

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

**The Sustainability of the UBC Food System Collaborative Project III: The Feasibility of
Re-Localizing the Food System**

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AGSC 450

March 31, 2004

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The Sustainability of the UBC Food System Collaborative Project III: *The Feasibility of Re-Localizing the Food System*



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Abstract:

In the third year of the Sustainability of the UBC Food System Collaborative Project, groups have adapted the models developed last year to specific case studies within the UBC food system. Our group has adapted the 2003 group 14's model to analyze the re-localization of the UBC food system, specifically its feasibility and contributions to the systems sustainability. We have conducted preliminary research into these issues in an attempt to determine areas which require further study. We first outline our values and visions of a sustainable re-localized UBC food system. We then present our findings regarding the current food procurement practices of food service providers at UBC. Following this, from a literature review we outline the benefits and drawbacks of re-localization. We examine the barriers to such a shift and the opportunities to overcome these barriers. Based on our findings, we agree that a move towards re-localization is desirable, but that the feasibility is still questionable. We conclude with recommendations for a course of action in year four to begin collecting data in order to further extend our research. It is hoped that this work will enable future groups to positively advance the sustainability of the entire UBC food system.

I. Introduction:

In agreement with Cant et. al. (2003), sustainability is the long term viability of ecological, social, and economic factors and their interconnections. In response to what is widely perceived as a sustainability crisis, the University of British Columbia's (UBC) Faculty of Agricultural Sciences has undertaken a five-year study to assess the sustainability of the UBC food system. The Agricultural Sciences (AGSC) 450 class of 2003 created a series of principles, procedures, indicators and models to assess the sustainability of the UBC Food System. This year, the AGSC 450 class has applied these models to specific case studies, assigned to them by the course instructors. More specifically, our task was to adapt these models to examine the procurement practices of UBC's food service providers, and to discuss the feasibility of re-localizing the food system as a possible contribution to the overall sustainability of the system.

As a group, we decided to adapt the model proposed by Cant et. al. in 2003 (group 14). We realize that a few indicators alone cannot accurately measure all the benefits and drawbacks of a re-localized UBC food system. However, to remain consistent with their model and for simplicity's sake, we have identified three indicators. Cant et. al's use of food miles as an ecological indicator was consistent with our assigned scenario. We also adapted their social indicator to better fit our case; rather than measuring the awareness of nutritious food among the UBC community, we suggested measuring awareness of local food in general. As an economic indicator, we modified their suggestion of the price of nutritious food and instead compared the price of locally produced food and conventional food products.

In order to analyze these indicators, we initiated a comparison between the global and local food systems. To begin extending the UBC Food Service Project beyond the university gates into the global food system, we changed our project focus to include only UBCFS and AMSFB.

This differed from Cant et al (2003), who defined the UBC food system boundaries as being physically inside the university gates and included all of the businesses in the UBC Village. Even though some BC products have further to travel than some Washington products, and much of Washington is more bioregionally similar to Vancouver than most of BC; we considered BC products to be from the “more local” food system, and Washington products to be from the global food system. This was due to economic, marketing, and monetary differences, and ease of data analysis.

1.1) *Value Assumptions:*

It is important to identify inherent values held by the working group in order to provide the reader with the ability to evaluate the research while aware of the possible biases that underlie the work. Our working group holds weak anthropocentric, community-based values. We value our species' survival but recognize that humanity is embedded within an ecosystem; its health is vital to support our survival. Social sustainability is important in the food system but we cannot value it at the expense of ecological integrity. Though we acknowledge that individual freedom is important, we tend to place an emphasis on the collective needs of the community.

These values have guided our work and influenced our approach to the re-localization debate. We see re-localization as a possible means to increase sustainability of the food system, as it has positive effects on both the community and the environment. However, in the context of our community-based values, a barrier to re-localization is its failure to address individual needs and desires; to be sustainable, all members of the community should have access to culturally appropriate food.

1.2) *Visioning a Sustainable Food System*

In agreement with Bouris (2003), our vision of a sustainable UBC food system would include encouraging and maximizing local food production. A re-localized, smaller-scale food system would:

Ecologically:

- Reduce the indirect environmental costs of food processing, packaging, and transportation by reducing the distance food travels from producer to consumer.
- Increase the value of agricultural land and preserve it from further development.
- Conserve biodiversity and reduce the environmental damage associated with intensified monoculture production.

