UBC Social Ecological Economic Development Studies (SEEDS) Student Report

# The Sustainability of the UBC Food System Collaborative Project III Scenario #8

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**University of British Columbia**

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Agricultural Sciences 450

# The Sustainability of the UBC Food System
# Collaborative Project III

Scenario #8
Group 2

March 31, 2004

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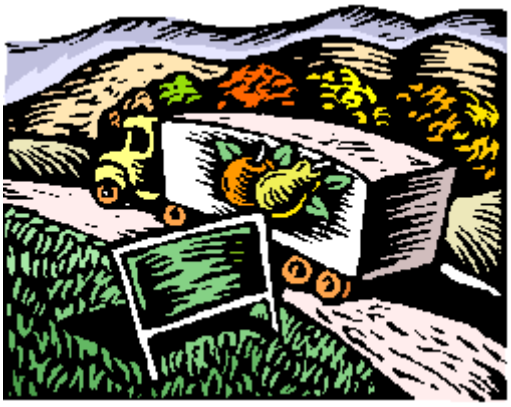

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# Abstract

The Faculty of Agricultural Sciences is the first educational community at the University of British Columbia (UBC) that recognizes the importance of evaluating the sustainability of the entire food system. In order to fulfill the goals for the five year study of the UBC food system, the Agricultural Sciences 450 (AGSC 450) class of 2004 is appointed to develop appropriate research methods for use by future AGSC 450 students in the continuation of the pilot study. The specific task for our group is to establish a method of eliciting the perceptions of UBC customers within the campus community in regards to the pricing of food. Our ultimate objective is to move towards a more sustainable food system, while keeping a balance of benefits between UBC food customers and suppliers. The model developed by Group 14 in 2003 is the best representation of our group vision of sustainability and thus we chose it to assist our research design. Any critical analyses and assessments require us to acknowledge our underlying ethical perspectives. A weak anthropocentric view is reflected in our research methods, as our group is in consensus that meeting basic human needs shall only take priority if extreme exploitations of our natural world are avoided. Therefore, we have attempted to incorporate the ecological aspects of sustainability, as well as the social and economic aspects into our research instruments. Since Group 14 indicators are designed to assess the sustainability of the entire UBC food system, it is necessary to further expand on their indicators in order to specifically determine the perceptions of customers regarding the price of food at UBC. We have designed two questionnaires and an interview guide that target the UBC community. The accumulated results of these research tools will become important inputs for our chosen economic models. These economic models are critical instruments for evaluating the benefits and costs of implementing plans for a more sustainable food system. At this stage, we lack

information and evidence to succinctly state the basic problems regarding food prices at UBC. Our group hopes that after conducting our methods of research and benefit-cost analysis we can both adequately define whether customers have issues with current food prices at UBC and assess whether a change in prices to reflect the implementation of sustainability practices will be accepted.

# Introduction

The Agricultural Sciences 450 class of 2004 has been assigned the task of using a previously developed model to further assess the sustainability of the UBC food system. The mandate of this year's class is to develop appropriate research methods for use by future AGSC 450 students in the continuation of the UBC Food System Study. Specifically we have been asked to establish a method to qualitatively measure the perceptions of UBC customers regarding the prices of food at UBC. We have chosen the model developed by group 14 in 2003 to guide our research design as it best represents the vision of sustainability held by the members of our group. Furthermore, we identify with the problem definition outlined by this model and feel that it truly encapsulates the underlying need for our research. As stated by our colleagues, "there is a need to explore not only the individual components [of the food system], but the myriad of interactions that take place between them." (Forbes, et al., 2003, p.3) This system wide assessment requires an analysis of the separate elements that comprise the food system, taking into account the different social, economic and ecological perspectives. The importance of both their inter-relationships and their competing values to the sustainability of the system as a whole must be considered when developing our research instruments so its influence becomes apparent in the results of the study.

