4.2 Cost Competitiveness in Retail & Accountability of Institutions

Consolidation in food retailing has also made it difficult for stores that want to source local products. Without demand coming from customers, the added expense of sourcing local combined with logistics of having to source from many different farmers therefore does not make much sense⁴⁸. This was a bigger issue for mid-sized stores that have to compete with the larger

⁴⁸ This added expense comes from the higher cost of production for local farms. Expense is also added due to the time to organize small volume deliveries and the fact that they are not buying bulk.

chains. Smaller retailers, on the other hand, saw added quality in a local product and used this as a way to entice more customers into their store⁴⁹.

The added cost of buying local is also a barrier for public institutions (i.e. schools, hospitals, public offices) to come on board with sourcing more local products. With limited budgets, institutions are held accountable for all their spending, and it is difficult to justify paying more for a local product. For institutions there is also a need here for products to come partially processed, eg. peeled, diced, etc., which further compounds the problem of sourcing locally. Although this issue was raised in Waterloo, it is likely an issue affecting the majority of municipalities in Canada due to the trend toward transparency and accountability of institutional budgets.

Both these issues are *universal* and *external* to a community's control. Some internal control does exist however for municipal and regional operated institutions (eg. schools and hospitals) that have control over their own budgets.

5.4.3 Storage and Delivery of Product for Small Stores

Despite a strong interest in purchasing local product from smaller stores, issues of storage of the product sometimes become problematic. When dealing with local farmers, storage of the product is required so daily deliveries are not needed. Also, coordinating the delivery of these products is challenging when dealing with multiple suppliers or farmers. Farmers need to be able to deliver when they have product and also when they have time. It is difficult for farmers in the peak of the season to juggle daily deliveries.

Storage and delivery is a *universal* and an *internal* issue.

5.5 Farmer and Agricultural Capacity Barriers

Several barriers to localizing the food system emerged from a production standpoint. Issues of oversupply of agricultural commodities, a competitive farming community, limited local farmers/land, time-knowledge skills for direct marketing, unstable pay, a lack of certified

⁴⁹ This was typically the case for health food stores. The catch here is that the local product has to be organic in most cases.

markets, and falling farm incomes combined with rising cost of land, and risk averse farmers are all barriers to producing for the local market.

Table 5. A summary of the farmer and agricultural capacity barriers noted in this study. The amount of local control over resolving the barrier, the communities the issue was mentioned in, as well as the universality of the barrier is listed.

Barriers	Level of Control	Communities	Universality of Barrier
Farmer & Agricultural Capacity			
Competitive Farming Community	Internal	Lethbridge, Nelson	Universal
Limited Local Farmers/Land	Internal	Nelson	Community-Specific
Time/Knowledge Required for Direct Marketing	Internal	Lethbridge, Nelson, Waterloo	Universal
Unstable Pay at Farmers' Markets	Internal	Lethbridge, Waterloo	Community-Specific
Lack of Certified Farmers' Markets	Internal	Waterloo	Community-Specific
Falling Farm Incomes and the Rising Cost of Land	Internal/ External	Lethbridge, Nelson, Waterloo	Universal
Risk Aversion of Farmers	Internal	Lethbridge, Nelson, Waterloo	Universal

5.5.1 Oversupply of Agricultural Commodities

In Lethbridge another barrier that was brought up by both farmers and key informants was the fact that Lethbridge does not have the population density to be able to support a health food market. The Lethbridge area is heavily involved in agriculture and in particular grains. There is too much grain produced in this area to feed solely the local population so most of it has to be exported.

This issue was also noted in Nelson. However, here it was more about farmers opting to grow crops that are easy to grow, instead of varieties that are more difficult but which are in lower supply. This oversupply of certain commodities drops prices of these commodities and limits the diversity of what is available locally.

Oversupply is a *community-specific* issue, which can be addressed *internally* by exploring 'niche' product markets, and other commodities in which their acreage could be expanded.

Producing more than can be consumed locally, however does not mean that more local connections cannot be fostered, especially with fruit and vegetable crops. For example, diversifying the agricultural sector in the area and getting more farmers to grow vegetables to feed the local market, is one potential area for uncovering new local markets. Despite this however, the Hutterites feel that the market for fruits and vegetables, is also over supplied and driving down prices. Considering the amount of imported food from outside Canada in mainstream retail, restaurant, and institutional channels, however, there is still considerable room for growth in this area.

5.5.2 Competitive Farming Community

Farmer competition for markets for certain commodities that grow well in an area deflates price. This issue was mentioned in Nelson, as well as in Lethbridge with competition with, and between, Hutterite Colonies.

As the Hutterite communities grow, they split off from each other. Consequently there are a lot of colonies competing for a limited market. These groups, instead of working together, are fiercely competing with each other for a piece of the local market and slashing prices to do it. There was an attempt to organize these farmers into a cooperative to enable better prices to be obtained for their products, but colonies were soon undercutting the cooperative so as to gain sole access to these markets.

In Nelson, this competition is less obvious but makes farmers have to be quite strategic with what they grow, as well as when and how they market it. Certain products are easier to grow and therefore the supply is high and demand low. By marketing these products at non-peak times and in some cases in a slightly processed form, farmers can still receive a decent price for their

product. Farmers feel the need to protect such secrets from their peers so as to keep these markets for themselves.

Waterloo, on the other hand, seems to have a more cooperative farming mentality with farmers working together to create new markets for their products. Although this is happening to a certain extent in Lethbridge and Nelson, Waterloo farmers have had the most success and made the most progress in forming alternative marketing routes for small producers. A shining example of this cooperation is in the success of the Elmira Produce Auction Cooperative which pools local produce and auctions it off to local buyers.

Although Waterloo has successfully achieved a cooperative farming venture, it appears to be the exception to the norm. Waterloo is the exception here likely due to the large Old-Order Mennonite population. Most farming communities are competing with each other for markets instead of working together to find meaningful solutions to problems. Most communities have farmers much like in Nelson and Lethbridge, which feel obligated to protect their 'niche' markets from competitors for fear of risking their livelihood. As a result this issue is *internally controlled* (through the local farming culture) and *universally* applicable.

5.5.3 Limited Local Farmers/Land

The Nelson area and the north part of the Kootenays are fairly rugged terrain and not very conducive to agriculture. Also, due to the fact that Nelson is not in a main transportation corridor, this has also limited agriculture in the area. These factors, in addition to the low pay farmers receive, and the lack of experience of young people in the area with agriculture, have really limited the amount of food being grown in the region.

The rugged terrain also prohibits what can be grown. Fruits and vegetables on a small scale can be grown in the area but as for large orchards, grains, and meat, the land base poses a severe restriction that is difficult to overcome.

This is a *community-specific* and *internally controlled* barrier with more difficult challenges that may not fully be able to be overcome. This in turn has influenced what some consider local.

5.5.4 Time/Knowledge Required for Direct Marketing

Some of the farmers interviewed mentioned that to overcome the barriers to market access⁵⁰ they were direct marketing their product to the public. Some farmers saw this as a great and doable solution, whereas others saw it as a huge investment in time. Having some intermediary may be essential for more farmers to come on board and be interested in exploring more direct-marketing opportunities in their community, as was suggested by key informants and farmers in all three locations.

Disconnect between farmers and consumers have also made it difficult for farmers to know what consumers want. Many farmers have been using the same channels to market their product for generations and changing this is difficult as they lack some of the skills and time to investigate new marketing opportunities. This was particularly cited as a barrier in moving towards a localized food system in Lethbridge.

This barrier is therefore an *internal* barrier, which can be resolved locally and is *universally* experienced.

5.5.5 Unstable Pay at Farmers' Markets

Some farmers also mentioned that the pay at farmers' markets is too unreliable for them to be interested in exploring, or as a reason they no longer participate in this aspect of the market. Other farmers felt that the farmers' market is a great opportunity to connect with their clientele and to get a fair price for their product. In some communities 'price wars' between farmers/sellers in the community posed somewhat of a barrier to farmers getting the price they wanted, in the need to compete. Other farmers felt that the face-to-face connection that the farmers' market provides gave them the chance to explain their prices to the consumer, which they otherwise would not have the opportunity to do.

The unstable pay is compounded by the fact that, especially in Waterloo, many of the local farmers' markets have vendors selling produce from the Toronto Food Terminal⁵¹. Much of this

⁵⁰ As well as for other reasons, i.e. get better prices for their product.

⁵¹ Some resellers even pawning themselves off as local farmers.

produce is sold side-by-side locally grown vegetables, which makes it very difficult for the consumer to know what is local and what is not. This also puts pressure on some farmers to be cost-competitive with imported produce.

Nevertheless, farmers cited selling locally as *relatively* financially lucrative since they can be price-setters instead of being price-takers when selling to commodity markets. Although they are still struggling to make a living by farming, they are able to provide a modest and stable income from direct-marketing their product to the consumer.

Unstable pay at farmers' markets is an *internal* barrier with links to the *community*.

5.5.6 Lack of Certified Farmers' Markets

The lack of certified farmers' markets was mentioned by key informants in Waterloo Region as a barrier to getting more local food into the local economy⁵². Allowing resellers at farmers' markets who purchase imported product from the Toronto Food Terminal is misleading to the consumer, takes away business from local farmers, and puts pressure on farmers to be cost-competitive. One of the farmers' market in Waterloo Region however, tries to limit resellers but finds it difficult to recruit new farmers to the market. When a local product is in season, however, vendors are required to sell the local product; they cannot sell imported product of the same type. Although this rule is not rigorously enforced, vendors seem to be respecting it. This however, is the exception and not the norm at farmers' markets in the Waterloo area.

Farmers' markets in Nelson and Lethbridge, on the other hand, both follow the philosophy of 'you make it, you bake it, you grow it' if a vendor wants to sell there. Two of the farmers' markets in Lethbridge are Alberta Approved Farmers' Markets, which mandates this philosophy, and the third market, although not approved, had all local vendors selling produce they grew or made. In Nelson, there were a few exceptions to this rule as they find it very difficult to attract farmers' to the market. The exceptions however, sell only B.C. product mostly coming from the Okanagan or local product sold by intermediaries.

⁵² This issue was also brought up at agri-food-related conferences in Southern Ontario and appears to be causing consumer confusion across the province.

This barrier is *community-specific* and *locally controlled*, since the community can decide their own market policy⁵³.

5.5.7 Falling Farm Incomes and the Rising Cost of Land

Land, especially near urban centers, is becoming more and more expensive. This, in the face of falling farm incomes, is deterring new and younger generation farmers from going into agriculture or from staying on the farm. Ensuring a decent standard of living for farmers and protecting and providing land for interested farmers is essential to moving toward a more local food system.

This barrier, although applicable to all communities studied, was a particular issue in Nelson due to the competition for land with the growing cottage/tourism industry. This barrier is *universal* however, since land prices everywhere are continually on the rise, especially near urban areas. This barrier also contains *internal* linkages (through local land use policies and urban development) but may well have *external* solutions to make it easier for aspiring farmers to enter into agriculture.

5.5.8 Risk Aversion of Farmers

With an increasing number of farmers on the brink of bankruptcy, it is extremely difficult for them to take risks into alternative or local markets, for fear of losing their farm. For many farmers, losing a family farm that has been passed down for generations would be a catastrophe. For some farmers this may motivate change, if their current management style is not paying back, but this is often a slow process. Farming communities tend to be conservative; where tradition is a big part of the local culture; people in these communities therefore react slower to new ideas.

Farmers in both Waterloo and Lethbridge appeared to fit more into this category. However, part-time farmers in Nelson tend to be risk averse and slow to try new things as well. It is likely more pronounced in Lethbridge and Waterloo as these communities have a longer history of farming and certain ideas of what farming is and how it operates. In Nelson, however, the farming population is often first generation farmers that have left the city or other jobs to take up

⁵³ Currently, Farmers' Market Ontario is in the process of developing a farmers' market certification program for interested markets in the Greater Toronto Area (GTA).

farming. They therefore do not have fixed ideas of what farming is and how it is done in more conservative areas of the country with long roots in agriculture. The general attitude of the people in Nelson and high community spirit may be another reason why farmers are not as afraid to take risks. They know there is an appreciable market for local food in the Nelson area, and do not see entering into other forms of local agriculture as intimidating. Part-time farmers in Nelson are likely more averse to risk, however, since they have less time to research and invest in new ideas.

For this barrier, some communities may experience this issue more significantly than others, however overall it is a *universal* phenomenon⁵⁴. The risk aversion of farmers is an *internally controlled* barrier in that the community can provide resources to producers to make this transition easier for them.

1.2 Chapter Summary

The barriers noted in this chapter are diverse and in many cases complicated to resolve. This research has determined that currently: food prices are too low; there is a need for people to start demanding local food and be willing to pay more for it; health and safety regulations for small growers are nearly impossible to meet; consolidation in the retail sector creates supply and transportation barriers for growers to sell to them; and unstable pay associated with direct marketing is also a huge turnoff for many farmers.