Socially:

- Re-establish the relationship between the consumer and the farmer, thereby giving consumers the knowledge to make informed decisions about their food procurement practices.
- Supply fresher, nutritious, higher quality food which will contribute to the health and physical wellness of the community.
- Focus on empowering community members through enhancing the awareness of local food and its benefits, and building food resources to meet the community's needs.

Economically:

- Increase affordability of food by elimination of middlemen.
- Increase economic returns to local farmers and boost the local economy.
- Maintain and/or improve economic viability for food providers.

II. Findings

2.1) *Procurement Practices*

The procurement practices of the food providers at UBC reflect the standards that all food suppliers must meet. To re-localize the UBC food system, these standards must be maintained. Therefore, it is important that we analyze the current procurement practices before we address the feasibility of re-localizing the food system.

UBC Food Services (UBCFS) and the Alma Mater Society Food and Beverage (AMSFB) are the two main food providers for the UBC food system. The AMSFB follow the procurement standards of the Purchasing Management Association of Canada (P.M.A.C). As a member of the PMAC, a Professional Code of Ethics must be maintained which states that all “members will operate and conduct their decisions and actions based on the values of: honesty/integrity;.... professionalism;.... responsible management;.... serving the public interest;.... and conforming to the law” (PMAC, 2003). Although AMSFB follow the PMAC code of ethics, they do not have set quality standards that their food suppliers must meet. Nick Gregory (2004) from AMSFB, states that buying food items is very subjective and that AMSFB tries to buy the finest quality food in allowance of their budget. The AMSFB obtain food from seven different distributors and attempt to give local producers preference, although this is not a requirement.

The UBCFS obtain their food through a broker and adhere to the standards outlined on the “Request For Bid” (RFB) form (see Appendix 1). These standards state that “the lowest price....will not necessarily be accepted” and that “the University reserves the right to consider without limitation such factors as it deems appropriate before accepting a bid including past performance, capability, reputation, quality, expertise, credit worthiness, value added services, best value to the University, [and the]ability to provide support.” Furthermore, the UBCFB has the right to reject any goods or services and terminate its agreement with a bidder, in the event that any good does not pass the inspection and approval process. Other procurement practices, not outlined in the RFB, include: giving preference to local manufacturers, demanding environmentally friendly and/or reusable packaging, and limiting the truck traffic on campus by reducing the frequency of deliveries and the number of different vendors.

Although both the AMSFB and the UBCFS give preference to local suppliers, neither has a written standard regarding locally grown food. Both food providers agree that there are several

barriers that make purchasing locally grown food unfeasible. Local producers are unable to meet the quantity demanded of these large food service establishments. Other barriers include regular availability, quality, and cost (Yip, 2004).

2.2) *Feasibility of Re-localization*

2.2.1) Contributions to Food System Sustainability

To determine whether a re-localized food system will enhance the sustainability of the UBC food system, it is necessary to examine the benefits and drawbacks. In our analysis, we have conducted a literature review and included the three imperative elements of sustainability: environment, social, and economic issues.

Benefits

A re-localized food system would be beneficial to the environment because it reduces the indirect environmental cost of food processing, packaging and transportation (Leiblein, 1996). Unlike imported food, locally produced food travels fewer food miles and can be delivered fresh to the producers, which eliminates the need of extensive processing and packaging. This will reduce our dependence on fossil fuels, decrease carbon emissions and help address the environmental problems associated with climate change.

A re-localized food system would also increase the value of agricultural land and preserve it from further development. The maintenance of active agricultural land in small-scale farms benefits the environment because it maintains biodiversity and reduces the environmental damage associated with large-scale, intensified production. Green spaces also enhance the aesthetic appeal of the community and create a more rural, relaxed, atmosphere.

The global food market has not only increased the spatial distance between the farmer and consumer, but it has also created a “psychological detachment from our source of food, creating a distance of mind” (Lieblein et. al., 2001, pg 61). Our food no longer has an identity of origin, and in the words of Kloppenburg “food comes from a global everywhere, yet from nowhere that people know in particular” (Lieblein et. al., 2001, pg 62). This is a social concern because few consumers understand the parameters and implications of food production in the global food system (Kloppenburger et al, 1996).

