A Study Of The Feasibility In Relocalizing The Food System At The University Of British Columbia

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University of British Columbia

AGSC 450

March 31, 2004

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A STUDY OF THE FEASIBILITY IN RELOCALIZING THE FOOD SYSTEM AT THE UNIVERSITY OF BRITISH COLUMBIA

March 31, 2004

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Abstract

We looked at the feasibility of a relocalized food system at UBC. The ultimate goal of this project is not to promote the adoption a solely local diet, but to find the right balance of locally-produced, seasonal and imported foods purchased that would most feasibly support a “sustainable diet” in terms of environmental, economic, and social impacts. Benefits of a localized food system include less carbon emissions from the shorter transportation distance of food products, boosting the local economy, and a personal re-connection with food and the farmer. According to our ecological, economic and social indicators, we have determined the level of feasibility to be high if 50% of products purchased by UBC food services are available locally, 10% of total expenditures is towards food procurement is for local food, and there is ≥50% awareness level of the UBC community towards the benefits of purchasing local foods and willingness to do so. We also describe the use of an educational poster to increase awareness of a local food system on campus and provide methods for research for next year’s AGSC 450 class.
Introduction

The sustainability of the food system at UBC went under review by the 2003 AGSC 450 class. Results indicated many areas for improvement, one being the need for more local food procurement practices. We, group 17, believe that the adoption of a more localized food system at UBC has many benefits and would contribute to the overall sustainability of the system. Not only would a more localized approach improve the sustainability of the UBC food system, it is also a very necessary step to take in order to avoid the complete collapse of the system due to its current unsustainable conditions. We will attempt to determine how feasible it would be to introduce a more localized food system and UBC and will also address the need for increased awareness on campus through the use of an education piece.

Problem Statement

The ultimate goal of this project is not to promote the adoption a solely local diet, but to find the right balance of locally-produced, seasonal and imported foods purchased that would most feasibly support a “sustainable diet” in terms of environmental, economic, and social impacts. Whether or not the re-localization of the UBC food system is feasible depends on a number of factors, including:

- food service providers continue to make similar or better economic return
- a socially acceptable level of variety of products is still available at an acceptable cost
- a social interest and willingness in making local and seasonal food choices
- an overall reduction in negative environmental impacts
- ability of local food suppliers to respond to increased demands from UBC purchasing department, in terms of quantity, availability, and competitive prices

Value Assumptions and Group Narrative

Values serve as the unique lens through which the world is seen by each individual. They shade perceptions of events, rights and wrongs, problems and solutions. Our group shares the same weak-anthropocentric value point of view with last year’s Group 14. We place our own survival as priority over other things, but we also value our surroundings because that is what sustains our own
existence. Our group also values the community and, at the same time, values the individual. As we are aware that individuals are the thread of the community, the two are seen as inseparable. Some of the group members placed a higher value on the health of the community and the individual in terms of nutrition and food safety, while others were more concerned with the impact of the food system on the natural environment or the economic stability of the food system. Overall, we agreed the health of the community, the individual, the natural environment, and the economy are all synergistically related when evaluating the sustainability of a food system.

One limitation of our perspectives may be that no one in the group feels extremely passionate about the primary importance of just one of the environmental, economic or social indicators of sustainability. Although in the long run it is most desirable to appreciate the balance between the three indicators, it is also very beneficial to have strong contrasting opinions in the group. These would serve to stimulate the development of more creative solutions that account for the contrasting needs and variable of each class of indicator. For example, having one strong environmental advocate would keep the group from ignoring any less obvious negative impacts that one suggested solution may have on the environment.

In discussing possible actions and recommendations of the re-localization of the food system, our group’s values became more and more obvious. For example, we had a debate about how “local” re-localization needed to be. We opted for “local” to mean produced within BC. We decided not to include Washington produce as local, even though Washington is closer to UBC than some parts of BC. This is not only for the sake of simplicity, since data is often more readily available at the provincial level, but also largely because of group patriotism. Buying Canadian also helps build a food system that we have more political control over than one based in the US. Here, our values about our personal connections with the “Canadian community” won out over the close physical proximity of Washington.
We did agree, however, that although the focus of this course was sustainability, we needed to focus on feasibility. Feasibility means the degree to which the action under question will yield success with reasonable effort. Feasibility analysis tends to be weighted towards economic concerns, but also includes the ecological and social aspects as well, like sustainability. In other words, a feasible option is economically doable, and carrying out that option maintains or provides a net improvement in the economic, social and ecological quality of the system. After coming to a consensus on this definition, we were able to identify barriers to re-localization (factors that could make re-localization “unfeasible”) and created economic, social and ecological indicators based on these.