Overall, a collaboration of ideas from all three communities suggests that programs need to be developed to teach farmers about alternative markets and marketing of their products; this with adapted local zoning laws and by-laws, could facilitate more entrepreneurship on farms. At a higher level, overregulation and lack of legitimate support to small-scale producers from government combined with the consolidation of the grocery industry, low food prices, and an uneducated consumer create huge barriers to developing local markets.

Although some of these issues can be resolved at the community-level (at least to a certain degree) most will require support from higher levels of government to truly have lasting effects

⁵⁴ Nelson is an exception and not the norm for this issue. This is likely because of the local culture, which values and rewards local producers, and having many first generational farmers that are less set in tradition.

on the food system. With some of the barriers there is overlap in the issues and this therefore may make resolving one issue resolve several others at the same time. For example, building consumer awareness may decrease the demand for cheap food and increase the market for 'quality' local foods.

For other issues there is really nothing that can be done, for instance geographical limitations to growing certain crops or for agriculture in general. Instead of being overcome however this may force the community to reflect on what they choose their definition of local to be, and this may vary well differ between commodities.

Many of these barriers are universal, being faced by communities across the country. This provides insight into where the issues are originating that affect our communities. The politics around globalization and the impeding influence of transnational corporations are filtering down to the local level, and many citizens although vaguely aware of the importance of buying locally, are not fully aware of the true impact this is having on Canadian agriculture and food security.

Despite this, there is hope that many of these barriers can still be overcome so that a local food system can slowly begin to emerge. The following chapter will provide an overview of the opportunities to localizing the food system, and how they may help to overcome some of these barriers.

Chapter 6

Opportunities to Local Food System Development

Each of the communities in this study exemplified some prospect of challenging some of the barriers listed in the previous chapter. These communities are generally working in the face of these barriers to create their own alternatives to the current food system. Some of these opportunities are already underway while others are feasible and may require some political will from higher levels of government to make them a reality.

To help organize these opportunities they have been grouped according to themes. These themes include opportunities in: education/awareness, agricultural capacity, infrastructure, government and community support/involvement, local market(s), culture, as well as consumer and societal opportunities. The purpose of these themes is to help determine what area of the local economy these opportunities are coming from, and where the responsibility will lie in addressing them. Some of the specific opportunities within each of these themes have been recognized and classified based on comparisons made between case study locations, even though they were not specifically mentioned in each location.

Most of the opportunities that surfaced exist at the local level since this is where the region can exert power without the need for larger policy changes. As a result, many opportunities for action can be acted upon at the local level. Despite this, it is also important to note however, that many more substantial changes in localizing the food system are hindered by forces outside the communities' control. This then restricts to a certain extent, what communities can do to preserve or build their local food system.

The opportunities tend to be universal in terms of applicability. Because opportunities are dynamic and always changing it is difficult to classify them as either universal or community-specific, therefore they were not specifically labeled as community-specific or universal for the purposes of this study.

The opportunities have however been broken down into existing and potential. Existing opportunities are things/ideas/policies that are already in place and just need to be built upon; they do not require much change to the system currently in place. Potential opportunities, on the

other hand, require more work to achieve and will involve some sort of intervention. For example, although the political and social climate might be ripe for change, work must be done to figure out how to get there. It is important to note that not all locations will be at the same starting point. Some may have the potential in one area, eg. farm innovation, where others have already achieved this to a certain extent⁵⁵. For some communities, then, certain opportunities will be at the exploratory phase, while others will be at the point of developing these ideas/concepts further, or of actually implementing them.

The themes of the specific opportunities, the communities their applicable to, as well as whether the opportunities exist under current conditions versus future conditions, are all documented in each section.

6.1 Education/Awareness

Table 6. Educational opportunities to the development of a more local food system are listed as to whether they are existing, or have potential for development, in the communities in which they apply.

Opportunity	Existing, Expanded, or Potential	Community
<i>Education/Awareness</i>		
Growing Consumer Awareness/Interest	Existing	Waterloo, Nelson
	Potential	Lethbridge
Educational Campaigns	Expanded	Lethbridge, Nelson, Waterloo
Profile Local Food	Expanded	Waterloo, Lethbridge
	Potential	Nelson
Farmer Education	Expand	Lethbridge, Nelson, Waterloo

Many opportunities exist around education and raising awareness of both consumers and producers. Although a large part of the population is still interested in low cost food, there is a growing consciousness and interest in local food, as was illustrated in the consumer survey, by the number of people seeking out local products and wanting to support local producers. More and more consumers are associating the term ‘local’ with a high quality fresh product, and to

⁵⁵ Although most of these opportunities can never be fully achieved, they will always be a work in progress expanding as the need arises.

some it has become the new 'organic' (Guelph Organic Conference, 2007). This may be exemplified by the growth of farmers' markets in Alberta, as well as across North America (Farmers' Markets Ontario, 2007; Friesen, personal communication, July, 20, 2006; Payne, 2002). An increasing skepticism about the industrial food system may also factor into this growth. As was stated by a key informant in Waterloo, food scares such as Avian Flu and BSE, as well as increased awareness of factory farming production methods, have left people wondering where their food comes from and how it was produced. In turn, they want to regain a connection with the producer of their foods. This connection to the producer was mentioned in both Lethbridge and Waterloo as an opportunity local food systems could latch onto.

Consumers in all case study locations indicated that one of the main motivators to purchasing local was that they wish to support local farmers, and in Nelson particularly, the local economy as a whole. This connection between values and/or beliefs and supporting local agriculture will be another opportunity that local food initiatives can build upon.

Educational campaigns may also be fueling this increased awareness and demand for local products. Projects exist, or are being developed, in all three study sites, which promote local food and agriculture (FoodLink in Waterloo, Kootenay Food Strategy Society in the Kootenay's, and Regional Cuisine in Alberta). Exactly where these campaigns originate from may differ but the purpose remains the same, educating the public about the importance of buying or selling locally produced foods.

Community activism and an organization to rally for the cause were cited in Nelson as opportunities that could be strengthened to educate consumers. The Kootenay Food Strategy Society and KOG (Kootenay Organic Growers) will likely be the ones to do this. Along the same lines, developing a social marketing campaign to complement a local label is also an opportunity being explored in Waterloo. In Lethbridge, ideas of promoting farm tours, rural festivals, as well as more vague ideas of latching onto trends such as the 100-Mile Diet and the Slow Food Movement were also mentioned.

Education is needed from both the consumer and farmer standpoint. As was mentioned by key informants in Lethbridge and Waterloo, there needs to be a greater awareness of each other's needs. There is an opportunity on both sides to learn from each other, but this may also require government/community support, or mentor farmers, to really take off. Farmers need assistance regarding opportunities to market their products locally, as well as more information about what

consumers want. With more farmers experimenting with alternative markets, this provides mentors for other farmers who are considering entering into local markets.

Educating farmers about other options that exist in agriculture, besides large-scale commodity production for export, may be another important step and opportunity to build upon. Direct marketing routes will also provide a means for more information to pass from the consumer to the producer. Younger farmers with new ideas of agriculture taking over in Lethbridge offer possible interest in exploring alternative markets. Potentially involving immigrants in agricultural production is another future opportunity that could bring fresh ideas into the agricultural sector in Lethbridge.

Although there is an increasing awareness surrounding issues in the food system, there is still a need to push further. To expand upon this growing consumer awareness, following through on ideas that farmers, retailers, and key informants in all three regions had to attract more people out to their farms, or into their communities may be one way to achieve this. These ideas included farm tours, corn mazes, farm cafes, and food expos in Lethbridge, 'meet-the-farmer day' and 'harvest balls' in Nelson, and featuring farmers at small retail outlets in Waterloo. Bridging the links between rural and urban populations, and sharing the needs of producers and consumers, would be some of the benefits these types of activities might create.

Educational and marketing campaigns were cited as opportunities in Waterloo, especially in promoting the quality of food, local can provide. Emphasizing the freshness and healthfulness of local food would add to the already growing association that exists among these ideas. Additionally, stressing the link between buying locally grown food and supporting local growers could also be build upon. This association was one of the main drivers consumers surveyed in this study (in all locations) cited for choosing locally grown products. All of these are important educational tools that provide opportunities to connect farmers and consumers, and enhance education and awareness for both parties.

With increasing consumer dissatisfaction with quality of produce, combined with the connection of local food and quality, developing a local label may be one way to help consumers identify local products. With consumer interest in a local label in both Waterloo and Nelson⁵⁶, this may be one way to educate without requiring farmers to direct-market their product. In Lethbridge, a

⁵⁶ Both of which have citizens that already actively look for local products.

local label may help build awareness of other products that are grown locally aside from beef. However, supermarkets in Lethbridge felt that local products were already labeled (on packaging and sometimes with signage) and that a local label would therefore not be of interest to them. Consumers in Lethbridge on the other hand expressed some interest in this idea⁵⁷.

Overall, Waterloo already has an established social marketing campaign started, with the intent to expand it to include a stakeholder roundtable and local food label. Both Lethbridge and Nelson have limited educational campaigns underway. Nelson however has more awareness already there, whereas Lethbridge is lacking this.

6.2 Agriculture Capacity

Table 7. Agricultural opportunities for the development of a more local food system are listed as to whether they are existing, or have potential for development, in the communities in which they apply.

Opportunity	Existing, Expanded, or Potential Opportunity	Community
<i>Agriculture Capacity</i>		
Significant Agricultural Sector	Existing	Lethbridge, Waterloo
Agricultural Land Base	Existing	Lethbridge, Waterloo
Diverse Agricultural Sector	Existing	Lethbridge, Nelson, Waterloo
Access to Irrigation	Existing	Lethbridge
Agricultural/Farmer Innovation	Existing	Lethbridge, Nelson, Waterloo
Financial Pay Back of Direct Marketing	Existing	Lethbridge, Nelson, Waterloo
Farmers Ready for Change	Existing	Lethbridge, Waterloo

The agricultural capacity of a community can also offer opportunities for communities in localizing their food system. The ability of the agricultural sector to be able to produce for the local market could lead to the success or failure of a localized food system.

⁵⁷ It therefore may be that the labeling is not as obvious as the supermarkets think.

Having a significant agricultural sector with a considerable agricultural land base is imperative to the ability of a community to move toward a more localized food system. Areas that are under less pressure from urban expansion will be more likely to preserve and/or develop a localized food system; this is especially the case if land is already in short supply. Both Lethbridge and Waterloo have these assets, which in Nelson are in short supply. Exploring the potential to expand greenhouse development however is another opportunity that exists for farmers to produce more local food, over an extended season, as was mentioned in Lethbridge, but could also apply to Nelson and Waterloo.

Not only is an agricultural land base needed, but so too is a diverse agricultural sector. As sources noted, even though an areas farming sector may not be diverse currently, if enough consumers demand local food, the farmers may follow the market and gradually become more diversified to fill this market. In other words, farmers will follow what the market demands. Areas that already have preserved diversified small farms, however, offer an advantage in the progress to a more local food system, since they have more products to offer consumers right away. All three communities felt that they have ample diversity of products in their region. Nelson and Waterloo have the benefit of smaller diversified farms, whereas Lethbridge has abundant land and growing conditions for a number of commodities. In Nelson, however, the challenges to animal production and limited land resources for grain production make it difficult to fulfill the same diversity (in terms of the different food groups) as in Waterloo or Lethbridge. A localized food system in Nelson therefore may require a larger geographical radius in terms of defining what is considered local.

Some areas also have assets that may not necessarily be required in other areas to be able to grow certain crops. For example, irrigation potential offers a huge opportunity to grow a wide range of crops in Southern Alberta, which would not otherwise be possible. This would not be such an asset in Waterloo or Nelson since climatically they receive plenty of rainfall already.

Encouraging and facilitating farmer innovation is another means of increasing an area's agricultural capacity. Many key informants and farmers interviewed in both Lethbridge and Waterloo felt that farmers would follow the market and sell where they can make the most money. Farmers, however, said they would prefer to sell locally but if they cannot make a living

doing it they will seek out other markets⁵⁸. Therefore developing farmer innovation is important to permit farmers to gain a larger share of the food dollar. Supporting small farm ventures in developing niche markets and value-added processing through extension work and reassessment of regulatory barriers is crucial if this is to happen. Other ideas of expanding greenhouse development and berry production, as well as exploring the potential for non-traditional commodities were mentioned in Lethbridge. Involving the immigrant community more in agricultural production may be another way to stimulate new ideas in agriculture and/or the development of new commodities in the region. Some key informants in Lethbridge felt that this could be explored since new farmers are needed to replace retiring farmers. Although agricultural innovation in Nelson is already fairly high, the idea of CSAs was also brought up as a potential area to be expanded.

The financial payback many farmers of this study claim they receive by direct marketing their products, may be an additional motivation for other farmers to direct market. Nonetheless, this pay back is still not as much as farmers need to be able to earn to make a decent standard of living. Farmers direct marketing however, feel they are better off than other farmers using traditional marketing methods.