A re-localized food system would benefit the social sustainability of a food system by re-connecting the consumers and the farmers. Consumers will have increased awareness and subsequently have the power to make informed decisions about their own food procurement practices and have the ability to support a more sustainable food system. Such a system would also provide fresher, higher quality food as the time span between harvest and consumption is reduced. Thus, a re-localized food system will contribute to the health and physical wellness of the community through the provision of quality, wholesome food (Kloppenburger et al, 2000).

A re-localized food system increases the economic returns to the local farmer and boosts the local economy (New Economics Foundation, 2001). By supporting local farmers, consumers invest in the future health and sustainability of their community. A re-localized food system can also decrease the upstream expenditures on advertising, packaging, processing, and transportation (Pretty, 2001) by eliminating middlemen. This will help reduce the cost of food production.

Drawbacks

There are numerous drawbacks that may reduce the success of a re-localized food system by rendering it unsustainable. A re-localized food system increases a community's self-reliance. As a consequence, the community is confronted with the new challenge of managing resources such as water, soil, and energy. In a re-localized food system, "community's members have a collective responsibility for the stewardship of the environment as it becomes a necessity rather than an optional virtue." (Kloppenburg et al, 1996, pg 10)

A local food system does not ensure that all individuals can obtain a nutritionally adequate, culturally acceptable diet at all times (Lyson and Green, 1999). Food production in a local food system is restricted by seasonal variation, climate, soil resources and topography. Compared to a global food system, the diversity of crops available locally at any given time will be reduced (Lyson and Green, 1999). A re-localized food system therefore may not be socially acceptable because it does not guarantee food security.

Giant food corporations are structured for economic efficiency and threaten the viability of a re-localized food system. Small, localized producers cannot compete with large corporations. They are less efficient, more labor intensive, and have greater transaction costs which exceed the expenditures that corporations spend on advertising, packaging, processing and transportation (Lyson and Green, 1999).

A re-localized food system creates new jobs while simultaneously cutting others. Employment in the upstream input supply industry and in the downstream transport, packaging, and processing business will be lost. A re-localized food system creates new jobs in the agricultural sector and is beneficial if unemployment rates are low (Pretty, 2001). However, this is a problem if labor shortages exist as a local food system is unsustainable if it cannot function at its optimal capacity (Pretty, 2001, pg 9).

2.2.2) Opportunities for local food procurement

Volume

The volume requirement of the UBC food system is a barrier to the development of local food procurement practices. The UBC food system can serve up to 51, 000 people on any given day, including 35, 000 students, 7, 454 faculty and staff, and over 10, 000 permanent residents (City of Vancouver, 2003). UBC requires consistent, large quantities of quality food to serve their clients.

To determine if British Columbia's food production industry can meet the needs of the province including the University of British Columbia the production capacity of the B.C. food system has to be analyzed. British Columbia produces 2.7% of the total volume of Canadian field vegetable crops, with 75% of production located in the Lower Mainland (Ministry of Food and Fisheries, 2003). A variety of fruit and vegetables crops are produced in BC in varying quantities (see Appendix 2), yet Canada and British Columbia are net importers of fresh and processed field vegetables. In 2002, BC's total imports of fresh and processed field vegetables were approximately \$332 million and exports were only \$32 million. The main suppliers of imported produce are the United States and Mexico which make up 80-85% of all imported field vegetables (BC Ministry of Agriculture, Food and Fisheries, 2003). There are approximately 500 commercial field vegetable producers and numerous small farming operations across BC that produce 311, 986 thousand pounds of field vegetables. BC's tree fruit and berry/nut industry consists of a significant number of small-scale operations, producing approximately 374, 170, 000 and 170, 530, 000 pounds of produce respectively in 2001 (BC Ministry of Agriculture, Food and Fisheries, 2001).

BC produces a significant amount of produce that is sold locally (within BC), across Canada and internationally. The BC vegetable marketing commission (BCVMC) is a governing body that regulates the sale and production of many vegetables including storage types and lettuces. The BCVMC is responsible for stabilizing prices and product marketing. It also creates a link between buyers and producers, creating opportunities for buyers to purchase large quantities of local produce. All producers in BC must register with the BCVMC to benefit from their services. (BC Ministry of Food and Fisheries, 2003). With proper management, there is potential to expand production volume leading to the development of additional local procurement practices at UBC and across the province (BC Ministry of Agriculture, Food and Fisheries, 2003).