**Assessing Group 14’s Indicators**

Our group chose to assess Group 14’s model from last year’s class. Their model presented a clear description of the indicators chosen and their research methodology. Group 14 had chosen one indicator for each of the ecological, social and economical aspects and presented a research design for measuring each indicator. Through our own group discussion we have implemented several modifications to better cover each aspect of sustainability and increase the practicality and feasibility of the research methods.

Last year’s group chose food mileage as the indicator for the ecological aspect. The AMS Food and Beverage department, UBC Village, and the UBC food services sourced a variety of food and ingredients from food supplies broker. More than 6 million dollars each year are spent on food procurement practices by UBC Food Services alone.

For the social indicators, last year’s group chose awareness of nutritious food. Our group agrees that to assess UBC social sustainability status, awareness of nutritious food should be the main approach. Unlike group14, we also felt that awareness of local food held the same importance. We believe that assessing a representative population in the UBC campus through a survey-type
questionnaire can give policy makers and stakeholders the perspective the general campus-population has toward food system sustainability.

Group 14 chose affordability of nutritious food as the economic indicator. Through price comparison of food on and off campus and assessing how much of an individual’s income goes toward buying nutritious food, they can relate how costs of food might affect an individual’s financial stability. But with the vast number of commodities available on campus and in the Village, we agreed that there has to be a set number of foods that we should use to compare price.

**Literature Review**

We believe that a more localized food system at UBC would contribute to the sustainability of the system for a number of reasons. Food has become increasingly more like a global commodity than a local product (Lieblein, 2001). In the USA, the average distance that a food item travels from the farm to the consumer’s kitchen is now 50% further than it did in 1979, with each item traveling an average of 2000 kilometers (Pretty, 2000). The result is an increase in the use of non-renewable fossil fuels and the production of greenhouse gases in distributing food. Also, in the early 1900’s farmers were receiving 44% of the consumer cost of their product, but by the 1990’s were only receiving 9% (Pretty, 2000). Now, marketing takes 66% and production costs takes 25% of the total price (Pretty, 2000). In global food systems, people are becoming increasingly distant from their food, resulting in difficulties identifying and making connections with the producers and processors of their food (Lieblein, 2001). Individuals, therefore may place less priority on agriculture, food systems, natural resources, and long-term sustainability (Lieblein, 2001).

A local food system works to help solve the above problems. Environmental benefits of a local food system include decreased transport externalities, food miles, and greenhouse gas emissions and more sustainable production systems (Pretty, 2001).
Economic benefits of a local food system would include a greater percent of purchasing cost of a food item being re-allocated to the farmers (Pretty, 2001). Not only would farmers earn greater incomes, there would be a greater financial contribution to the local economy (Pretty, 2001). Local farms are more likely to purchase inputs locally, provide jobs for local residents, and reinvest profits in the community (Lyson, 1999). Buying directly from the farmer at a farmers market is also a less expensive way of purchasing high quality produce. However, purchasing from a local food producer may initially result in increased food prices because of lower economies of scale and the high cost of farmland near urban areas (Herrin, 1989). On the other hand, if the true long-term costs of the environmental degradation of the present food production system are counted in the cost of food, then in the long-term, local food production would result in relatively less expensive food (Herrin, 1989).

Social benefits of a local food system include greater proximal and psychological connections between the consumer and the producer and the consumer and food (Pretty, 2001). By knowing the origin, history and identity of the food, a higher level of trust is given to the safety and nutritional value of the food (Lieblein, 2001). Consumers and producers can connect through the purchase of locally grown foods at farmers markets, consumer groups and cooperatives, community gardens, and box schemes (Pretty 2001).

A local food system has a number of unique characteristics as compared to the global food system. A local food system follows the theory of civil society, in that what is good for the farm is inseparable from what is good for the community as a whole, and for future generations (Lyson, 1999). A local food system also depends on a relatively large number of many different types and sizes of farms. Local farms have relatively high transaction costs but much lower marketing, packaging, processing and transportation costs (Lyson, 1999). There also may be a reduced variety of produce available locally and a greater need for seasonal variation in the diet (Lyson, 1999). A study
in Montana indicated, however, that a nutrient analysis of a local and seasonal diet provided a nutritionally adequate base of foods (Herrin, 1989).