Key informants in Waterloo said that the timing for local food developments is good now since farmers are ready and willing to change. Not only are they ready for change but most prefer to sell their product locally if there is a market. This, in addition to examples of successful value-added farm businesses, provides examples for other farmers to follow in their footsteps, and can help move agriculture in new directions. The success of these factors is best illustrated through the development of the Produce Auction in Waterloo as a result of financial hardship from the BSE crisis. Farmers there began to diversify in the face of crisis and shift toward vegetables, in an effort to make up for the losses they experienced from the drop in beef prices.

⁵⁸ In Nelson, this was less the case, as the idea of ‘feeding your neighbours first’ is the dominant farming philosophy.

6.3 Infrastructure

Table 8. Infrastructural opportunities to the development of a more local food system are listed as to whether they are existing, or have potential for development, in the communities in which they apply.

Opportunity	Existing, Expanded, or Potential Opportunity	Community
<i>Infrastructure</i>		
Processors Nearby	Existing	Lethbridge, Waterloo
	Potential	Nelson
On-Farm Value-Added Processing	Existing	Lethbridge, Waterloo
	Potential	Nelson
Dual Functioning Incubator Kitchens	Potential	Lethbridge, Nelson, Waterloo
Transportation Corridors	Existing	Lethbridge, Waterloo

Infrastructure is also essential to the development of a more localized food system. While infrastructure can be a huge barrier for those communities who lack it, it can be an asset to others that do not.

Having processors nearby, especially microprocessors is an asset for communities. Microprocessors provide access for small-scale producers and are geared to producing primarily for the local market (eg. Silverking Tofu in Nelson and Oak Mannor Farms in Waterloo). This was particularly mentioned in Waterloo⁵⁹. Greater allowances for on-farm value-added processing would help rebuild some of this lost infrastructure. This would also empower farmers to become more than just growers and enable them to recoup more of the food dollar.

In Nelson, what is a barrier for farmers in shipping out of the region is also an opportunity, forcing most farmers to sell locally. Since there is a fairly strong market for local foods this leaves even less incentive for farmers to export out of the region. This however could be perceived as a disadvantage in that it may deter smaller processors from locating in the region since it isolates the potential market to only the very local.

⁵⁹ This was not mentioned in Lethbridge but it does exist here to a certain extent.

Another opportunity that was brought up in Waterloo, but could be equally applied to other communities, is having access to, or starting up, incubator kitchens. This would enable small-scale processors to avoid the up front capital costs of building and insuring a commercial kitchen facility of their own. Incubator kitchens can provide technical assistance in food production, business management skills, and networking opportunities among microprocessors. These kitchens could be commercial kitchens in the area that are vacant for parts of the season, eg. university/college campuses. This could help overcome some of the barriers faced by microprocessors and allow farmers to do more value-added processing.

6.4 Government & Community Support/Involvement

Table 9. Opportunities with government and community involvement to the development of a more local food system. Each opportunity is listed as existing or potential for the community in which it applies.

Opportunity	Existing or Potential Opportunity	Community
<i>Government & Community Support/Involvement</i>		
Initial Research and Promotion	Existing	Lethbridge, Nelson, Waterloo
Stakeholder Involvement	Existing	Lethbridge, Waterloo
	Potential	Nelson
Municipal/Regional Support/Leadership	Existing	Waterloo, Lethbridge
	Potential	Nelson
Planning By-Law/Zoning Reformation	Potential	Nelson, Waterloo
Funds Available to Farmers/Community Groups	Existing	Lethbridge, Nelson, Waterloo
Agrifood Policy	Existing	Nelson
	Potential	Lethbridge, Waterloo
Local Food Policy	Potential	Nelson, Waterloo
Leaders who will Source Locally in Community	Potential	Nelson, Waterloo

Government and community support is also vital to the success of any movements to localize the food system. The success of a local food system requires dedicated people in positions of power to take up the cause (as was attributed to the success of Waterloo's initiatives). Having a champion organization to do the needed research and bring the stakeholders together is an important asset in moving the local food agenda forward, as all communities have realized and at least partially begun.

In the three communities in this study, each had at least begun the initial research needed to promote local foods. Involving all the stakeholders (eg. farmers, food processors, distributors, food purchasers, and retail outlets) in this process is also important, as it allows for the challenges facing the various sectors to be understood and overcome.

Having municipal/regional support for the initiatives that come out of this research is also imperative if any policy changes are to come about⁶⁰. In Waterloo and Lethbridge, the research is largely coming from the government (eg. Region of Waterloo Public Health initiatives in Waterloo and SouthGrow initiatives in Lethbridge), whereas in Nelson it is from the community (eg. Kootenay Food Strategy Society and Nelson Food Coalition).

Some movement on reforming planning by-laws and policies to include our agricultural communities is also an important step that Waterloo Region has already started to make. Opportunities exist for urban planners to become more involved in the issues affecting rural communities, and to incorporate food access and local food availability into urban design. In conjunction, having local agricultural committees or councils represent agricultural interests in local policy and by-law formation may also assist these efforts. Planning by-laws designed to protect farmland when implemented without consultation with the needs of farming communities can be just as harmful as what planners were trying to prevent in the first place. For example, by-laws in Waterloo prohibit selling goods produced off your farm at your farm-gate; this prevents industry from spreading to the countryside, but also inhibits farmers from running roadside stands which provide them with additional income.

⁶⁰ This could be in the form of local government leadership or of their support for community groups working in this area.

Funding available for entrepreneurial farm ventures, as well as business planning coaching, in Lethbridge and Waterloo⁶¹ is also a positive opportunity to build upon. Funding can help overcome some of the hurdles associated with starting a new venture and provide incentive to move into different paths of production (despite the risks that may otherwise scare farmers and microprocessors away).

In Nelson, the Columbia Basin Trust provides opportunities for funding to community groups working on agrifood issues, and potentially to farmers through their Basin Business Advocates Program. This program provides free one-on-one business counseling to small businesses in the Columbia Basin. Potential sources of funding could be explored in other regions as well to provide added support for local action.

Policy to go along with these funds makes it even easier for farmers to move in this direction. Follow through on agri-food policy will likely reside outside the community, at the provincial or federal level, but could have important ramifications at the community level in the relocation process. Policy changes, or an allotment of funds from the federal and provincial levels of government, also provide opportunities to support initiatives at the community-level. Legislation such as the Agricultural Land Reserve Act in B.C. protects agricultural land from development and could be a model for other provinces to consider⁶². Policy that is more conducive to value-added production at the farm gate was also a key idea that surfaced in Waterloo. In Lethbridge, the idea of policy that recognizes the local market as a legitimate market was mentioned as a means to garnering more buy-in by the various stakeholders.

Developing a local food policy for the region or by individual businesses and institutions is another important opportunity that could provide more incentives for farmers to direct market and add value to their products; as was revealed in Waterloo and Nelson. This would create more local markets to be filled solely by local producers⁶³. Alternatively, on a voluntary basis, the idea of a 'Green Star Program' emerged in Nelson. This system would provide recognition to community leaders (eg. institutions, businesses, retail, or restaurants) who source from local farmers.

⁶¹ In Lethbridge funds are available provincially through AVAC Agri-Value Program and in Waterloo through Wellington-Waterloo Community Futures Development Corporation.

⁶² If properly enforced.

⁶³ This however may be more difficult since it will take more political will and perseverance than any voluntary initiatives.

Without a local food policy, having leaders in the community that will source locally is also important in building demand and providing an example for others to follow. The idea of institutions being potential community leaders and leading this initiative was brought up in Waterloo.

6.5 Local Markets

Table 10. Opportunities around local markets in the development of a more local food system. Each opportunity is listed as existing or potential for the community in which it applies.

Opportunity	Existing or Potential Opportunity	Community
<i>Local Market(s)</i>		
Opportunities with Farmers' Markets	Existing	Lethbridge, Nelson, Waterloo
Developing Numerous Distribution Channels	Existing	Nelson, Waterloo
	Potential	Lethbridge
Targeting Restaurants	Potential	Lethbridge, Nelson, Waterloo
Farmer Marketing Cooperatives	Existing	Waterloo
	Potential	Lethbridge, Nelson
Small Retail Marketing Potential	Existing	Lethbridge, Nelson, Waterloo
CSA Cooperatives	Existing	Waterloo
	Potential	Nelson, Lethbridge
Growing interest/awareness of buying local by retail and restaurants	Existing	Nelson, Waterloo
	Potential	Lethbridge
Large Retail Markets Accessible to Local Farmers	Existing	Lethbridge, Nelson
	Potential	Waterloo
Alternative Markets Developed/Expanded	Existing	Lethbridge, Nelson, Waterloo
Institutional/Business Linkages	Potential	Lethbridge, Nelson, Waterloo

Developing local markets for locally grown products is also required to move the local food agenda forward. Many opportunities also exist in developing these markets at the community level. Such assets may include having a significant population to market to, and numerous channels and small retail stores to market local product through. Developing farmer marketing cooperatives, on-farm stores, and connecting farms with businesses, however, are more tangible opportunities that communities may be able to achieve.

Particular interest was given to developing and/or expanding farmers' markets in all three locations⁶⁴. The recent expansion of farmers' markets was seen as an opportunity for attracting more consumers. In Nelson, attracting more farmers to the farmers' market was seen as an opportunity to get more local food in the hands of the consumer. Waterloo, on the other hand, has renowned farmers' markets that attract a variety of vendors and function year round. The issue in Waterloo is confusion between farmers and the many vendors who resell non-local produce. Mandating 'you make, you bake, you grow' markets may be one way of attracting more farmers to use this channel⁶⁵.

Having year-round and easily accessible farmers' markets (that restrict or outlaw food resellers) is also an opportunity to draw out more farmers and consumers alike, and to increase the market and awareness of local foods. The idea of mobile farmers' markets was also a chosen focus of Public Health's work on localizing the food system in Waterloo. This would offer a convenient means for consumers to purchase local foods in their community. In Lethbridge, the recent expansion of the farmers' market to include a downtown location is also seen as an opportunity in the promotion of locally produced foods.

Farmers have emphasized that they are willing to explore and provide for anyone or anywhere there is a market. Farmers will therefore follow market forces in deciding what and for whom they want to grow. However, having numerous channels farmers can market through is instrumental in developing a more localized food system, since different farmers have different needs and preferences for marketing styles. Having access to retail (large and small), restaurant, and institutional markets provide a large potential market for farmers' to sell through.

⁶⁴ This may be slightly over reported due to the inclusion of farmers' market managers in case study interviews.

⁶⁵ Farmers' Markets Ontario is currently trialing the idea of certified farmer-only markets at a few select markets in the province, with the idea of potentially offering it to all markets in the province if successful.

Targeting restaurants was an idea shared in all case study locations. They are major food purchasers and exist as potential markets for farmers to supply. Marketing to high-end restaurants is an opportunity many farmers have already explored with mixed success; however this is quite limited to the type of community one's in, as well as the number of restaurants that could participate.

Other ideas surfaced around starting more farmer cooperatives for the marketing of local product. In Waterloo, farmers have already started down this path with the Elmira Produce Auction. In Lethbridge, a similar idea has been explored with the Hutterite Colonies, although with little success⁶⁶. This idea has also been proposed in Nelson but appears to be still in the conceptual phase. Cooperatives allow small farmers with lower volumes to be able to market their products to places that require large consistent volumes, i.e. retail, restaurant, and institutions. Developing cooperative CSAs⁶⁷ was cited in Waterloo as a means of easing the burden placed on farmers to marketing their product as well.

Opportunities may already exist with smaller stores that have more independence in purchasing decisions. Larger stores are interested but do not see any opportunity because of ingrained barriers (eg. head office needing to make purchasing decisions). However, with available local supply at cost-competitive price, small-medium stores see opportunities to sell more local. Conversely, since quality is important to consumers, stores may be willing to pay a bit more for local if this means a higher quality product⁶⁸. There was also interest from smaller stores on the idea of a local label and the idea of profiling local farmers or local foods in their stores. In Nelson, a large retail cooperative is the main outlet for much of the local produce, given that part of their mandate is to support local farmers. Other communities could replicate this idea; by doing this it could provide convenient outlets for both consumers and local producers.

As was mentioned in Lethbridge and Waterloo, expanding the number of on-farm stores/cafes, as well enhancing agri-tourism, offer further opportunities. While there may be zoning issues

⁶⁶ Someone outside the colony started this, and it could be the lack of trust in the relationship that was the issue leading to its demise. Having the colonies work together on their own terms may lead to more success.

⁶⁷ Farmers produce is collectively gathered and distributed by certain farmers in the group, or may be hired out to third party.

⁶⁸ This is already happening to a certain extent in Nelson.

around this, looking to bring people out into the country to meet their producer is another important tool that could be developed; especially with more people looking for an experience and/or story behind their food.