Seasonality

Seasonality and BC weather patterns limit the variety, availability, and volume of crop yields, consequentially creating fluctuations and inconsistencies in our local food supply (BC Ministry of Agriculture, Food and Fisheries, 2003). There are a wide variety of fruits and vegetables produced during the summer months in BC (see Appendix 2) but this variety is limited in production during the winter (BC Association of Farmers' Markets, 2004). A conflict arises between what local producers can provide and what consumers demand. This occurs as our society has become accustomed to having a wide variety of fresh fruits and vegetables available to them throughout the year. Although fruits and vegetables' availability varies throughout the year in BC, many vegetables and fruits can be stored (potatoes, cabbage, apples, beets, rutabagas and carrots) or grown in greenhouses (cucumbers, tomatoes, peppers, lettuce), allowing consumer demands to be met more consistently.

Price

According to Pretty (2000), opportunities to lower the price of food through re-localization of the food system are centered on the sustainability of local farms, which must accumulate capital in order to succeed. The five different forms of capital include: natural, social, human, physical, and financial. Pretty (2000) outlines five options for food production that increase capital accumulation by farmers: (1) adopting sustainable agriculture, (2) direct selling from farmers to consumers, (3) enhancing farmers' and consumers' links with community co-operatives, (4) promotional development of farmer to farmer extension and marketing groups, and (5) adopting "buy local" and "eco-friendly" marketing, advertising, and labeling schemes.

The adaptation of these initiatives, as recommended by Pretty, could increase the consumption of locally produced food while simultaneously lowering the price to consumers. This can be achieved by :

- Buying in season food locally, which will reduce the cost of storage.
- Buying food directly from the producers will reduce the downstream expenditures (processing, packaging, and transportation).
- Charging an un-sustainability tax premium, for non-local and unsustainable food production. This, will economically encourage consumers to buy locally (Pretty, 1995).
- Developing a "buy local" and "eco-friendly" marketing, advertising, and labeling campaigns to raise public awareness of food issues and encourage support for local agriculture. (Feenstra, 1993; Pretty, 2000).
- Seeking partnerships between local farmers and UBC which will diversify and stabilize UBC's food system. This will allow us to determine which food procurement strategy can provide quality food at a reasonable low price. The partnership should also include research and extension services to local farmers, to develop more resilient and successful farming systems (Feenstra, 1993; Pretty, 2000).

III. Discussion

Based on our findings, a re-localized food system will contribute to ecological and social sustainability of the UBC food system, however the economic sustainability is more difficult to discern.

From an environmental perspective, re-localization increases the community's role in regulating the food system through self-management of natural resources. In addition, it helps decrease transporting and packaging costs through a reduction in food mileage. It also reduces greenhouse gas emissions from the burning of fossil fuels, and enhances the preservation of farmland. In short, food re-localization has more environmental benefits than drawbacks and therefore contributes to the sustainability of the food system.

Socially, factors such as climate and soils may restrict a local food system via its reduced diversity of crop products, leading to decreased cultural acceptability and therefore food security. Nevertheless, this may be offset by the increased diversity of processed food products created by many small regional processing firms (Lyson & Green, 1999). Local food production helps strengthen the interactions between producers and consumers. It allows for greater decision-making power through cooperation and collaboration with each other and with other sectors of the food system and community (Lyson & Green, 1999). The freshness and taste of food is enhanced as the time for transporting and preserving is reduced. This contributes to the food's overall quality and consumer health and acceptance. Thus, socially there are great sustainability benefits to re-localization.

Economically a local food system returns to the farming sector have great potential because farmers can retain control over marketing and pricing. The local economy would also be supported and strengthened by a re-localized food system. However, the same system may have

a relatively high transaction cost due to its many small firms. Local food production may reduce the numbers of jobs available in both the upstream input supply industry and downstream production and distribution businesses. In addition, a re-localized food system may encounter problems such as labor shortage, especially when people are attracted elsewhere by greater income opportunities. This may affect the food system's maintenance. Economically, the negative effects of a local food system may outweigh its benefits; putting its sustainability in question.