## Problem Definition

Our specific problem definition encompasses the needs of three different groups: UBC Food Services, Alma Mater Society (AMS) Food Services, and UBC customers. The central research question involves developing a method to elicit the perceptions of UBC customers regarding the price of food at UBC. In the context of moving towards sustainability, a study of price perception entails examining the economics of adopting more sustainable food purchasing policies for campus food services. It also concerns the identification of ways in which to establish "full" costs and benefits with respect to the entire cycle of food production, packaging, transportation, marketing, distribution, and waste disposal. Previous market research commissioned by UBC Food Services has neglected to address the issue of price perception in the context of sustainability. In light of this, our problem lies in developing comprehensive research tools to correctly assess price perception and its relationship to consumer purchasing behavior. We do not believe that we can adequately define 'the problem' regarding food prices, if a problem even exists, until the results of the research proposed in this paper are revealed. Following this, future students can recommend to UBC and AMS Food Services specific changes to food prices that our surveys indicate consumers are willing to pay, in order to gain a greater degree of food system sustainability on campus.

## Rationale for Research

The primary motive for conducting this research is to assess the current and potential market for sustainable food products at UBC, while also identifying the impact of the availability of such products on consumer purchasing behavior. Viewed in the paradigm of the business world, this information is vital because it provides insight into the economic feasibility of shifting to more sustainable food products and practices. This knowledge can guide the future decision making processes of the UBC and AMS Food Services in this newly emerging area of interest and minimize the financial risks inherent in implementing unproved products and procedures. The UBC students, staff, faculty and residents will also benefit from participation in the study as it gives them a forum to make their opinions heard and the opportunity to be influential in any changes that they desire be made. The ultimate objective is to provide food that reflects the values of its participants, at prices that are both affordable to the consumer and

supply a profit to the stakeholders.

## Value Assumptions

In order to critically assess our given scenario, we must first clearly outline our underlying ethical perspectives. Even though the members of our group have various educational and cultural backgrounds, resulting in different points of view with regards to sustainability, we all agree that each individual holds a weak anthropocentric view. This is partially due to our shared belief that meeting basic human needs takes priority over other species, however not at the expense of excessive environmental degradation (Bomke, Rojas & Skura, 2000). It is important to maintain our natural resources for use by future generations and for the sake of all life forms. We believe that the natural world has intrinsic value beyond its use as a resource for the satisfaction of human needs, wants and desires. However, we can neither avoid the influence of a society that emphasizes the individual, (Forbes et al., 2003) nor can we ignore the importance of the economy in our capitalist society. Since money can be viewed as the only well understood and universal yardstick of value we have (Hillier, 1999), it has a major influence on the choices we make. Our anthropocentric views limit our ability to think about the world in a holistic sense, because of the high value placed on the economies that drive our global systems. Specifically related to our project, food is given a price value that does not accurately reflect the labor, transportation or environmental costs that went into bringing that item to the table. And yet, the paradigm we prescribe to states that as long as there is equal access to the food and the prices are affordable to most of the population, the processes in between the farm and the consumer are inconsequential.

As a group, we believe that a community-based approach will foster sustainability.

However, in our scenario, the data is collected by surveying the UBC consumers and thus focuses heavily on individual desires rather than what would be healthy for the community as a whole. To further the drive for sustainability, we must assess whether the majority of the people attending UBC will be willing to recognize the need to make changes in the community. Only by combining individual efforts can we hope to provide enough incentive for the stakeholders to begin taking the steps towards creating a more sustainable food system.

## Indicators of Group 14 (2003)

In order to assess the sustainability of the UBC food system, group 14 identifies three indicators that are designed to "measure progress, explain sustainability, educate communities, motivate people, and focus action" (Forbes et al., 2003). Each indicator encompasses the ecological, economic and social components of sustainability, acknowledging their interrelatedness as each sector exerts an influence on the other resulting in a complex network of relationships.