Making connections between farmers and businesses, or institutions, was also cited as a way to increase local marketing opportunities in all case study locations. Developing connections with institutions, which purchase large amounts of food, was highlighted in Waterloo and Nelson. This would create a boost in demand of local food, and provide an example for other businesses and institutions to follow. In Lethbridge, on the other hand, the emphasis was more on farmer’s marketing products through local businesses⁶⁹; people place orders for product at their workplace and farmers could have a central drop-off point. This system could overcome the time-barriers and unstable pay some farmers experience with other forms of direct marketing.

These local marketing opportunities present immediate possibilities to develop local markets, especially in the direct marketing of local foods. Working through third party retailers, restaurants, and institutions, may take longer for change to happen, but with farmer cooperatives this may allow small farmers the opportunity to meet the needs of these markets.

6.6 Culture

Table 11. Cultural opportunities to the development of a more local food system are listed as to whether they are existing, or have potential for development, in the communities in which they apply.

Opportunity	Existing or Potential Opportunity	Community
<i>Culture</i>		
Connection to Rural Community	Existing	Lethbridge, Waterloo
Values of People	Existing	Nelson
Immigration	Existing	Waterloo

Local culture is something that can also be advantageous to the development of more localized food systems, particularly in creating acceptance and buy-in from consumers. Local culture

⁶⁹ Sort of a cross between a CSA and a farmers’ market.

however is difficult and slow to change, therefore if the culture is not supportive of local development it can end up being more of a barrier than an opportunity.

Lethbridge and Waterloo, however, are fortunate to have a significant agricultural base and a fairly strong connection to their rural heritage. These factors have led to the success of campaigns for Alberta Beef after BSE hit in Lethbridge, and in Waterloo, to the success of the farmers' markets. Despite these connections, the push for local food in mainstream markets has made little progress, due to the barriers of large retailers to sourcing from small producers. The connections with agriculture and the rural roots that people in these two communities still carry, represent further opportunities to tying in the benefits our rural communities receive by buying locally.

Nelson is fortunate to have many of the values in terms of supporting local development and quality food, which despite having a fairly insignificant agricultural base, have aided it in making local products available even in large retail outlets⁷⁰. Nelson is also fortunate enough to have many socially minded citizens with a strong belief in local development. Many of the citizens here also have a strong interest in health, fitness, and the environment that also ties in well with supporting farm-fresh local food.

In Waterloo, it was also felt that their ethnically diverse population, with many new immigrants to Canada, is also an asset to them. Compared to generational Canadians who are believed to have lost most cooking skills, this group continues to cook using raw ingredients, and are predisposed to shopping at local markets.

⁷⁰ There is however debate about how local these products are since many of them have to travel to and from a head office distributor before they arrive on store shelves.

6.7 Consumer & Societal Trends

Table 12. Consumer and Societal trends that may facilitate the development of a more local food system are listed as to whether they are existing, or have potential for development, in the communities in which they apply.

Opportunity	Existing or Potential Opportunity	Community
<i>Consumer Trends</i>		
Making Connections Between Food and Health	Existing	Lethbridge, Nelson, Waterloo
Consumer Interest in a Local Label	Existing	Lethbridge, Nelson, Waterloo
Consumers Want to Support Local Farmers	Existing	Lethbridge, Nelson, Waterloo
Growing Demand for Quality	Existing	Lethbridge, Nelson, Waterloo
Rising Energy Costs	Potential	Lethbridge, Nelson, Waterloo
Climate Change	Potential	Lethbridge, Nelson, Waterloo
Obesity Crisis	Potential	Lethbridge, Nelson, Waterloo

There are many growing consumer trends in the market presently that offer support for the movement to a more localized food system. Consumers, for example, are increasingly making the connection between food and health; paying more attention to how they eat in an effort to be healthier (Babcock, 2006; Soots, 2003). The belief that local food is fresher and healthier is also evident (Babcock, 2006; Feagan, et al., 2004; RWPH, 2005a). People also want to know where their food comes from and how it was produced (Feagan et al., 2004; Lapping, 2004). These growing consumer trends all offer opportunities to develop a greater understanding between producers and consumers in promoting local foods.

The findings of this study showed that there is an interest in a local label and a willingness to pay more for local products⁷¹. With the current dissatisfaction in the quality of food available,

⁷¹ However, there is evidence as well that what consumers say and do is not necessarily the same and that when it comes time to choose at the supermarket shelf, price is what sells not where it was produced (Babcock, 2006).

developing a local label may be one way to help people in Waterloo and Nelson (who already frequently look for local foods) identify local products, and in Lethbridge build awareness of the locally-grown products available.

One of the main reasons consumers cited for choosing to buy local produce was to support local farmers⁷². The fact that consumers see this as a benefit of buying local products shows that there is an understanding of the connection between food purchasing habits and the local economy. This remains an important point that could reinforce the success of local food initiatives.

The trend towards ‘quality foods’ is also growing. This can be seen by the presence of many ‘niche’ marketers, particularly organics or naturally raised products, at the farmers’ market in all three locations. Nevertheless, in Lethbridge the Hutterites have been the only ones that have really been able to break into mainstream markets with any success, largely because of their larger volumes and cheaper cost of production. This trend is also supported by the strong interest in product quality and dissatisfaction with the quality of produce available in stores as was illustrated in the consumer survey.

There are also larger societal trends that may pose opportunities to local food system development. Rising energy costs, although not having had much of an impact so far, offer the prospect of making local food more cost competitive in the market place. As some of the true costs of imported food begin to be paid⁷³, local farmers may have an increased opportunity to enter into markets currently closed to them, by being able to offer a more competitive product. This is reiterated by the fact that many participants of this study (particularly in Nelson) stated that a localized food system would only really be feasible if the true cost of food is seen or paid, and additionally, if people were willing to pay more for their food. This may have to wait for current economic systems to account for rises in shipping costs, and for climate change and Kyoto Protocol implications to become more pressing priorities for national and international governmental affairs. However, the concern over food miles in Nelson may be one motivator for consumers there to choose and start demanding local products. Nevertheless, the recent climate change media coverage in Canada may offer solace to this effort for other parts of the country.

⁷² This finding has also been validated by other studies (Babcock, 2006; Feagan et al., 2007)

⁷³ The true cost of food accounts for the hidden costs associated with climate change, aquifer drainage, habitat destruction, soil erosion, and water pollution that result from industrial agricultural practices.

Additionally, the rising obesity crisis offers another opportunity for the development of local food economies, as was brought up in Waterloo. This crisis has so far resulted in more resources being put towards promoting healthy eating campaigns, as well as more consumers trying to make healthy food choices. This crisis has also given credibility for public health to work on building local food systems, and has stimulated research on food environments. This may also be a precursor to evaluating our current agricultural system, and how localizing the food system may play into a more healthy food environment.

Overall consumer and societal trends are turning in favour of what a localized food system may have to offer. Building on these trends with educational and marketing campaigns to push the fresh, healthy aspects of local, in addition to connecting the actions of buying locally to supporting local growers and reducing food miles, all offer prospects in localizing the food system. Although more indirect influences on communities, consumer and societal trends, may offer the most profound stimulus for a change towards relocalization.

6.8 Chapter Summary

Despite the barriers to the development of local food systems as outlined in the previous chapter, many opportunities still exist that communities can explore in moving the local food agenda forward, as this chapter outlined. Some of these communities are further ahead than others, and some have opportunities available to them that others may never have (eg. cultural values and/or an available land base). In spite of this, it is not required that communities have available to them all the opportunities that were discussed in this chapter to be able to succeed. Instead, opportunities lie in using the assets a community already has to work to its advantage. Lethbridge has the processors, resources (land, water, sunlight), and strong agricultural sector working for it. Nelson has an interested populace, community groups working on the issue, and ample marketing venues for producers. Waterloo has plenty of products, vendors, and farmers' markets, in addition to a champion that has taken up the cause (i.e. Region of Waterloo Public Health). Building upon these assets and learning from other communities is where opportunities lie.

Opportunities exist in all areas. Specifically, in terms of education and awareness, developing agricultural capacity and local markets, infrastructure, government/community involvement, developing/expanding local markets, cultural assets, and larger consumer and societal trends.

Educational and awareness campaigns provide opportunities by augmenting consumer trends in healthier eating and their desire to support local farmers. Government and community support, however, are imperative to being able to realize the potential opportunities that exist around developing local infrastructure and markets. Many of these initiatives will require changes to local policy, as well as institutional, retail, and restaurant buying patterns. Therefore, networking among the various stakeholders in the food system will be needed to develop the necessary linkages to move forward on these suggestions. This idea is similar to what has already been started in Waterloo, and discussed in Nelson and Lethbridge.

Developing the agricultural capacity of the community is also required to the extent that policy and regulations can have an influence on local food availability. While some aspects of an areas agricultural capacity are fixed (eg. amount of land and available farmers) others can be developed through the use of incentive programs or grants to entrepreneurial farmers, and land use policy that protects local growers and preserves existing farmland.

Societal trends will eventually lead to changes in local culture, but both are very difficult and slow to change. Together, however, they are important instruments, and deemed by some to possibly be the only salvation from the current global corporate food system. With the growing interest and demand in local products, as well as people's interest in supporting local farmers and the local economy, this however may just be a feasible pursuit.

Chapter 7

Conclusions

As is noted in the agro-food studies literature, it is true that local food systems do not always lead to environmental and social justice. Many farms selling locally in this study were not using organic or ecological farming techniques, and some were even using migrant labour. Although the production methods themselves may not necessarily be any more environmentally or socially sound, these farms were more diversified in their markets and crops, and did feel that they are doing better financially than their exporting counterparts⁷⁴. The move toward a local food system does however prevent many unnecessary food miles, which contribute to global climate change. Additionally, local food systems focus on place does prevent some of the larger social issues that exist with the sustainable agricultural movement. This is the case since its focus on place prevents food from being commodified outside of the community itself. The local also allows for the discrepancies in income between rural and urban communities, as well as the needs of rural communities to be addressed.

There was recognition by key informants in all regions that regional boundaries are somewhat artificial in developing local food systems (as was also noted in the bioregional literature). However, most regions continue to work within this political and economic mandate. In Lethbridge the grouping of counties to form SouthGrow Regional Alliance, although still following economic reasoning, provides evidence that the region is not necessarily the best means or most effective way to relocalizing the food system⁷⁵.

The reflexive definitions of local that emerged from this study provide support for the idea that localism exists along a continuum. Varying degrees of localism exist along a sliding scale with complete self-reliance on one side and complete dependency on imports on the other. This is also illustrated in this study by the degree to which each of the barriers and opportunities can also be placed along a continuum. Although each issue can be classified as community-specific or universal, gray area exists between them. The local is therefore ultimately connected to the global, where issues at the top will filter down to the bottom, just as changes at the bottom can

⁷⁴ However, these farmers still continue to struggle to make ends meet.

⁷⁵ This is because it can pit region against region in attracting investment, and potentially isolate farmers from prospective markets.

filter back to the top. Part of making localism work then is making it flexible to the global reality we live in.

The barriers to the development of local food systems revealed in this study revolve around: consumer buy-in, policy and regulations, infrastructure, retail, as well as farmer and agricultural capacity. These findings confirm the results of Soots (2003), which noted many of the same barriers when speaking to farmers in Waterloo Region. The opportunities to the development of localized food systems in this study are also similar to, but slightly more extensive to Soots' conclusions; this is likely a result of the dynamics of the different communities included in this study. The opportunities noted revolved around themes similar to the barriers: education/awareness, agricultural capacity, infrastructure, government & community support/involvement, local market(s), culture, and consumer and societal opportunities. Most of the barriers and opportunities are universal. But the opportunities, although universal in their applicability, are largely determined by the internal dynamics of the community, as well as physical geography, in terms of how successful or not they may be at creating change.

The barriers and opportunities are interchangeable depending on the dynamics of the community, and the extent to which they can exert local control over issues. Some communities are set apart from others because they have certain features/characteristics that are needed to make a local food system work; however, other communities may lack these same features but have other characteristics, which are equally important to build upon. Overcoming policy and regulatory barriers would provide vast potential at the community level to move toward more localized food systems. Surmounting these barriers would give small producers the chance to keep more of the food dollar at the farm-gate, and allow farmers to explore value-added markets. Although these barriers may be difficult and slow to overcome, they offer the largest potential to move toward a more localized food system in Canada.

At the local level, building on consumer education/awareness is the most feasible opportunity without larger changes to policy and regulations. Bringing together the stakeholders of the local food system can also create momentum for action and allow the community to develop an understanding of the needs and interests of the various stakeholders. This may also be a means of connecting farmers with potential markets, in problem solving for how best to develop agricultural capacity, and in filling gaps in processing and infrastructural needs. Bringing together the stakeholders of the food system can also provide the intellectual and social space,

which may create further gains of political and economic space for further action as Feenstra (2002) promotes. This can also ensure the process is democratic and not dominated by any one interest.