**Ecological Indicators**

The key ecological difficulty encountered in relocalization is that the soil and climate of the local area (Herrin and Gussow 1989) – taken here to be the province of British Columbia – may not allow production of foods preferred at UBC. This is not to say that 100% of the foods we eat must be growable in BC for relocalization to be feasible. Rather, a sufficient proportion of foods eaten in major food categories should be locally available, if relocalization is to be carried out while still providing a nutritionally and socially acceptable range of foods.

A simple ecological indicator of how feasible it is to relocalize UBC’s food system is the proportion of fresh produce used at UBC that *can* be obtained from BC sources. This is very similar to the economic indicator because they both look at feasibility from the UBC food retailer’s point of view (supply side of the UBC food economy), whereas our social indicator looks at the customer’s point of view (demand side of the UBC food economy).

Monthly food purchasing data by UBC food services is available from Dorothy Yip¹, and data for AMS Food and Beverages can be obtained from Nick Gregory.² Note that the methods here refer to UBC Food Services, but the same analysis can be carried out on data for AMS Food and Beverages. We recommend analysing the two separately since they are separate management units. Commodity lists for products produced in BC are available through the BCMAFF (2001a).

Products used at UBC could be listed in one column of an Excel spreadsheet. In the column next to it, check off those that *can* be (though not necessarily are) obtained from BC sources. Use the

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¹ Dorothy Yip
² Nick Gregory

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BC Agricultural Commodity List for this purpose (BCMAFF 2001). An example of this analysis is given in Table 1.

**Table 1. Sample table for selected fresh fruits used at UBC.**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Grown/raised in BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>No</td>
</tr>
<tr>
<td>Strawberries</td>
<td>Yes</td>
</tr>
<tr>
<td>Bananas</td>
<td>Yes</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>No</td>
</tr>
</tbody>
</table>

If time is very limited, this data set could be used to calculate a crude feasibility indicator.

Feasibility can be rated as follows:

- 75-100% of products available locally: relocalization is **very** ecologically feasible.
- 50-74% of food products available locally: relocalization is ecologically feasible.
- 25-49% of food products available locally: relocalization is **somewhat** ecologically feasible.
- 0-24% of food products available locally: relocalization is **not** ecologically feasible.

In this case, 2/4 of the products analyzed are on the BC Agriculture Commodity List, so the indicator value is 50% and relocalization is somewhat feasible.

Next, seasonality data can be added to the analysis. In Table 2, months in which a produce item is available are marked with an X. Note that seasonality is taken to include months in which the fresh product is available in storage. This could be extended to include frozen products (e.g., frozen strawberries), but only fresh produce is considered here for simplicity.

**Table 2. Identifying Seasonality**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bananas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomatoes</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Next, for each month that a product is available, determine what proportion of the quantity ordered by UBC Food Services is available locally. Speaking directly with a broker may be
sufficient if a small number of products are analyzed. Otherwise, look at the total amount of the fruit/vegetable produced (or available in storage) in BC for that month. Assign a value of 1 to indicate that in that month, sufficient volume of the product is available, should UBC be willing to pay for it. A value less than one is the proportion of the required volume that could be obtained if desired. To summarize the monthly values, calculate the Sufficiency Index. The Sufficiency Index is calculated as the sum of these proportions divided by 12 months. Hypothetical data is presented in Table 3.

Table 3. Volume and seasonality

<table>
<thead>
<tr>
<th>Product</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
<th>(Sum/12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>0.7</td>
<td>0.5</td>
<td>0.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.8</td>
<td>0.45</td>
</tr>
<tr>
<td>Strawberries</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
</tr>
<tr>
<td>Bananas</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Once the table is complete, count the number of products with a Sufficiency Index of 0.4 or higher and divide by the total number of products examined. This gives a value showing the percentage of fruits/vegetables for which at least 40% of their required volume could be purchased locally in the average month. For the data in Table 3, this value is 2/4, or 50%. Comparing this to the feasibility scale, relocalization is feasible for this group of products.