Last year's group chose food mileage of produce consumed at UBC as their measure of ecological sustainability. Food miles are indicative of how much fuel has been utilized in order for UBC to have access to various types of food items. In addition to fossil fuel abuse, food that has traveled vast distances takes business and jobs away from local farmers and markets. Globalization continues to increase with local products being readily transported throughout the world, contributing to the separation of people from their food. Thus, it becomes increasing difficult to determine the origin and processing methods used to prepare the food, possibly compromising the health of communities as the product loses integrity. As these factors exert larger influences on the food system, sustainability decreases ecologically and socially.

As indicated by Group 14, an increased awareness of nutritious foods among the UBC community is a measure of social sustainability, as it enables the members of the system to make well-informed decisions regarding their own personal health. Once people make the conscience decision to become more informed about the food they choose, they will have a broadened knowledge base regarding the types of food they should consume and therefore purchase.

To indicate economic sustainability, group 14 chose to evaluate the percentage of income spent on food by UBC residents. This measure reflects the degree of food affordability on campus relative to food prices off campus. We deem that the prices of food at UBC are extremely important in evaluating the economic sustainability of the system. The prices of food should be delicately balanced between how much consumers should have to pay and how much profit the suppliers should make. If too much is being spent of food, especially if it is not nutritious, the community level of food security is compromised, linking economic sustainability back to social sustainability.

# Proposed Indicators of Group 2 (2004)

Our group feels that group 14's indicators are designed to assess the sustainability of the entire UBC food system, and thus are not meant to specifically determine the perceptions of customers regarding the price of food at UBC, necessitating that we elaborate further on them. We feel that surveying the UBC community would be an appropriate means of accomplishing this task. **Ecological sustainability** will be indicated by the level of awareness surrounding locally produced food and the willingness to pay for such items that are connected with decreased food miles. To assess **nutritional awareness** among UBC community members, we have included survey questions regarding food safety, variety of food available and overall satisfaction with the UBC food system. If customers are generally pleased with the food at UBC, then the food providers are addressing the social needs of their customers. In order to measure **the economic sustainability** of the system, our group has designed questions to understand whether customers are satisfied with the prices of food on compared to off campus. A food system cannot be viable if the consumers are not able to afford the food or the prices are deemed too high. Our indicators are designed to directly measure the sustainability of the system through garnering customer opinions and assessing the level of cooperation with respect to the patrons of UBC. Without consumer compliance for adopting more sustainable food purchasing policies, the food system will falter if stakeholders make changes without consultation.

# Models

In addition to data that can be extrapolated from surveys and interviews it is important to objectively assess the costs and benefits associated with adopting more sustainable food purchasing policies. The demand and supply models are the most basic, and at the same time, the most crucial of the economic models. This is because they allow us to understand both the consumers' and producers' decision making process. Consumer decisions are mainly determined by demand. A rational consumer will purchase a good as long as the price does not exceed the willingness to pay for a commodity. In our project, it is important for us to determine UBC customers' willingness to pay for food that encompasses sustainability practices on campus. By knowing the potential decisions or food choices of UBC customers, we can assess the costs and benefits with respect to these choices. Furthermore, the supply model tells us that the producers' decisions, unlike the consumers, depend on the total cost of supply. A rational producer will produce up to the point where costs and revenues are equal (van Kooten, 1993). After knowing

the maximum quantity a producer can supply, we will know the price/quantity allocation; that is, the price and quantity of a food commodity with respect to the consumers and producers' decisions.

Project evaluation is a relevant economic term used to describe the process of identifying the costs and benefits and assessing the effectiveness of a particular system. This makes cost-benefit analysis (CBA) and cost-effectiveness analysis (CEA) important economic tools in our case, as we need to evaluate the costs and benefits for adopting more sustainable food purchasing policies. CBA estimates and totals up the equivalent money value of the benefits and costs to the community of potential interventions, to establish whether they are worthwhile. Since there are no standard units to measure social and environmental costs and benefits, the most convenient one to use is money. This means that all benefits and costs of a project can be measured in terms of their equivalent dollar value. This valuation reflects preferences revealed by choices that have been made as shown in the demand/supply model (van Kooten 1993). If the benefits exceed the costs, we can assume that the project is worthwhile. CBE is a method of comparing the cost and effectiveness of two or more alternatives (van Kooten 1993). In our case, it is the choice between maintaining the food system in its current state and adopting more sustainable food policies. Such comparisons are useful as they allow the decision maker to consider whether an intervention is better than the status quo, and they provide the data to determine the costs of implementing these alternatives. While indirect and direct costs can be observed, the benefit expressed in monetary value should be comprehensible. However, a major limitation of the CBA model is that not all benefits can be given a monetary value.