Developing the local capacity will be the ‘low hanging fruit’, but again, keeping pressure for larger external changes should never be out of sight. As Allen (2004), points out, without this larger consciousness the neoliberal values that prevail will continue to corrupt alternative movements and create disparities within society. My study supports this need to continue working at the local level while also working at higher levels if any long-term change is to be achieved.

The literature suggests that strong alternative food movements challenge the current food system, whereas weaker movements focus on niche markets and quality products. The fear is that, by relying on quality and niche products alone, the ideas behind the movement can be co-opted by external motivations. However, by attaching these ideas to a place-based label, external interests would have difficulty hijacking the ideals behind the label. This is exemplified by larger processors showing disinterest in a local label in a feasibility study conducted in Lethbridge, and conversely by the success of initiatives such as FoodLand Ontario.

This study supports findings in the literature that consumers prefer quality over price. However, it contradicted the literature in that price does seem to be a barrier to institutions participating in a localized food system. Although they have an understanding of the importance of local food (as was noted by institutional representatives during stakeholder consultations in Waterloo) their tight budgets and pressure for public accountability make it difficult to justify the increased cost of purchasing local.

Additionally, other research has emphasized that the adoption of local produce in supermarkets can undermine the capacity of local food to empower the local economy. This is because it fails to thwart corporate influence and build connections between rural and urban communities. My research has validated this finding to a certain extent, because to supply large retail stores, farms have to be able to provide local distributors. To do this their product can still be transported a significant distance before finally reaching the consumer. If selling to local large retail outlets, farms also need large volumes and consistent supply; only with small stores can farms remain small and diversified. However, because of the time barriers some farmers face with direct

marketing, as well as the convenience factor of the consumer, selling through retail may be the best opportunity to make substantial gains in localizing the food system.

I would argue none of these communities have a protectionist mentality, as was cited as a potential downfall of localism in the literature (DuPuis & Goodman, 2005). The case studies illustrate this through their reflexive definition of local. The definition of local that emerged although varied between and within communities was reflexive in origin, recognizing the importance of trade in meeting all our food needs and desires, as well as the importance of greater self-reliance in preserving farmers, farmland and reducing food miles.

The definitions of local vary, following many of the ideas of local that have also emerged from the literature such as personal relationship building (Hinrichs, 2003), as well as spatial boundaries (eg. county's or surrounding county's) (Guptill & Wilkins 2002), freshness (Guptill & Wilkins, 2002), and eating as close to home as possible (Hinrichs, 2003). The idea of expanding boundaries in determining what is and is not local also followed Hinrichs' (2003) diversity-receptive definition, recognizing that not all of what we consume can be grown here given the food preferences of today.

The key to making a local food system work remained the same in all three locations, involving and educating the local stakeholders of the food system, a commitment from government and building up general community awareness/education. The three regions, however, are at different stages with different consumer audiences. The local movement in engaging the stakeholders to move on a local food policy was noted as an important next step in Nelson. In Waterloo, this has been done but moving forward on the recommendations by the stakeholders is their next step. Lethbridge sees building community awareness and continuing the fight for legitimate government support for small producers through policy as their next priority.

Each of the communities has a group working on localization efforts; however, again they are all at different stages in the process. For example, Lethbridge is at the research stage, Waterloo is actively engaging stakeholders and working on social marketing initiatives, and Nelson is in the beginnings of engaging stakeholders however with already strong existing grassroots initiatives. How to go about facilitating a more localized food economy is also quite unique between communities. This may illustrate that despite differences, communities still exert some power at the local level to move toward a localized food system. Nevertheless, sharing information and

strategies between these organizations and other communities may expand opportunities to strengthen the initiatives already underway.

For the consumers, they must be further educated as to the significance of their food choices and encouraged to see the values associated with local food. Also, ensuring that local food is accessible and visible is another important priority in garnering consumer buy-in.

In moving forward then, educational campaigns will be an important component in informing people about the current crisis of our food system. This has to occur first so that a market for local products is established. It will have to start with consumers since farmers are generally market followers. This will likely be a step-by-step process whereby demand will grow slowly, and slowly more farmers will come on board. It is important too that there are numerous routes through which farmers can market their product since different types of marketing have different advantages and disadvantages to both the consumer and the producer.

For the farmers it is important that they are provided with the support they need financially and educationally to explore and capitalize on alternative local markets. It is also essential that these initiatives be backed up through local and national policy. This will hopefully help with some of the risk aversion farmers currently face in exploring non-conventional marketing.

The literature has suggested that focusing on direct marketing is a key to building strong alternative food networks. Although farmers appreciated some of the benefits of direct marketing, realistically, issues of consumer convenience and farmer time-constraints surfaced that would make direct marketing on a large-scale difficult to achieve in reality. How realistic a model this would be on a large scale is therefore questionable. It appears best to have a diversity of markets for farmers and consumers to choose from.

It is also important for farmers to work together and share their knowledge, experiences, and resources. Cooperative ventures may be the only hope of competing against large-scale subsidized production in other countries, or from countries with lower costs of production. Farmers working together to start 'Farm Direct Stores', or retail cooperatives like the Kootenay Coop, in the city that are farmer owned and/or supplied, may be one option to overcome the time barriers other forms of direct-marketing entail. This may also be one way of reducing the variability of pay associated with farmers' markets for example.

For a local food system to be truly sustainable it will require a mixture of small retail, direct-marketing, and farmer cooperatives. However, until more awareness around the importance of local foods and subsequent demand is created, developing local markets will likely not succeed on their own.

As for retail, many of these issues with purchasing local food will only be worked out if and when considerable demand for local is a priority for consumers. This research is consistent with the literature that there is more room and receptivity for small retailers to pair with farmers. However, initiatives such as the Elmira Produce Auction may have more capacity to localize the food system than connecting farmers to the few small retailers that remain in most municipalities. Ideas such as the Produce Auction will allow small farmers to break into bigger retail outlets that provide a larger share of the food to consumers in an area. This may also help solve some of the issues associated with the storage and delivery of products to retail outlets. Cooperation in less formal terms by working together to deliver product and share equipment may provide other avenues for small farmers to explore.

With regard to government's involvement, my findings follow Hines' (2000), in that localization requires government provision of policy and an economic framework, which nurtures locally owned businesses. Without government support, changes from the grassroots will continue to struggle to make strides in becoming less dependent on food imports.

For local governments it will be important to try to revive microprocessors (part of this may be achieved through the reassessment of health and safety regulations). It is also essential for them to implement sustainable urban design and land use policies that work with rural communities to ensure the preservation of farmland and farm industry. Mimicking B.C.'s Agricultural Land Reserves (if enforced), or providing price/tax incentives for land to remain agriculturally productive, may offer other solutions to this problem. Working with higher levels of government will be imperative for this to succeed.

Currently provincial and federal agricultural policy is *not* conducive to a local food system. Existing land use policy and food safety regulations at the local level, and farm supports at the

federal level favor large-scale farms and processing of food *not* small family farms⁷⁶. Reassessing local land use policy and how this may or may not influence local food and agriculture is also vital, not only in preserving farmland, but also in facilitating farmer ingenuity.

Higher level policy and regulation issues can only really be challenged through communities exercising their right to vote, and through lobbying governments for change. Small farmers and local markets must be considered first before agreeing to further trade concessions by our federal government. Regulations regarding food safety also need to be reevaluated for their applicability to small-scale food processors. The interests of small-scale food processors need to be heard and incorporated into the current regulatory framework. Programs to encourage and provide incentives for young farmers to stay on the farm and for those raised off the farm to consider agriculture as a viable career opportunity are also necessary. Some of these ideas could happen at the community level, but would likely result in further gains by addressing them at the provincial and national Ministries of Agriculture.

At both a higher and lower level there also need to be changes to the focus of agriculture, specifically how it influences government ministries outside of the Ministry of Agriculture. Agriculture has become disconnected from the food it produces. This influences what and how we grow our crops, and ultimately our health and the environment.

It is important to take notice of these higher-level issues and their role in the type of food systems that are promoted. Pushing for changes at higher levels of government needs to happen simultaneously as changes at the local level for any effective and long-term local food economy to survive. More cooperation on this issue between regional and provincial governments will be required. Once cooperation begins to unfold, communities can then move forward on some of the issues that exist external to their control. This does not mean that the internal barriers that occur at the community-level cannot be addressed without support from above. Rather, it means that these issues are likely the easiest to deal with since the community can begin to attend to them without external support. Addressing the barriers at the local level however will only get communities so far without support from above.

⁷⁶ Because convenience is an issue it is important for the government to take some responsibility in solving this issue since it is too much work for most consumers to undertake on their own.

Overall, the barriers and opportunities raised in this thesis suggest that a localized food system would be feasible in Canada with consumer buy-in and government support for localization efforts. Both the barriers and opportunities are for the most part universal, however, while the barriers need to be addressed at provincial and federal levels of government, many opportunities for immediate action still exist at the local level.

7.1 Recommendations for Future Research

In uncovering the barriers and opportunities to more localized food systems in Canada, many other areas of potential inquiry were also discovered. More research is needed to determine the actual feasibility of some of the opportunities and how they may play out. Examples include:

- how an effective means of influencing higher level policy might play out
- how health and safety measures may be able to both protect consumers and small producers
- what the most effective educational strategies might be to raise awareness of the importance of local food
- what effective models of cooperative marketing and processing ventures for farmers may look like, and,
- how effective local branding strategies may be and at what level they should operate.

In terms of the barriers to a more localized food system, more research is also needed to determine:

- how to make local food more accessible to the broader public
- how to overcome the financial barriers indebted farmers face when transitioning into new markets
- how to recruit new farmers when it is not a lucrative occupation, and,
- how to get people to pay the true cost of food when cheaper alternatives proliferate.

Broader research is also needed to elaborate on how local food systems might play into broader environmental and health concerns and policy – eg. in terms of Kyoto commitments, energy crises, and the obesity epidemic, how proposed WTO subsidy reductions in industrialized countries might affect the Canadian agricultural sector, how the barriers and opportunities in Canada compare to communities globally, and more specifically, what lessons can be learned from developing countries that traditionally have strong local food systems. More information on exactly how communities may go about coming to a consensus as to what local means to them when considering the diversity of perspectives at the table is another area of important investigation.

These areas of inquiry will help to strengthen the local food movement in Canada, by providing insight into how the various barriers to localization may be overcome. Some of these areas of inquiry will help move the local food agenda forward at the local level, while others at the provincial or federal level. Further areas of inquiry will also determine how local food system development may be able to extend its reach by tying into broader societal concerns and trends.

Appendix A

Community Statistics

Waterloo

*Regional Characteristics*⁷⁷

Population: 438,515

Area: 1,369km²

Land Area in Agricultural Production: 91,378 ha

Municipalities: Cambridge, Kitchener, Waterloo, Wellesley, Wilmot, Woolwich, and
North Dumfries

Largest Centre: Kitchener

Population of Largest Centre: 190,399

Growth Rate of Region: 8.2% over 5 years

Major Industries: Manufacturing and construction industries; Wholesale and retail
trade; Business services; Health and education

Average Earnings: \$33,946

*Demographics*⁷⁸

Ethnic Minorities: 10% of population

Largest Demographic Group: 25-44 years of age

Median Age: 35.3 years of age

Education Levels: 47% college or university degree

*Geography*⁷⁹

Topography: Rolling Moraine

Major Waterways: Grand River

⁷⁷ (Statistics Canada, 2001a; Region of Waterloo, 2006a; Region of Waterloo, 2006b)

⁷⁸ (Statistics Canada, 2001a)

⁷⁹ (Weather Network, 2007a; Natural Resources Canada, 1957; Agriculture and Agri-Food Canada, 2000)

Temperature Ranges: Winter lows -10°C; Summer highs 26°C

Precipitation: 850-1000mm/yr

Climate Anomalies: High humidity

Length of Growing Season: 180-200 days

Plant Hardiness Classification: 5a to 5b

Lethbridge

Regional Characteristics⁸⁰

Population: 77,304

Area: 2975 km²

Land Area in Agricultural Production: 296,865 ha

Municipalities: Barons, Coaldale, Coalhurst, Nobleford, Picture Butte, Lethbridge

Largest Centre: Lethbridge

Population of Largest Centre: 67,374

Growth Rate of Region: ~7% over 5 years (for City of Lethbridge)

Major Industries: Health and education; Manufacturing and construction industries;
Wholesale and retail trade

Average Earnings: \$27,090

Demographics

Ethnic Minorities: 8.3% (including aboriginals)

Largest Demographic Group: 25-44

Median Age: 36.7 years of age (City of Lethbridge)

Education Levels: 21.8% college or university degree

Geography⁸¹

Topography: Rolling Prairie

⁸⁰ (Statistics Canada, 2007d; Statistics Canada, 2007e; Statistics Canada, 2007g)

⁸¹ (Alberta Environment, 2005; Natural Resources Canada, 1957; Agriculture and Agri-Food Canada, 2000; Weather Network, 2007b)

Major Waterway: Oldman River
Temperature Ranges: Winter lows -13°C; Summer highs +26°C
Precipitation: 400-450 mm/year
Climate Anomalies: Chinooks
Length of Growing Season: 180 days
Plant Hardiness Classification: 3b to 4a

Nelson

*Regional Characteristics*⁸²

Population: 58,000
Area: 22,131 km²
Land Area in Agricultural Production: 11,567 ha
Municipalities: Castlegar, Creston, Kaslo, Nakusp, Nelson, New Denver, Salmo, Silverton, and Slocan
Largest Centre: Nelson
Population of Largest Centre: 9,700
Growth Rate of Region: - 1.9% (over 5 yrs)
Major Industries: Health and educational services; Manufacturing and construction industries; Business services
Average Earnings: \$25,582

*Demographics*⁸³

Ethnic Minorities: ~4.8% (including aboriginals)
Largest Demographic Group: 25-44
Median Age: 41.6
Education Levels: 21.2%

⁸² (Central Kootenay Regional District, 2007; Statistics Canada, 2007c; Statistics Canada, 2007f)

⁸³ (Statistics Canada, 2007c)

Geography⁸⁴

Topography: Mountainous

Major Waterway: Kootenay Lake

Temperature Ranges: Winter lows -5°C; Summer highs 26°C

Precipitation: 733mm/year

Climate Anomalies: n/a

Length of Growing Season: 200 days+ in valleys

Plant Hardiness Classification: 2b to 6a

⁸⁴ (Weather Network, 2007c; Province of British Columbia Ministry of Environment, 1980; Natural Resources Canada, 1957; Agriculture and Agri-Food Canada, 2000)

Appendix B

Breakdown of Key Informant Interviews

Roles of the key informants interviewed in each case study location.