The limitation of this indicator is that it does not tell us whether those local products are produced more or less sustainably than their non-local counterparts. For example, greenhouse tomatoes often have a much larger ecological footprint than their field-grown counterparts, even considering the food miles. Also, it ignores potential quality differences between local and non-local food. What we have done here, however, is to look only at one aspect of relocalization.

Relocalization is a complex process, an evolution that can be analyzed in stages of 1) locally

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3 Arbitrary threshold level, chosen as a “reasonable proportion” for local food at UBC during the early stages of relocalization.
sourcing the foods we currently eat, 2) shifting diets toward foods that are currently produced locally, and 3) diversifying local production to provide a wider range of products where ecologically feasible.

**Economic Indicators**

Agricultural inputs in the form of goods, labour, or services can be sourced from many places, but when they come from the local economy, the expenditure helps to sustain local businesses and livelihoods (Vis & Standish, 2004). Group 14 of last year’s Agricultural Sciences 450 class chose the cost of nutritious food on campus as an economic indicator of local food system sustainability – a measure of how much of individual income within the UBC community must be devoted to obtain adequate nutrition on a daily basis or, in other words, how much of an economic burden the cost of quality food imparts.

Although a valid measure of sustainability, our focus in this paper was outlined as assessing the feasibility in relocalizing the procurement practices of food service providers at UBC. As food service providers already make so little per dollar spent on food procurement – only 3 cents per dollar spent by consumers according to Andrew Parr on March 3 – only the purchase of less expensive local alternatives would be feasible. As such, the threshold for the feasibility in relocalizing any food product is definite and clear-cut, as only local alternatives which are less expensive can be termed a feasible alternative.

Future classes in AGSC450 who reach the stage of implementing these ideas would benefit from researching the current prices at which UBC Food Services buys various non-locally produced foods, and then search for alternative retailers of these foods here in the Lower Mainland. Currently, price information provided by Statistics Canada comes at a hefty price, although probably still less expensive than conducting primary research on prices. If in fact less expensive, these local food suppliers would make the relocalization of some food products economically feasible.
Acquiring foods produced locally at lower prices would lead to a win-win situation for both consumers and vendors on campus. Eliminating the variable of costs associated with some selected local food products, consumers would have more incentive to buy locally. Conversely, vendors would not only have a moral incentive in the sale of such items, but also an economic benefit. The resulting expenditures spent on local food products – some proportion of the university food system’s overall budget – could be used as an indicator of the university’s commitment to relocalization. A benchmark percentage of locally-produced food purchased should be established – a University of Wisconsin study revealed even a 10% investment in purchasing local foods can have tremendous impacts on the local economy (University of Wisconsin, 2004).

We conclude that using the cost of nutritious foods on campus, the measure of sustainability proposed by group 14 last year, would not be entirely realistic as an indicator of the economic feasibility in relocalizing the UBC food system. We recommend particular attention be paid to those components of the system, individual food products, which may be purchased locally at a lower cost to the vendor. This may be the case of some food products currently being procured, but not others. As such, an additional investigation by next year’s AGSC450 class could examine exactly which commodities, e.g. apples, milk, salad greens, could be purchased locally at a lower price than the current practice. A commitment by the university to ensure some proportion of food procurement to be local would involve setting a benchmark percentage of total expenditures, similar to the example of 10% given above.

**Social Indicators**

The social indicator chosen to measure the feasibility of a re-localized UBC food system was consumer awareness about the food supply and willingness to eat a more local and seasonal diet. The group felt that the first step in moving toward a sustainable food system would have to involve increasing the level of awareness among consumers. As last year’s group 13 stated “if students are
unaware of the issues surrounding sustainability, they will be unable to assist in the movement towards sustainability” (Bouris, 2003). A study by Hedmark indicated that 42% of people questioned were not interested about the source of their food (Lieblein, 2001). The goal of increasing awareness is not only to further convince those who already believe in the value of a more localized food system, but also to reach those who do not normally think about their food in this sense and provide them with facts and evidence to develop an informed opinion.

In a more local food system, there would be improved understanding between the producer and the consumer, leading to increased awareness of the importance of supporting local farmers and the local economy (Lieblein, 2001). In this way, the re-localization of food is a key concept in increasing awareness of food in the community, just as increasing awareness of the benefits of localization is a key component in increasing the feasibility of a more localized food system by allowing it to be more accepted and appreciated.