In order to relate this directly to our scenario, we need to conduct a cost and benefit analysis of the entire food system to provide the variables necessary to determine an

approximation of a product's full costs. By assessing the costs, we are able to determine the future economic goals of the UBC Food System. There are four interconnected levels within the food system consisting of production, processing, transportation and consumption. If one level is affected, the other levels of the chain are equally affected. The costs and benefits can be assessed by looking at the economic, environmental and social aspects of each of these components.

From an economic perspective, the benefits associated with the production stage may include the generation of income and employment. For example, UBC purchases a certain percentage of food from external sources, thereby supporting the employment opportunities in various industries globally. By continuing to support external economic activities, the growth of the local economy is largely inhibited. Environmental degradation is another cost associated with food production. Soil degradation, air and water pollution all negatively impact the environment (van Kooten, 1993). All of these environmental changes have impacted bio-diversity, and even causing extinction of some species. The health of the workers may also be compromised due to exposure to pesticides and chemicals.

Processing has become a major industry in many countries, increasing as production levels increase. Although processing benefits consumers by increasing the availability of a variety of different food products in the market place, landfill waste, along with water and energy usage, increases proportionally. Transportation is the next step to get food to market. However, the impacts on the environment caused by emissions from high fossil fuel use can contribute to global climate changes by degrading the ozone layer of the earth (van Kooten, 1993). In addition, with the long distances food travels, there is an increase in food spoilage and nutrient loss, and thus the amount of food wasted.

After the production, processing and transport of food, the final product reaches the consumer. Since there are many different cultural backgrounds within developed countries, the variety of foods available due to importation is important for cultural identity. It may even be cheaper to buy imported foods due to different production methods, but the ecological impacts due to the globalization of the food supply are not reflected in that low price. Therefore, we can deduce that the environmental costs clearly outweigh the economic benefits when dealing with food transported worldwide. From this overview of our global food system, we can define the economic aims essential to reduce economic, environmental and social costs. These aims are to:

- Secure value for money
- Reduce waste
- Reduce energy use
- Encourage new markets for sustainable foods by producing on a local level
- Contribute to healthy local economies

Food must be valued for its influence on health and sustainable food system development, beyond its meager economic costs. It is inevitable to measure monetary cost in economic analysis because it is ultimately the determining factor when deciding whether to pay higher prices for food that meets greater environmental, nutritional or sustainability standards.

# Methods

To determine customer perceptions of food prices at UBC, we propose the use of web-based questionnaires. The benefits of applying this approach include that they are easily administered, cheap and efficient. An effective questionnaire is one that is short, simple and consists of questions that accurately elicit the information from the respondents that is desired

(Creative Research Systems, 2004). We have designed two questionnaires that attempt to embody these characteristics. The first is a survey which is designed to measure price perceptions among a random sample of UBC students, faculty, staff and residents. Additionally, we feel that an instrument to measure the consumer "willingness to pay" for a sustainable food system is necessary, and thus we have employed the technique of a contingent valuation design in our second questionnaire. The purpose of this instrument is to assess the economic valuation of environmental issues, specifically in our case with respect to the UBC Food System.

In consideration of all stakeholders involved and to provide a balanced view of the issue of food prices on campus, we propose that the comments and concerns of the UBC and AMS Food Services be obtained. In order to accomplish this we have developed a guide for interviewing the appropriate individuals within the UBC and AMS Food Services.