Lethbridge	Nelson	Waterloo
Director Southgrow Regional Initiatives	Food System Animist	Waterloo Region Public Health Planner
Alberta Agriculture Irrigation Specialist / SouthGrow Consultant	Nelson Food Coalition	Waterloo Region Public Health Nutritionist
Ex-County Reeve	Farmers' Market Manager	FoodLink Waterloo Region
Farmers' Market Manager	Regional District of Central Kootenays Interior Health	Farmers' Market Manager
New Venture Coach – Alberta Agriculture	Kootenay Food Strategy Society	Waterloo Federation of Agriculture

Appendix C

Breakdown of Farmer Participants by Community

Lethbridge			
Farm Type	Size of Farm	Local Marketing Methods	Production Methods
Mixed Farm	80 acres	Farm Store	Natural
Mixed Farm specializing in vegetables	40 acres	Farm Store	Conventional
Vegetable & Berry Farm	80 acres	Café, Farm Store	Conventional
Fruit and Vegetables	15 acres	Farmers' Market, Farm Direct	Organic
Vegetable Farm	240 acres	Roadside Stands	Conventional
Mixed Farm	50 acres	Agritourism, Farm Store	Conventional
Dairy	80 acres	Farmers' Market, Retail	Organic
Mixed Farm	10,000 acres	Farmers' Market, Farm Direct Sales	Conventional
Mixed Farm	5,000 acres	Farmers' Market, Retail	Conventional

Waterloo			
Farm Type	Size of Farm	Local Marketing Methods	Production Methods
Mixed Mennonite	150 acres	Roadside Stand, Produce Auction	Conventional
Mixed Mennonite	86.4 acres	Cider Mill, Roadside Stand, Produce Auction, Retail	Conventional
Mixed Mennonite Farmer (Fruit & Vegetable Specialty)	100 acres	Roadside Stands, Retail	Conventional
Vegetable & Berries	400 acres	U-Pick, Farm Store, Produce Auction	Conventional
Rancher (Specialty Meats)	75 acres	Farmers' Market, Farm Store, Small Retail Outlets	Natural
Fruit Farm	500+ acres	Retail, Farmers' Market, Produce Auction	Conventional
Mixed Farm	130 acres	CSA, Farm Direct	Organic
Meat Producer	190 acres	Farmers' Market, Restaurants, Farm Direct, Butcher Shops	Natural
Vegetable	Unknown	CSA	Organic

Nelson			
Farm Type	Size of Farm	Local Marketing Methods	Production Methods
Vegetables	37 acres	Retail, Farm Direct, Other Farmers	Organic
Vegetables	6 acres	Farmers' Market, Home Delivery Service	Organic
Vegetables	10 acres	Farmers' Market, Restaurants, Retail, Farm Direct	Organic
Vegetables & Fruit	7 acres	Farmers' Market, Farm Direct	Organic
Vegetables & Fruit	4 acres	Farmers' Market, Home Delivery Service, Restaurants	Conventional/Organic
Vegetables	2.5 acres	Retail, Farm Direct	Organic
Vegetables	1 acre	Retail, Restaurants, Processors	Organic
Vegetables & Fruit	28 acres	Retail, Home Delivery Service, Farm Direct	Organic
Specialty Dairy & Meats	Unknown	Farm Direct	Organic

Appendix D

Consumer Survey Results

1. What is the main factor you look for when purchasing your food? Please rate your answers from most to least important⁸⁵

Taste

Waterloo – 27/30 very important or important

Lethbridge – 30/30

Nelson – 25/30

Convenience

Waterloo - 14/30

Lethbridge – 14/30

Nelson – 10/30

Cost

Waterloo – 17/30

Lethbridge – 18/30

Nelson – 18/30

Healthfulness

Waterloo – 29/30

Lethbridge – 27/30

Nelson – 27/30

Where it was Produced

Waterloo – 17/30

Lethbridge – 13/30

Nelson – 19/30

Other

Waterloo – 4/30 (freshness), 1/30 (organic), 1/30 (appearance)

Lethbridge – 1/30 (ingredients)

Nelson – 11/30 (organic), 1/30 (vegan ingredients), 1/30 (how grown), 1/30 (packaging), 1/30 (non-processed)

⁸⁵ Reported answers are listed for very important and important responses only.

2. Where do you buy most of your fresh produce? Check all that apply and specify the season you shop where.

Large Supermarket

Waterloo – 15/30 (year round); 5/30 (seasonal)

Lethbridge – 18/30 (year round); 9/30 (seasonal)

Nelson – 7/30 (year round); 9/30 (seasonal)

Small Supermarket

Waterloo – 6/30 (year round); 1/30 (seasonal)

Lethbridge – 2/30 (year round)

Nelson – 6/30 (year round); 7/30 (seasonal)

Community Supported Agriculture

Waterloo – 0

Lethbridge – 0

Nelson – 0

Farmers' Market

Waterloo – 6/30 (year round); 5/30 (seasonal)

Lethbridge – 1/30 (year round); 6/30 (seasonal)

Nelson – 1/30 (year round); 10/30 (seasonal)

Other

Waterloo –

Lethbridge – 4/30 (garden); 1/30 (farm direct)

Nelson – 1-garden (yr round), 4-garden (summer only), 1- food delivery (year round), 1-farm direct (summer only), 1-fruit stands (summer only), 1-food delivery (winter only)

3. What is the main influence on determining where you shop? Please rate your answers from most to least influential⁸⁶.

Cost

Waterloo – 19/30

Lethbridge – 16/30

Nelson – 16/30

⁸⁶ Answers only provided for very influential or influential.

Convenience

Waterloo – 21/30
Lethbridge – 20/30
Nelson – 13/30

Customer Service

Waterloo – 14/30
Lethbridge – 16/30
Nelson – 20/30

Supporting Local Businesses

Waterloo – 19/30
Lethbridge – 12/30
Nelson – 26/30

Other

Waterloo – 3/30 (quality/freshness), 1/30 (organics), 1/30 (business of store)
Lethbridge – 1/30 (quality), 1/30 (local farmers), 1/30 (reward system)
Nelson – 1/30 (family ties to store), 1/30 (specialty items), 1/30 (cleanliness),
2/30 (quality), 3/30 (organic), 1/30 (coops), 1/30 (food bank)

4. Approximately how much of your diet consists of processed or packaged foods?

90-100%

Waterloo – 1/30
Lethbridge – 0
Nelson - 0

75-89%

Waterloo – 1/30
Lethbridge – 2/30
Nelson – 1/30

50-74%

Waterloo – 7/30
Lethbridge – 8/30
Nelson – 2/30

25-49%

Waterloo – 12/30

Lethbridge – 11/30

Nelson – 8/30

<25%

Waterloo – 9/30

Lethbridge – 9/30

Nelson – 19/30

5. Are you happy with the quality of food you are capable of buying⁸⁷?

Waterloo – 12/30

Lethbridge – 10/30

Nelson – 17/30

6. If not happy, what is preventing you from getting the quality of food you would like?

Cost

Waterloo – 6/18

Lethbridge – 6/20

Nelson – 4/13

Transportation

Waterloo – 4/18

Lethbridge – 3/20

Nelson – 0

Availability

Waterloo – 6/18

Lethbridge – 13/20

Nelson – 8/13

⁸⁷ Answers reported for 'yes, always' respondents only.

Other

Waterloo – 1(organic), 1(convenience)

Lethbridge – 1-time, 1-weather-winter

Nelson – 1-quality available, 1-industrial food system, 1-transportation of imported product

Not Applicable

Waterloo – 12

Lethbridge – 10

Nelson – 7

7. If not always satisfied, what is it you feel that you are not happy about? Circle all that apply.

Safety of Food

Waterloo – 5/18

Lethbridge – 4/20

Nelson – 2/13

Diversity of Produce

Waterloo – 3/18

Lethbridge – 7/20

Nelson – 2/13

Freshness of Produce

Waterloo – 11/18

Lethbridge – 11/20

Nelson – 3/13

Amount of Local Produce

Waterloo – 5/18

Lethbridge – 3/20

Nelson – 4/13

Other

Waterloo – 1(cost), 1(organics)

Lethbridge – 1-cost, 1 (GMOs, chemical inputs)

Nelson – 1-quality, 1-avail. in winter, 1-specialty food products, 1-corporatization

Not Applicable

Waterloo – 12

Lethbridge – 10

Nelson – 7

8. When you buy food, how often do you check to see where it was grown or produced?

Waterloo – 17/30 (always or usually)

Lethbridge – 13/30 (always or usually)

Nelson – 20/30 (always or usually)

9. How often do you make a special effort to buy food that was grown or produced in Canada?

Waterloo – 20/30 (always or usually)

Lethbridge – 11/30 (always or usually)

Nelson – 20/30 (always or usually)

10. How often do you make a special effort to buy food that was grown or produced in your province?

Waterloo – 16/30 (always or usually)

Lethbridge – 11/30 (always or usually)

Nelson – 18/30 (always or usually)

11. How often do you make a special effort to buy food that was grown or produced in your region/county?

Waterloo – 13/30 (always or usually)

Lethbridge – 9/30 (always or usually)

Nelson – 18/30 (always or usually)

12. If you buy regionally-produced food, what are your reasons for doing so? Please rank up to three of your most relevant reason from 1-3, 1 being most important and 3 being least important^{88, 89}.

Support Local Farmers

Waterloo – #1-10; #2-4, #3-3

Lethbridge – #1-9; #2-4

Nelson - #1-14; #2-5; #3-1

Fresher Produce

Waterloo – #1-5; #2-4; #3-5

Lethbridge – #1-8; #2-6; #3-1

Nelson - #1-5; #2-6; #3-2

Healthier

Waterloo – #1-3; #2-3, #3-1

Lethbridge – #1-2; #3-2

Nelson - #1-1; #2-3; #3-2

Preserve Local Farmland

Waterloo – #2-3; #3-2

Lethbridge – #1-1; #2-1

Nelson - #2-2; #3-2

Decreased Dependency on Imports

Waterloo – #2-2; #3-2

Lethbridge – #1-2; #2-1; #3-1

Nelson - #2-1; #3-1

Less Food Miles

Waterloo – #1-2; #3-2

Lethbridge – 0

Nelson - #1-2; #2-7; #3-3

⁸⁸ #1=10 means 10 people ranked that item as most important, #3=2 means 2 people ranked that item as third on the list of importance, etc.

⁸⁹ Two surveys spoiled this question and results were not able to be collected.

Cheaper

Waterloo – #2-1

Lethbridge – #3-1

Nelson - 0

Safer

Waterloo – #1-1; #2-1; #3-1

Lethbridge – #2-2

Nelson - #1-1

Other

Waterloo – #2-1 (trust), #1-1 (support *provincial* economy), #2-1 (quality)

Lethbridge – #1-1 (social outing), #3-1 (taste/quality)

Nelson - #1-6 (support local business/economy); #3-2 (organic)

13. What are the barriers you face to buying regionally-produced (local) food? Please rate your answers from most to least significant⁹⁰.