In the short term, the feasibility of a re-localized food system is still questionable. Developing a connection between UBC and local food producers could potentially provide the volume of food UBC needs, although further study is needed to determine this more accurately. After speaking with both the AMSFB and the UBCFS, we understand that there are concerns about sustainability and that buying locally is favorable if it is consistent with their economic bottom line. Although not currently possible, we feel that locally produced food could be economically feasible in the long-term if current opportunities including seasonality, volume and price are explored and properly managed. However, again, further study is required in this area.

IV. Recommendations for Future Study

For the future 450 class, we suggest a more analytical study which attempts to further address both the procurement practices at UBC and the feasibility of re-localization. We recommend focusing research on determining raw food items to refine food origin analysis methods, which can then be applied to more complex scenarios such as processed food products. Collaboration with groups working specifically on food miles (who have already developed a data-collection scheme) could result in the measurement of food miles for the most popular produce items. Further information on procurement practices would require the UBCFS velocity summary report to be standardized and summed, as in its current state it is not easy to apply. Once this has

been accomplished, statistics on local production could be compared to determine whether re-localization is feasible in terms of volume and seasonality. A similar process would also be used for AMSFB. A sample matrix has been provided to aid in this analysis (see Appendix 3). By analyzing BC production statistics in terms of volume and seasonality, next year's class could offer suggestions about the most effective procedures for local food procurement, and possible agencies/cooperatives that could be approached. Findings from this analysis could then be used to help draft written policies for UBCFS and AMSFB regarding local food procurement commitment levels.

We also recommend the use of a survey to gain information regarding awareness of local food in the UBC community. Such surveys should measure the knowledge of the benefits and drawbacks of local food, the consumer's willingness to pay for local food, as well as the acceptability of a more seasonal menu plan. A sample survey can be found in Appendix 4.

To further examine re-localization from an economic standpoint, we suggest gathering information on the price of local produce versus conventionally sourced produce. This would be as simple as identifying both seasonal and non-seasonal produce, and comparing prices from various local and non-local sources. The price of food items should be gathered multiple times throughout the year to account for seasonal variation. Again, a sample matrix to aid in this data collection has been provided in Appendix 5.

An important analytical tool that future AGSC 450 classes could use is a marketing chain analysis. For each product that UBC consumes, a flow chart (model) could be created to show the path(s) that each product follows (see sample in Appendix 6). As food passes from producer to consumer, it gets traded between a myriad of processors, traders, exporters, wholesalers, and retailers, which adds cost at each step, to pay income to middleman. An analysis of the gross and net profit margins at each step in the marketing chain would provide valuable information to the

UBC and the AMS food services, as a streamlining of the marketing chain might reduce the cost to the consumer. We feel that if these recommendations are followed, a much clearer picture of the current procurement practices at UBC and the feasibility of re-localization can be obtained.

V. Recommendations for Increasing Sustainability via Re-localization

We feel that the best way to initiate a change in the food system is through a combination of education and action. Education on the benefits of locally grown food, as well as on seasonal food variation is important in working towards a re-localized system. We would like to encourage local purchasing decisions, as well as local production through community, personal and rooftop gardens, as well as local farms.

UBC should strive to reduce the number of hands through which food passes; aiming to, among other reasons, reduce the price of food. We recommend that UBC's two major food providers (UBCFC and AMSFB) modify their food procurement standards, to include a clause which requires them to purchase a certain percentage of local food. For example, the policy could make it mandatory for UBCFC and AMSFB to purchase 50% of their summer produce from a local source. Local buying policy written into the UBCFC and the AMSFB procurement practices should be developed. For example, 50% of summer produce must be of local origin and 20% for winter produce. By setting this policy a message is given that buying from and supporting the local community is important. This could be aided by a partnership with BCVMC which could shift its focus to selling and marketing locally, moving towards a more stable food system in BC. The UBC Farm could also take a greater part in the UBC food system by selling more of its produce through AMSFB and UBCFS. Having guaranteed customers makes it more feasible for the farm to increase production as there is the assurance that their produce will be sold.

In addition, we feel that exploring the option of altering menus to provide more seasonal choices will benefit the sustainability of the food system here at UBC. For example, during the winter season menus could highlight stored vegetables and greenhouse produce from local farms. Ultimately, we feel that encouraging local production and consumption will promote a more sustainable system and provide many benefits to the local community.