*Price Perception Questionnaire*

This research tool (Appendix 1) consists of twenty questions that address respondent demographics, current purchasing behaviours and generalized perceptions of current food prices. In addition, questions regarding food pricing with respect to specific sustainability indicators such as affordability as an economic indicator, food quality and variety as social indicators, and the support for local food products as an ecological indicator are included. This questionnaire is designed for use with a statistically randomized sample of the entire UBC community. Given that the perceptions of all UBC customers are desired, it is important to ensure that all sectors within the community are represented in the sample.

Surveying will allow future AGSC 450 classes access to subjective, tangible data that can be interpreted and analysed in order to move towards more sustainable food purchasing practices. However, before these can be adopted, it is important to take into consideration the

subjective views of all the stakeholders of UBC as they will greatly influence which sustainable practices will be implemented. We have provided the templates for the surveys that are to be administered to the UBC community, however future AGSC 450 classes should adapt the given surveys as required.

*Contingent Valuation*

In addition to a price perception survey, our group has decided to incorporate a contingent valuation survey (Appendix 2) as part of our methodology to determine customer willingness to pay for environmental benefits. This type of survey will allow us to hypothetically determine how much the UBC community is willing to pay in order for the adoption of more sustainable food purchasing policies. This type of information is very valuable to the food producers at UBC, as it will provide them with information regarding actual numbers and percentages that their customers would be willing to pay for locally and ecologically produced foods. Having access to this data would help the AMS and UBC Food Services in developing strategies to economically adopt more of these policies. If customers are willing to pay more for locally produced foods, the UBC food producers could begin incorporating these types of items into their menus and stores knowing there is a demand. A contingent valuation survey is an important tool that will help UBC move towards developing a more sustainable food system. Although a contingent valuation survey only provides hypothetical values, it does provide a range of numbers that food providers and policy makers can utilize once they begin considering adopting more sustainable food practices.

*UBC & AMS Food Services Interview Guide*

As an adjunct to the data collection methods previously described, we propose the use of our Interview Guide (Appendix 3) to conduct in-person interviews with key informants of the

UBC and AMS Food Services. This research instrument consists of eleven questions that are designed to elucidate profit generating products, current purchasing policies, and level of support for local food products. It is hoped that the outcome of the interview guide will help to align the goals of the food providers with the desires of their customers. It is important to understand the views, constraints and values of the UBC food producers before more sustainable practices can be adopted. The perceptions of the food providers must be considered before the food system can be expected to successfully move towards becoming more sustainable.

## Time Line

The UBC Food System Study can be thought of as a five-year journey and we presently find ourselves in the third year of this endeavour. This year, we have built on the foundation laid down by our colleagues in previous years by employing a model designed to assess sustainability in the development of our research proposal. For our peers who will continue on with our work, we propose the following timeline.

In the fall of 2004, Agricultural Science students should administer the Price Perception survey and the Contingent Valuation survey to a randomized sample of the UBC community. Researchers should strive to ensure an equal response rate for the questionnaire and the contingent valuation survey.

In the spring of 2005, Agricultural Sciences students should compile the results obtained from the questionnaires and surveys. In addition, interviews should be conducted with UBC and AMS Food Services personnel. It is recommended that the results from this phase of the study be carefully analysed and specific recommendations for UBC and AMS Food Services be formulated. Directions for future research should also be identified.

In the last year of the study (2005 - 2006), it is anticipated that some of the recommendations made in the previous year will be introduced. Agricultural Sciences students should continue to monitor the effectiveness and the feasibility of these recommendations.

## Conclusion

Determining price perception and willingness to pay for sustainable food products is a necessary step in moving the UBC food system towards sustainability. Our proposed research plan incorporates ecological, economic and social aspects of sustainability by measuring current and potential support for adopting more sustainable purchasing policies amongst UBC food providers and their customers through questionnaires and interviews. Our group feels that these are the most appropriate methods of determining customer perception of prices at UBC. Once the perceptions of the stakeholders have been evaluated, more sustainable practices can be adopted according to the demand for them. Without compliance and support of its consumers the UBC food system cannot be expected to successfully move towards becoming more sustainable. Sustainability involves all members of the UBC community and requires co-operation between the food providers and their customers for it to be achieved. Although perceptions are not directly indicative of the entire UBC food system sustainability, they provide insights into the potential successes involved with making the changes.