Location/Transportation

Waterloo – 7/30

Lethbridge – 3/30

Nelson – 4/30

Diversity of Produce

Waterloo – 9/30

Lethbridge – 4/30

Nelson – 9/30

Cost

Waterloo – 3/30

Lethbridge – 2/30

Nelson – 10/30

⁹⁰ Answers only provided for very significant or significant responses.

Other

Waterloo –1/30 (seasonality), 2/30 (availability), 1/30 (don't care), 1/30 (awareness of what's local)

Lethbridge –1/30 (convenience of market)

Nelson – 1/30 (will power), SS-1(availability), SS-1 (convenience), 3/30 (availability), 1/30 (not recognizable product)

None of the Above

Waterloo – 5/30

Lethbridge – 16/30

Nelson – 7/30

14. What are some reasons why you may not buy local? Please rank up to three of your most relevant reasons from 1-3 – 1 being most important and 3 being least important^{91, 92}.

The food I Like Can't Grow Here

Waterloo – #1-7; #2-5; #3-2

Lethbridge – #1-11; #2-1

Nelson – #1-16; #2-2

It Isn't Always Available Where I Shop

Waterloo – #1-3; #2-4; #3-4

Lethbridge – #1-5; #2-1; #3-1

Nelson – #1-2; #2-9

Seasonal and Not Always Available Locally

Waterloo – #1-6; #2-2; #3-1

Lethbridge – #1-2; #2-7

Nelson – #1-5; #2-4; #3-4

Cost More

Waterloo – #1-1; #2-2

Lethbridge – #1-4; #2-2

Nelson – #1-2; #2-2; #3-2

⁹¹ Answers reported the same as for questions 12, i.e. #1=10 means 10 people ranked that item as most important, #3=2 means 2 people ranked that item as third on the list of importance, etc.

⁹² Two surveys spoiled this question and results were not able to be collected.

Grows Better in Other Parts of the World

Waterloo – #1-2; #2-1; #3-1

Lethbridge – #1-1; #3-2

Nelson – #1-1; #3-5

Don't Stay as Fresh

Waterloo – #2-1

Lethbridge – 0

Nelson – #1-2

Like to Support International Producers

Waterloo – #1-2; #2-1

Lethbridge – #3-1

Nelson – 0

Other

Waterloo – 1(not import), 1(convenience), 3 (laziness), 1(organics), 1,1 (don't care), 1 (transportation), 2(not sure what grows locally)

Lethbridge – 1,1,1,1,1,1 (not important),1 (convenience), 2 (specialty foods),2 (convenience/time of year)

Nelson – 1-don't know what is locally produced,1-just not important

None of the Above

Waterloo – #1-1; #2-1

Lethbridge – 1

Nelson –

15. What local food system(s) would you be most likely to support or make use of? Circle all that apply.

Farmers' Markets

Waterloo – 26/30

Lethbridge – 21/30

Nelson – 23/30

CSA

Waterloo – 6/30

Lethbridge – 2/30

Nelson – 14/30

Roadside Stands

Waterloo – 10/30

Lethbridge – 10/30

Nelson – 15/30

Farm Direct Sales

Waterloo – 5/30

Lethbridge – 5/30

Nelson – 13/30

Local Label

Waterloo – 10/30

Lethbridge – 18/30

Nelson – 19/30

Other

Waterloo – 0

Lethbridge – 0

Nelson – 1-community garden

None of the Above

Waterloo – 0

Lethbridge – 2

Nelson – 0

16. Would you buy local food more often if it were labeled as local where you shop⁹³?

Waterloo – 24/30

Lethbridge – 22/30

Nelson – 27/30

⁹³ Answers only reported for 'yes definitely' or 'yes probably' responses.

17. Would you be willing to pay more for food that is labeled and produced locally⁹⁴?

Waterloo – 20/30

Lethbridge – 18/30

Nelson – 24/30

18. How frequently do you participate in any of the following activities⁹⁵?

Shop at Farmers' Markets

Waterloo – 14/30

Lethbridge – 9/30

Nelson – 17/30

Purchase Local Produce in Grocery Stores

Waterloo – 19/30

Lethbridge – 15/30

Nelson – 22/30

Eat Seasonally

Waterloo – 20/30

Lethbridge – 19/30

Nelson – 26/30

Buy Direct from Local Farms

Waterloo – 5/30

Lethbridge – 3/30

Nelson – 2/30

Join a CSA

Waterloo – 0

Lethbridge – 0

Nelson – 1/30

19. Is purchasing local produce something that is of importance to you?

Waterloo – 21/30 (very important or important)

Lethbridge – 19/30 (very important or important)

Nelson – 28/30 (very important or important)

⁹⁴ Answers only reported for 'yes definitely' or 'yes probably' responses.

⁹⁵ Answers only provided for respondents who answered 'regularly' or 'usually'.

20. How important do you think it is that your region/county invests in your local food system?

Waterloo – 27/30 (very important or important)

Lethbridge – 25/30 (very important or important)

Nelson – 29/30 (very important or important)

Appendix E

Key Informant Interview Question

1. What is your involvement in the local food movement?
2. What does **your organization** do (if anything) to **promote** local food?
3. What is being done in **your region** to **promote** local foods?
4. Is there a **local food policy** that you know about for the Region?
 - a. Has there been in the past?
5. How does **your region** define locally-produced?
6. How do **you** define locally-produced food?
7. Are there any regulations/initiatives that support/protect local growers in your region that you know of?
8. Do you perceive the Region to have a **strong** local food system already?
9. What do you perceive are the **barriers** to the development of a local food system in this Region?
10. What do you perceive has led to the **success** of the local food system in this Region?
11. What do you see as the **opportunities** to strengthening the local food system?
12. How **feasible** is it to develop a strong local food economy?
13. What do you feel is the **key** to making a local food system work in your Region?
14. Where do local farmers sell most of their crops?
15. Do you think farmers would be willing to sell more of their crops locally?
 - a. If so, why makes you think this?
 - b. If not, why not?
16. Do **you** think there is consumer demand for local produce?
17. Is there any campaigns in your region to educate about buying locally?
18. Do you foresee the possibility of strengthening the local food system?
 - a. If so, how?
 - b. If not, why not?
19. Is the current **agricultural policy** conducive to a local food economy?
20. What does the term **community food security** mean to you?
21. What does a **healthy** food system look like to you?
22. What are the **first steps** you see needing to be done to strengthen the local food system in your region?

Appendix F

Farmer Interview Questions

1. What is the size of your farm?
2. What type of commodities do you grow/raise?
3. What commodities do you sell locally? Through what means – market, CSA, farm direct, etc.?
4. Do you also participate in the global market?
5. If so, what products do you sell to the global market? Through what means – processor, wheat board, distributor?
6. Do you partake in any aspect of the local market?
7. If so, what aspect of the local market do you participate in?
8. Have you tried other means of selling locally?
9. If yes, what aspect of the local market have you also participated in?
10. Why is it you no longer participate in this aspect of local marketing?
11. Has selling locally been financially successful for you?
12. If no, what is the main reason you see in your lack of financial success in selling locally?
13. What are your main reasons for selling locally?
14. What barriers do you perceive in growing for the local market?
15. Elaborate on why these are perceived as barriers?
16. Do you feel there are any benefits to selling locally?
17. If yes, what do you feel these benefits are?
18. What opportunities exist, that you know of, to help farmers sell locally?
19. What do you feel is most needed to encourage farmers to grow for the local market?
20. Would you be willing to grow for the local market if your conditions above were met?
21. Would you be willing to grow for the local market given the current opportunities that exist?

Appendix G

Supermarket Owners/Managers Interview Questions

1. Where do you purchase the majority of your produce from?
2. How many distributors supply you with your produce?
3. Does your company also have any distributing or processing subsidiaries?
4. What is the structure of your company?
5. How free is your store to make its own purchasing decisions?
6. Where is most of this food coming from?
7. What percentage of your produce is from local farmers?
8. What would you like to sell more local produce?
9. How do you go about purchasing your local produce?
10. Do you foresee any opportunities to sell more local food in your store?
11. If yes, what might motivate you to sell more local food?
12. What do you perceive the barriers are to selling local food (if any)?
13. What have consumers expressed as their main motivator for the food they buy?
14. What do you feel your company would most willing to do to help develop a local food system?

Bibliography

- Agriculture and Agri-Food Canada. (2000). Plant hardiness zones of Canada 2000. Retrieved November 19, 2006 from <http://nlwis-snite1.agr.gc.ca/plant00/index.phtml?lang=en-CA#>
- Agriculture and Agri-Food Canada. (2005). Weather at the AAFC Lethbridge Research Centre. Retrieved March 20, 2006 from http://res2.agr.ca/lethbridge/weather-temps/index_e.htm
- Alberta Agriculture. (2007). AF's regional cuisine initiative. Retrieved February 20, 2007 from [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/apa8719#research](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/apa8719#research)
- Alberta Environment. (2005). Mean annual precipitation. Retrieved April 4, 2007 from http://www3.gov.ab.ca/env/water/GWSW/quantity/learn/What/CLM_Climate/CLM_PDF/CLM1_precip_avg.pdf
- Allen, P. (2004). *Together at the table: Sustainability and sustenance in the American agrifood system*. Pennsylvania: Pennsylvania State University.
- Anderson, M., & J. Cook. (1999). Community food security: Practice in need of theory?. *Agriculture and Human Values*, 16, 141-150.
- Babcock, G., (2006). What does local food really mean? Getting down to business with local jobs, sales and economic development. Paper presented at the Local Food Conference, Toronto, ON.
- Bellows, A., & M. Hamm. (2000). Local autonomy and sustainable development: Testing import substitution in localizing food systems, *Agriculture and Human Values*, 18, 271-284.
- Berthold-Bond, D. (2000). The ethics of 'place': Reflections on bioregionalism, *Environmental Ethics*, 22, 5-24.
- Elliot, B., Thurston, R., & C. Milner. (2006). *SouthGrown Validation and Feasibility Analysis: Final Report*. Lethbridge: The Business Group.
- Canada's National Farmers Union. (2005). The farm crisis and corporate profits. Retrieved April 3, 2007 from http://www.nfu.ca/new/corporate_profits.pdf
- Canadian Federation of Agriculture. (2007). Food freedom day. Retrieved February 26, 2007 from http://www.cfa-ca.ca/pages/index.php?main_id=10
- Canadian Wheat Board (CWB). (2007). A history of U.S. trade challenges: U.S. trade challenges of Canadian wheat imports. Retrieved March 5, 2007 from http://www.cwb.ca/public/en/hot/trade/popups/trade_history.jsp
- Central Kootenay Regional District. (2006). Know your regional district. Retrieved March 20, 2006 from http://www.rdck.bc.ca/publications/pdf/Know_Your.pdf

- Central Kootenay Regional District. (2007). Municipalities. Retrieved March 20, 2006 from <http://www.rdck.bc.ca/corporate/municipalities.html>
- County of Lethbridge. (2006). Communities. Retrieved March 20, 2006 from <http://www.county.lethbridge.ab.ca/municipal/lethbridge/lethbridge-website.nsf/AllIDoc/E4FEF97267AE33B88725705F0076F6F8?OpenDocument>
- DeLind, L. (2002). Place, work, and civic agriculture: Common fields for cultivation. *Agriculture and Human Values*, 19. 217-224
- DuPuis, E., & D. Goodman. (2005). Should we go "home" to eat?: Toward a reflexive politics of localism. *Journal of Rural Studies*, 21. 359-371.
- Economic Development Lethbridge. (2006a). Investors and site location: Population and demography. Retrieved March 20, 2006 from <http://www.ecdevlethbridge.com/investors/population.php>
- Economic Development Lethbridge. (2006b). Investors and site location: Agri-food. Retrieved March 20, 2006 from the World Wide Web: <http://www.ecdevlethbridge.com/investors/agrifood.php>
- Farmers' Markets Ontario. (2007). The history of farmers' markets Ontario. Retrieved April 6, 2007 from <http://farmersmarketsontario.com/history.php>
- Feagan, R., Morris, D., & K. Krug. (2004). Niagara farmers' markets: Local food systems and sustainability considerations. *Local Environment*, 9(3), 235-254
- Feagan, R., (2007). The place of food: Mapping out the 'local' in local food systems", *Progress in Human Geography*, 31(1), 23-42.
- Feenstra, G. (2002). Creating space for sustainable food systems: Lessons from the field. *Agriculture and Human Values*, 19, 99-106.
- Food and Agriculture Organization (FAO). (1997). Hazard analysis and critical control point (HACCP) system and guidelines for its application. Retrieved February 2, 2007 from <http://www.fao.org/DOCREP/005/Y1579E/y1579e03.htm>
- Food First. (2002). Food sovereignty: A right for all. Retrieved May 12, 2007 from <http://www.foodfirst.org/progs/global/food/finaldeclaration.html>
- Foodlink Waterloo Region (Foodlink). (n.d.). Who we are. Retrieved February 20, 2007 from <http://www.foodlink-waterlooregion.ca/index.php?first=3ef30bda5fe9e>
- Frenkel, S. (1994). Old theories in new places? Environmental determinism and bioregionalism. *The Professional Geographer*, 46(3), 289-295.
- Friedmann, H. (1994). Distance and Durability: Shaky Foundations of the World Food Economy", in P. McMichael (ed.) *The Global Restructuring of Agro-Food Systems*, (pp. 258-276). (Cornell University Press: Ithaca).