VI. Conclusion

According to our preliminary research, a re-localized food system is sustainable to a certain extent based on the economic, environmental, and social benefits previously discussed. However, we are aware that some drawbacks exist that limit the sustainability and feasibility of a re-localized food system. Our weak anthropocentric, community-based values reflect our desire to move towards a more localized food system due to the benefits to local farmers, workers and consumers. Although we will never reconstruct a completely localized food system, we should move towards creating a more self-sufficient and community serving food shed.

Assessing the feasibility of re-localizing the UBC food system is a difficult task as there are a number of variables. We have selected what we feel to be a good starting point in this analysis, and have made recommendations for further study which address the barriers to re-localization we have encountered. Our work has created a platform from which further study can be launched to analyze and improve the overall sustainability of the UBC food system.

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VIII. Appendix 1: UBC Food Services Purchasing Department Request for Bid Form

Title:	
To:	Buyer: Dorothy Yip
(the "Bidder")	Tel: (604)822-0125 Fax: (604)822-4152

NOTICE TO BIDDERS:

1. **This is not an order.** It is a request that you submit a bid for goods and/or services on the terms set out in this Request for Bid.
2. The lowest or any bid will not necessarily be accepted, and the University reserves the right to consider without limitation such factors as it deems appropriate before accepting a bid including, past performance, capability, reputation, quality, expertise, credit worthiness, value added services, best value to the University, ability to provide support etc.
3. The University reserves the right to accept a bid in whole or in part, unless the Bidder specifies that the bid must be accepted in its entirety.
4. A bid shall include a full description of the materials and services supplied, including any descriptive literature, and shall set out full particulars of any warranties or guarantees.
5. All bids are made F.O.B. the Destination Loading Dock at The University of British Columbia, unless otherwise specified, and all crating, packing, insurance while in transit, and cartage costs are included in the bid. All goods remain at the risk of the Bidder until accepted at the designated Destination. Shipping and insurance costs shall be separately identified as "Freight".
6. The General Terms and Conditions set out as attached on this Request for Bid, form an integral part of the bid, and the Bidder acknowledges that the inclusion of such terms and conditions is a condition of acceptance of any bid by the University.
7. Any agreement arising from acceptance of this Request for Bid shall be governed and construed in accordance with the laws of British Columbia save and except The International Sale of Goods Act, which is hereby excluded from this Request and any subsequent contract which may be formed and the parties attorn to the Courts of British Columbia.

THE BIDDER OFFERS TO SUPPLY TO THE UNIVERSITY THE GOODS AND / OR SERVICES LISTED BELOW, AT THE PRICES SHOWN, SUBJECT TO THE TERMS AND CONDITIONS IN THIS REQUEST FOR BID AND ANY ADDENDUM ANNEXED HERETO:

General Terms & Conditions

- 1) Bids must be received at the Food Services Purchasing Office (address shown on page one), on or before the closing date and time. Whether or not sealed, all bids must be signed by an authorized person. Self-addressed envelopes will be provided for sealed bids, and sealed bids must be returned in these envelopes. The Bidder shall make and retain a copy of any bid submitted as the University will be retaining all Bids received.
- 2) The University reserves the right to award no contract to any bidder, and is not responsible for the bidder's costs associated with preparing its response to this bid.
- 3) Upon issuance of official Purchase Order, this Request for Bid, including these General Terms and Conditions and any addenda annexed hereto and initialled by the Bidder, shall form the entire contract between the University and the Bidder with respect to the goods and/or services specified herein. There are no terms, conditions, agreements or understandings between the parties save as set out herein or as may be implied by the *Sale of Goods Act*.
- 4) In the event of conflict between these General Terms and Conditions and any other part of this Request for Bid, including any addenda, such other part shall govern. In the event of conflict between the first page of this Request for Bid and any addenda, the first page shall govern. Oral communications shall not, under any circumstances, create an agreement with the University or amend the terms of any existing agreement.
- 5) Unless otherwise stipulated in an addendum issued by the University hereto:
 - (a) the bid price includes all applicable duties but not Goods and Services Tax or Provincial Sales Tax;
 - (b) the bid price includes all permits, licenses, patent rights or other rights required to use and enjoy the subject goods and/or services without further payment by the University;