It is also important to determine if the population at UBC would be interested and willing to support more local and seasonal food on campus. If the consumer demand is not present, then increasing the supply would be ineffective. If there is no consumer demand for local and seasonal food on campus, then the feasibility of a re-localized UBC food system would be low. The way to increase demand is through increasing awareness and providing the consumers with the tools and abilities to make an informed decision when purchasing food. The outcome would, hopefully, be a feeling of higher personal responsibility to make sustainable food choices. Assuming that awareness of the benefits of a re-localized food system is currently low, the group has also planned to implement an educational tool that will be discussed later.

In order to evaluate the state of awareness and willingness to eat a more local and seasonal diet in the UBC community, a questionnaire was developed (see Appendix 1). This sample questionnaire includes a section on attitudes, beliefs, behaviours and identity. Behaviour is the easiest component to change, followed by attitudes and then beliefs. Knowing the individual’s general
characteristics would help categorize which groups of people on campus are more or less receptive to the promotion of local and seasonal food choices. As seen in the evaluation guide in Appendix 2, a higher individual score out of 60 indicates a high level of awareness and interest in eating a local and seasonal diet, while a score below 30/60 would indicate that the introduction of local food would not be feasible, since the consumer demand is too low. In this case, more education and awareness promotion would be needed, such as an educational poster.

The questionnaire could be replicated and distributed among a random sample of individuals on the UBC campus. To receive the highest amount of feedback, it would be beneficial to send a campus wide email to all students and faculty asking them to complete the attached questionnaire. A small incentive would also increase the number of replies, such as the eligibility to be entered in a draw for a UBC food service gift certificate. The questionnaire could also be hand distributed at different food service locations on campus, to be filled out and returned at the same time.

**Education Piece**

An effective way to convey the importance of the relocalization of the food system is through an educational piece. Our group has chosen to create a poster as the visual education piece, with a sample format in Appendix 3. The objective of the poster will be to inform students and the general public about locally grown food products. A possible slogan to attract people’s attention could be: “Eat thoughtfully, Buy Locally.” The poster would primarily explain what a local food system is, while listing qualitative differences between locally grown food and conventional food products in a table format. In the poster, a few actions that students or the community can take into consideration are proposed as examples to encourage purchasing local food products. By adding statistics of different kinds of locally grown products provide on campus onto the poster, it will make the idea of buying locally more realistic and effective.
It would also be beneficial to hand out and evaluate the awareness questionnaire before the poster is developed. By gauging the awareness and interest level in a local food system, the poster could then be tailored to the needs of the audience. For example, if a low level of awareness was determined, the poster would have to be very straightforward and persuasive in its message, but if awareness was high, the informational content of the paper could be more complex and statistical.

Once developed, the poster would be distributed throughout the campus. The most important locations for the poster to be displayed would be around food service outlets, where people are in the process of making food purchasing choices. After seeing the poster, we hope that they may inquire at the outlet if local food choices are offered. Overall, the purpose of the poster would be to increase awareness about local food choices and the impacts of those choices.

Conclusion

We believe that the re-localization of the UBC food system would contribute to the overall sustainability of the system. According to our ecological, economic and social indicators, we have determined the level of feasibility to be high if:

- 50% of products purchased by UBC food services are available locally
- 10% of total expenditures is towards food procurement is for local food
- there is ≥50% awareness level of the UBC community towards the benefits of purchasing local foods and willingness to do so

Our recommendations to the UBC office of campus sustainability include striving for the following:

- a commitment by food service providers to purchase at least 10% of food locally
- development of food procurement guidelines that include an outline for ethical decision making towards sustainability
- further research on the ecological footprint of local versus global food products
• increased awareness on campus through the use of educational posters and offering more locally produced food

In conclusion, we feel that our recommended methods for next year’s AGSC 450 class provide a solid basis from which to evaluate the feasibility of a relocalized UBC food system. The process through which to determine feasibility is a complex one with seemingly endless factors to take into account. However, the benefits of a more local food system are well worth the time, effort and research.
References


Appendix 1 – Questionnaire: Awareness of a Local Food System

Please check off one box for each question.
(0=highly disagree, 1=somewhat disagree, 2=neutral, 3=somewhat agree, 4=highly agree)

### Attitude

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am concerned with the origin of my food.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am supportive of the development of a local food system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prefer to eat a seasonal diet rather than relying on imported food.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am concerned about the environmental implications of my food choices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that a local food system will not affect the diversity of food available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Belief