- Gale, F. (1997). Direct farm marketing as a rural development tool, *Rural Development Perspectives*, 12(2), 19-25.
- Goodman, M. (2004). Reading fair trade: Political ecological imaginary and the moral economy of fair trade foods. *Political Geography*, 23, 891-915.
- Guelph Organic Conference, "What Will the Next Generation of Organics be Like?", January 25-28, 2007. University of Guelph.
- Gupill, A., & J. Wilkins. (2002). Buying into the food system: Trends in food retailing in the US and implications for local foods. *Agriculture and Human Values*, 19, 39-51.
- Henderson, E. (1998). Rebuilding local food systems from the grassroots up. *Monthly Review*, 50(3), 112-124.
- Hines, C. (2000). *Localization: A global manifesto*. Earthscan: London.
- Hinrichs, C. (2003). The practice and politics of food system localization. *Journal of Rural Studies*, 19, 33-45.
- Hutterian Brethren Schmiedeleut Conference, The (HBSC). (2006a). Hutterites.org: Livelihood. Retrieved February 20, 2007 from <http://www.hutterites.org/livelihood.htm>
- Hutterian Brethren Schmiedeleut Conference, The (HBSC). (2006b). Hutterites.org: Agriculture. Retrieved February 20, 2007 from <http://www.hutterites.org/agriculture.htm>
- Kloppenburg, J., Hendrickson, J., & G. Stevenson. (1996). Coming in to the foodshed. *Agriculture and Human Values*, 13(3). pp. 33-42.
- Kneen, B. (1995). Land to Mouth. NC Press: Toronto.
- Koc, M. & Dahlberg, K. (1999). The Restructuring of food systems: Trends, research, and policy issues. *Agriculture and Human Values*, 16, 109-116.
- Lappe, F. (1998). *World hunger: 12 myths*. Grove Press: New York.
- Lapping, M. (2004). Toward the recovery of the local in the globalizing food system: The role of alternative agricultural and food models in the US. *Ethics, Place and Environment*, 7(3), 141-150.
- La Trobe, H. (2001). Farmers' markets: Consuming rural local produce", *International Journal of Consumer Studies*, 25(3), 181-92.
- Lyson, T. (2004). *Civil agriculture: Reconnecting farm, food, and community*. Medford: Tufts University Press.
- Martin, D. (2003). *Old order Mennonites of Ontario: Gelassenheit, discipleship, brotherhood*. Kitchener: Pandora Press.
- McMichael, P. (1998). Global food politics. *Monthly Review*, 50(3), 97-111.

- Ministry of Community Services. (2006). Statistics relating to regional and municipal governments in BC 2006. Retrieved February 1, 2007 from http://www.cserv.gov.bc.ca/lgd/infra/library/regional_stats06_summary.pdf
- Natural Resources Canada. (1957). Atlas of Canada – Growing seasons. Retrieved April 3, 2007 from <http://atlas.nrcan.gc.ca/site/english/maps/archives/3rdedition/environment/climate/024?w=4&h=4&l=2&r=0&c=0>
- Natural Resources Canada. (1980). Atlas of Canada – Agricultural lands, 1980. Retrieved November 26, 2006 from <http://atlas.nrcan.gc.ca/site/english/maps/archives/5thedition/economic/resourceindustries/mcr4022>
- Oxfam International. (2001). Eight broken promises: Why the WTO isn't working for the world's poor. Retrieved April 4, 2007 from http://www.oxfam.org/en/files/pp0110_8_Broken_Promises.pdf/download
- Palys, T. (1997). *Research decisions: Quantitative and qualitative perspectives*, 2nd Ed. Toronto: Harcourt Brace & Company.
- Pascual, F., & Glipo, A.. (2002). WTO and Philippine agriculture: Seven years of unbridled trade liberalization and misery for small farmers. *Development Forum, No. 1*. Retrieved April 4, 2007 from http://ist.uwaterloo.ca/ew/thesis/Thesis_word.html
- Payne, T. (2002). US farmers' markets-2000: A study of emerging trends. US Department of Agriculture. Retrieved April 6, 2007 from the World Wide Web: <http://www.ams.usda.gov/directmarketing/FarmMark.pdf>
- Pelletier, D., Kraak, V., McCullum, C., Uusitalo, U., & R. Rich. (1999). Community food security: Salience and participation at community level. *Agriculture and Human Values*, 16, 401-419.
- Pollen, M.. (2006). The omnivore's dilemma: A natural history of four meals. New York: Penguin Press.
- Pollen, M. (2007, April 25). You are what you grow. The New York Times.
- Province of British Columbia Ministry of Environment. (1980). Soil resources of the Nelson map area. Retrieved November 19, 2006 from <http://sis.agr.gc.ca/cansis/publications/bc/bc28/intro.html>
- Province of British Columbia. (2001). British Columbia regional index. Retrieved March 20, 2006 from <http://www.regionalindex.gov.bc.ca/Areas/AreaDisplay.asp?areaName=Central%20Kootenay%20Regional%20District&number=5&ind=Agriculture>
- Raynolds, L. (2000). Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture and Human Values*, 17, 297-309.

- Region of Waterloo. (2003a). 2001 Region of Waterloo statistical profile: Agriculture. Retrieved March 20, 2006 from [http://www.region.waterloo.on.ca/web/region.nsf/c56e308f49bfeb7885256abc0071ec9a/C5B3561AD82C8D1D85256B1B007211DA/\\$file/ProfileAg_forWeb.pdf?openelement](http://www.region.waterloo.on.ca/web/region.nsf/c56e308f49bfeb7885256abc0071ec9a/C5B3561AD82C8D1D85256B1B007211DA/$file/ProfileAg_forWeb.pdf?openelement)
- Region of Waterloo. (2003b). Economic impact study of the agriculture and food-related sectors in Waterloo Region. Retrieved March 20, 2006 from [http://chd.region.waterloo.on.ca/web/health.nsf/0/4BB1ACEAADD5D9E885256DCE006768DA/\\$file/Food%20Economy.pdf?openelement](http://chd.region.waterloo.on.ca/web/health.nsf/0/4BB1ACEAADD5D9E885256DCE006768DA/$file/Food%20Economy.pdf?openelement)
- Region of Waterloo. (2006a). Regional information about regional government. Retrieved March 20, 2006 from <http://www.region.waterloo.on.ca/web/region.nsf/DocID/D6C7B31155F5FF8685256AF700629A28?OpenDocument>
- Region of Waterloo. (2006b). Population profile. Retrieved March 20, 2006 from <http://www.region.waterloo.on.ca/web/region.nsf/DocID/0776E1882A72B3DC85256B1B006F8ADB?OpenDocument>
- Region of Waterloo Public Health (RWPH). (2003). *Growing food and economy: Economic impact study of the agriculture and food-related sectors in Waterloo Region*. Waterloo: Region of Waterloo Public Health. Retrieved September 12, 2006 from <http://chd.region.waterloo.on.ca/web/health.nsf/4f4813c75e78d71385256e5a0057f5e1/4bb1aceadd5d9e885256dce006768da!OpenDocument>
- Region of Waterloo Public Health (RWPH). (2005a). Towards a healthy community food system for Waterloo Region – Interim report. Waterloo: Region of Waterloo Public Health.
- Region of Waterloo Public Health (RWPH). (2005B). Food Miles: Environmental Implications of food imports to Waterloo Region. Waterloo: Region of Waterloo Public Health.
- Riches, G., Buckingham, D., MacRae, R., & A. Ostry. (2004). *Right to food case study: Canada*. Rome: Italy. Food and Agriculture Organization of the United Nations. Retrieved April 15, 2007 from http://www.fao.org/righttofood/common/ecg/51629_en_Template_Case_Study_Canada.pdf
- Rosset, P. (1998). Alternative agriculture works. *Monthly Review*, 50(3), 137-146.
- Rosset, P. (2006). Agrarian reform and food sovereignty: Alternative model for the rural world. Retrieved April 15, 2007 from <http://www.latam.ufl.edu/news/conf-papers/Rosset.pdf>
- Schwind, K. (2005). Going local on a global scale: Rethinking food trade in the era of climate change, dumping, and rural poverty. *Food First Backgrounder*, 11(2). Retrieved April 15, 2007 from <http://www.foodfirst.org/files/pdf/backgrounders/goinglocal.pdf>
- Shiva, V. (2000). Genetic Engineering and Food Security. In *Stolen Harvest: Hijacking of the Global Food Supply*. (pp. 95-116). Cambridge, MA: South End Press.
- Soots, L. (2003). Home Grown: Local Food System Development in Waterloo Region (Masters Thesis, University of Waterloo).

Southgrow Regional Initiative. (2007). *Our goal*. Retrieved April 14, 2007 from <http://www.southgrow.com/index.asp>

Starr, A., Card, A., Benepe, C., Auld, G., Lamm, D., Smith, K., and K. Wilken. (2003). Sustaining local agriculture: Barriers and opportunities to direct marketing between farms and restaurants in Colorado. *Agriculture and Human Values*, 20, 301-21

Statistics Canada. (2002). 2001 Agricultural community profiles – Farm data: Initial release. Retrieved April 3, 2007 from <http://www.statcan.ca/english/freepub/95F0301XIE/index.htm>

Statistics Canada, (2007a). 2001 community profiles – Waterloo, Ontario. Retrieved March 20, 2006 from <http://www12.statcan.ca/english/Profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CD&Code1=3530&Geo2=PR&Code2=35&Data=Count&SearchText=waterloo&SearchType=Begins&SearchPR=01&B1=All&Custom=>

Statistics Canada. (2007b). 2001 agricultural community profiles – Waterloo, Ontario. Retrieved March 20, 2006 from <http://www25.statcan.ca:8081/AgrProfile/showData.jsp?LocCode=023274>

Statistics Canada. (2007c). 2001 agricultural community profiles – Nelson, British Columbia. Retrieved March 20, 2006 from <http://www25.statcan.ca:8081/AgrProfile/showData.jsp?LocCode=035160>

Statistics Canada. (2007d). 2001 community profiles –Lethbridge County. Retrieved March 20, 2006 from <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4802011&Geo2=PR&Code2=48&Data=Count&SearchText=lethbridge&SearchType=Begins&SearchPR=01&B1=All&Custom=>

Statistics Canada. (2007e). 2001 community profiles –Lethbridge. Retrieved March 20, 2006 from <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4802011&Geo2=PR&Code2=48&Data=Count&SearchText=lethbridge&SearchType=Begins&SearchPR=01&B1=All&Custom=>

Statistics Canada. (2007f). 2001 community profiles - Central Kootenay Regional District. Retrieved March 20, 2006 from <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CD&Code1=5903&Geo2=PR&Code2=01&Data=Count&SearchText=nelson&SearchType=Begins&SearchPR=01&B1=All>

Statistics Canada. (2007g). 2001 agricultural community profiles – Lethbridge, Alberta. Retrieved March 20, 2006 from <http://www25.statcan.ca:8081/AgrProfile/showData.jsp?LocCode=031654>

Stephenson, G. & L. Lev. (2004). Common support for local agriculture in two contrasting Oregon communities. *Renewable Agriculture and Food Systems*, 19(4), 210-17.

Tarasoff, K. (2002). *Spirit wrestlers: Doukhobor pioneers' strategies for living*. Ottawa: Spirit Wrestling Publishing.

Township of Woolwich. (2006). Things to do and see. Retrieved March 1, 2007 from <http://www.township.woolwich.on.ca/en/tourism/thingstodo.asp>

Watts, D., Ilbery, B., & D. Maye. (2005). Making reconnections in agro-food geography: Alternative systems of food provision. *Progress in Human Geography*, 29(1), 22-40.

Weather Network (The). (2007a). Statistics – Waterloo Wellington Airport, ON, Canada. Retrieved March 24, 2007 from <http://www.weathernetwork.ca/weather/stats/pages/C01998.htm>

Weather Network (The). (2007b). Statistics – Lethbridge, Alberta. Retrieved April 4, 2007 from <http://www.weathernetwork.ca/weather/cities/can/Pages/CAAB0194.htm>

Weather Network (The). (2007c). Statistics – Castlegar Airport, BC, Canada. Retrieved April 4, 2007 from <http://www.theweathernetwork.com/weather/stats/pages/C02089.htm?CABC0198>

Wilkins, J. (2005). Eating right here: Moving from consumer to food citizen. *Agriculture and Human Values*, 22, 269-273.