- (c) the bid price cannot be revoked for a period of 45 days from the Bid Closing Date;
 - (d) no price increase over the bid price shall be payable by the University unless accepted in writing; and
 - (e) payment shall be made by the University net 30 days from the later of acceptance of delivery and date of invoice.
- 6) The University reserves the right to cancel any order made by it if not filled by the specified date, or when no date is specified, within a reasonable time following the date of the order, without prejudice to any claim the University may have for default by the Bidder. Time is of the essence.
 - 7) Each delivery is subject to inspection and approval, notwithstanding prior payment, and in the event any good is properly rejected, Bidder is responsible for all costs and risks associated with the rejected goods, before, during and after delivery. If any goods or services are rejected, the University reserves all rights, in addition to the right to terminate its agreement with the Bidder in respect of future deliveries. No disclaimer or limitation of liability contained in any document submitted by the Bidder to the University, other than this Request for Bid, shall be effective, unless specifically agreed to by the University in writing.
 - 8) The University reserves the right in its sole discretion to waive any non-compliance by a Bidder with the requirements of this Request for Bids in order to obtain the best overall value to the University. The University reserves the right in its sole discretion to clarify any bid after the closing date and time or to negotiate with one or more bidders after close of bidding without becoming obligated to offer the same opportunity to any other bidder(s).
 - 9) The University reserves the right to audit the successful bidder for the Duration of Contract.
 - 10) The following warranties shall apply to any goods or services supplied or delivered pursuant to an accepted bid:
 - (a) all terms, conditions, warranties, and undertakings implied by the *Sale of Goods Act* (British Columbia) shall apply, save as expressly qualified in any addendum hereto;
 - (b) all services provided shall be performed in a good and workmanlike manner by qualified personnel;
 - (c) all goods shall be free and clear of any liens, claims, security interests or rights in favour of any third person;
 - (d) the Bidder shall comply with all applicable laws, ordinances, rules, building codes and regulations, whether Federal, Provincial or Local;
 - (e) the Bidder shall pay its employees, subcontractors and suppliers as and when due, and make all necessary payments, withholdings and remittances to all applicable governmental agencies, including Workers' Compensation Board, Revenue Canada and Canada Pension Plan, and shall comply with all applicable employment and workplace safety standards;
 - (f) all electrical equipment shall have been approved by the Canadian Standards Association and/or Province of British Columbia Electrical Safety Branch;
 - (g) the Bidder shall be solely responsible for obtaining and maintaining all necessary building and other permits, licenses and approvals for performance of its obligations, including any final occupancy permits, required in order for the University to use and enjoy the subject goods and services;
 - (h) the goods and materials sold are manufactured without violation of any intellectual property rights of any person.
 - 11) The Bidder shall indemnify and hold harmless the University, its Board of Governors, employees, students, servants or agents from any loss, damage, demand, or claim (including in respect of physical injury or death) arising by reason of any breach of this Request for Bid or the agreement arising on acceptance hereof or arising from the negligence or wrongful act of the Bidder or its officers, directors, employees, servants, agents or subcontractors and the Bidder shall reimburse the University, on a full indemnity basis, in respect of all legal fees and disbursements incurred in respect of the foregoing indemnity.
 - 12) The Bidder shall provide general liability insurance including product(s) liability in an amount not less than \$ 5,000,000 (5 million dollars) per occurrence until all goods and services specified herein have been delivered and consumed.
 - 13) The University may terminate the agreement arising on acceptance of the Bidder's bid at any time the University determines that the goods or services provided by the Bidder are unsatisfactory or if a receiver is appointed in respect of the Bidder; the Bidder is adjudged bankrupt or insolvent or makes a proposal or assignment in bankruptcy or an application under the Companies' Creditors Arrangement Act; or if a petition is filed against the Bidder or other proceedings are commenced against it under the Bankruptcy and Insolvency Act which remain undismissed after 60 days.
 - 14) The University supports the principle that Canadian companies are to be given preference when all other conditions as assessed by the University are equal.
 - 15) All perishable products and/or products intended for human consumption must be supplied from a Federal and Provincial Government inspected plant. Handling and transport to U.B.C. Food Departments must comply with these regulations.

Bidder To Complete

Delivery Date:

The prices set out in this Request for Bid are firm until 5:00 p.m. Vancouver time on [February 28, 2002]and any bid submitted by the Bidder is irrevocable until that time. This page of this Request for Bid and any addendum thereto must be signed by the Bidder. The Bidder confirms that the Bidder has read all pages of this Request for Bid and all addenda.	
Dated:	At:
Signature:	If the Bidder is a company, your signature confirms you have the legal authority to bind the Bidder.
Print Name:	Phone No.