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe UBC farm has great community and educational opportunities.</td>
<td></td>
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<td>I believe that purchasing locally grown food contributes to community development.</td>
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<td>I believe locally grown produce is of higher quality than imported produce.</td>
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<td>I believe a local food system will be an important contributor to a sustainable UBC</td>
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<td>I believe UBC should encourage people to buy more locally grown produce.</td>
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### Behaviour

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<tbody>
<tr>
<td>I have purchased from the UBC Farmers' Market.</td>
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<td>I am willing to pay slightly more for locally grown produce.</td>
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<td>My diet usually varies with the seasons.</td>
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<td>I usually try to buy produce that was grown in BC.</td>
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<td>I have participated in UBC farm activity.</td>
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### Identity

1. Gender:
   1> male  2> female
2. Position at UBC:
   1> undergraduate student  2> graduate student  3> faculty  4> other
3. Faculty:
   1> Agricultural science  2> Arts  3> Commerce  4> Science
   5> other (please specify: __________________________)
4. Have you ever taken courses or participated in activities (reading, volunteering, etc) which focus on sustainable local food system?
   1> Yes  2> No

2004-03-18
AGSC 450: Group17

Thank you for taking the time to complete our questionnaire.
The results and analysis of this questionnaire will be available on the AGSC 450 Food System Project Website by December 2004.
Appendix 2 – Questionnaire evaluation guide

Add up score out of 60 to determine level of awareness and feasibility of introduction of local and seasonal food on campus. Total score out of 60:

- 0-15: Indicates a very low level of awareness and interest in the source of food purchased and eaten. Introducing local and seasonal food choices at this time would not be feasible or effective. Introduction on basic educational and promotional tools needed.
- 15-30: Indicates a low level of either awareness or concern for the food system. Introducing local and seasonal food choices at this time would still not be feasible or effective. More education and promotion is needed before the adoption of a local or seasonal diet will be considered.
- 30-45: Indicates a moderate level of awareness and concern for the food system. Further education and promotion of local and seasonal food choices would be very successful in increasing market demand. Introduction of some local and seasonal food choices on campus is feasible.
- 45-60: Indicates a very high level of awareness and interest in the source of food purchased and eaten. Individual is willing to make personal sacrifices to support a sustainable food system and places a high value on sustainability and social responsibility of food choices. Market demand for local and seasonal food choices is high; therefore, it would be economically and socially feasible to provide more local and seasonal food options.
A Sustainable Food System is defined as one where “food is grown, harvested, processed, marketed, sold and consumed as close to home as possible” — “Local Food System”

By supporting locally grown products will:

- Know where your food comes from and how it is grown
- Build connection with the food that you eat
- Increase local economy
- Less traveling time → result in fresher food
- Local farming is more traditional → less pesticide
- Lesser food mileage and usage of fossil fuel for transport.
- Decrease in carbon emission and air pollution

**Actions** you can take:

- Support local farms and food Co-op.
- Purchase fruits and vegetables in season
- Join the Community Supported Agricultural (CSA) program in your community and be involved.
- Encourage more farmer’s markets in your community
- Appropriate use of “Eco-Labels”
- Sell more local food products in grocers
- Promote local food products in school’s meal plan.
Additional websites which could be integrated into the poster:

“Learning About Our Campus Food System”:
http://www.ecofoot.msu.edu/files/pdfs/food.pdf

“Brings local foods to customer”:
http://webhome.crk.umn.edu/nwp/community/posters/SMFN.htm

“Buy locally grown poster”:
http://www.localfoodworks.org/Web/SA/SAWeb.nsf/b663df7c7f96694580256bd8003b9129/840136c465627dc180256e3d003e336b/$FILE/LocGrownOtherColor.pdf

“The Best Tasting Food Ripens Close to Home”:
http://www.localfoodworks.org/Web/SA/SAWeb.nsf/b663df7c7f96694580256bd8003b9129/840136c465627dc180256e3d003e336b/$FILE/TasteColor11.20.pdf

“Plant your Dollars Close to Home”:
http://www.localfoodworks.org/Web/SA/SAWeb.nsf/b663df7c7f96694580256bd8003b9129/840136c465627dc180256e3d003e336b/$FILE/EconomyColor11.20.pdf

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