IX. Appendix 2: Seasonal Produce Guide

Farm Fresh Product Guide (<http://www.bcfarmfresh.com/charts.html>)

Availability Chart *B.C. Fresh Fruits*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Apples												
Blackberries												
Blueberries												
Cherries (pie)												
Currants												
Gooseberries												
Hazelnuts												
Pears												
Plums												
Prunes												
Raspberries												
Saskatoons												
Strawberries												

Availability Chart *B.C. Fresh Fruits and Vegetables*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Beans												
Beets												
Broccoli												
Brussels Sprouts												
Cabbage-red												
Cabbage-green												
Carrots												
Cauliflower												
Celery												
Chinese Vegetables												
Corn												
Cucumbers-field												
Leeks												
Lettuce												
Onions-green												
Onions-red/ yellow												
Parsnips												
Peppers-field												
Potatoes												
Radishes												
Rhubarb-field												
Rutabagas												
Spinach												
Turnips-white												
Zucchini												

X. Appendix 3: Volume and Seasonality Matrix

Item	Qty. Req'd. from VSR	Qty. Produced in BC	Seasonal Availability
Spartan Apples	###	###	? Sept. - May
Russet Potatoes	###	###	
Bananas	###	0	N/A
etc.	etc.	etc.	etc.

Sources:
UBCFS Velocity Summary Report
MAFF statistics available at
MAFF Factsheet (see references)

XI. Appendix 4: Local Food Survey

I. Willingness to pay for locally produced food

Circle

- I. Are you willing to pay more for food that is produced locally? Yes
No
- II. If yes, how much more would you be willing to pay? up to 5%
up to 10%
up to 20%
> 20%
- III. Do you consciously look for labels regarding food origins? Yes
No
- IV. Do you think that current food labels supply consumers with
sufficient information to make informed decisions about their
food purchases? Yes
No
- *If No please elaborate*
-

II. Acceptance of a seasonal menu

The growing season in BC is limited by seasonal variation. Therefore consumers cannot expect local producers to supply them with a constant variety of fresh produce throughout the year. If consumers wish to support local food producers, they must be willing to adapt a seasonal diet.

1. What percentage of food do you consume that is imported? 100%
75%
50%
25%
0
Unsure
2. Would you be willing to give up some imported foods in
favor of more local produce? Yes
No
3. Are you familiar with the concept of seasonality in relation
to food? Yes
No

III. General Attitudes

- | | |
|---|--------------------|
| 1. How much do you value food variety? | High
Med
Low |
| 2. Do you make a conscious effort to purchase seasonal produce? | Yes
No |

IV. Seasonal Diet

- | | |
|--|-----------|
| 1. Are you willing to refrain from eating broccoli 7 months of the year? | Yes
No |
| 2. Are you willing to refrain from eating carrots 6 months of the year? | Yes
No |
| 3. Are you willing to limit your vegetable intake, between March – June, to only beets, red-cabbage, leeks, lettuce, potatoes, radishes, spinach, Chinese vegetable, green onion, white turnip, and field rhubarb? | Yes
No |

V. Knowledge of locally produced food

- | | |
|---|--|
| 1. Do you know what locally produced foods can be purchased during the winter months? | Bananas
Potatoes
Oranges
Apples
Cabbage
Tomatoes
Asparagus |
| 2. Do you feel there are adequate resources providing you with information about locally produced food and your food system in general? | Yes
No |
| 3. If you answered <i>No</i> to the above question where could improvements be made? | |
-

XII. Appendix 5: Price Comparison Matrix

Season: Spring / Summer / Fall / Winter

ITEM	LOCAL PRODUCER	MARKET PRICE	NON-LOCAL PRODUCER	MARKET PRICE
Spartan Apples	Hayter Orchards Ltd. - Okanagan	\$\$\$	Happy Apples - New Zealand	\$\$\$
Russet Potatoes	John Doe - Delta	\$\$\$	Mr. Spud - California	\$\$\$
etc.	etc.	etc.	etc.	etc.

XIII. Appendix 6: Sample Marketing Chain

Figure 4-3. Marketing Chain for Rice, Atebubu District, Ghana
 the numbers indicate where the percentages of volumes of rice go
 Note: an assembler is a trader/businessperson