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## APPENDIX 1

Hello, we are students in the Faculty of Agricultural Sciences, conducting research on the UBC Food System. The purpose of this questionnaire is to collect information regarding your thoughts about food at UBC. If you are interested in participating, please complete each question outlined below.

For each question, please select ONE answer that best describes your current situation.

1. Do you currently live…
   - $ On campus
   - $ Off campus

2. Which describes you best…
   - ☐ Student
   - ☐ Faculty
   - ☐ Staff Member
   - ☐ Resident
   - ☐ UBC Visitor (if selected, please go to question 4)

3. Do you attend UBC…
   - ☐ Full time
   - ☐ Part time
   - ☐ Sessional

4. How often do you eat on campus per week on average?
   - ☐ Never
   - ☐ Once
   - ☐ Twice
   - ☐ Three times
   - ☐ Four times
   - ☐ Five times
   - ☐ Everyday

5. When you purchase food at UBC, how much do you spend at each meal (including the price of beverages)? *Please select the appropriate answer for each meal…*

| | Breakfast | Lunch | Dinner | Snack |
|---|---|---|---|---|
| <$2.50 | | | | |
| $2.50 to $5.00 | | | | |
| $5.00 to $7.50 | | | | |
| $7.50 to $10.00 | | | | |
| $10.00 to $15.00 | | | | |
| >$15 | | | | |
| Not Applicable | | | | |

6. What do you think about the prices of food at UBC?
   - ☐ The prices are too cheap, so that you would question the quality
   - ☐ The prices are cheap
   - ☐ The prices are average
   - ☐ The prices are expensive
   - ☐ The prices are too expensive, so that you would not consider buying

7. How would you compare the food prices on campus at UBC to the food prices off campus?
   - ☐ The prices are much cheaper on campus, so that you would question the quality of food on campus
   - ☐ The prices are cheaper on campus
   - ☐ The prices are the same on and off campus
   - ☐ The prices are more expensive on campus
   - ☐ The prices are much more expensive on campus, so that you would not consider buying on campus

8. Overall, how would you rate the availability of specific foods, including ethnic, vegetarian, or special diets (gluten or lactose intolerance, kosher) at UBC?
   - ☐ The variety of food is high
   - ☐ The variety of food is above average
   - ☐ The variety of food is average
   - ☐ The variety of food is below average
   - ☐ The variety of food is low
   - ☐ Do not know

9. Would you be willing to pay for a greater variety of foods available at UBC?
   - ☐ Yes, regardless of the price increase
   - ☐ Yes, if the price increase is marginal
   - ☐ Depends on amount of price increase
   - ☐ No, prices are already too high
   - ☐ No, variety is not important
   - ☐ Do not know

10. Overall, how would you rate the availability of what you deem are nutritious foods on campus (i.e. fruits and vegetables, whole grains, low fat, or low sugar items)?
   - ☐ Nutritious foods are always available
   - ☐ Nutritious foods are frequently available
   - ☐ Nutritious foods are seldom available
   - ☐ Nutritious foods are never available
   - ☐ Do not know

11. Would you be willing to pay more for a greater availability of nutritious foods at UBC?
    - ☐ Yes, regardless of the price increase
    - ☐ Yes, if the price increase is marginal
    - ☐ Depends on amount of price increase
    - ☐ No, prices are already too high
    - ☐ No, quality is not important
    - ☐ Do not know

12. Overall, how would you rate the quality of food at UBC?
    - ☐ The quality of food is high
    - ☐ The quality of food is above average
    - ☐ The quality of food is average
    - ☐ The quality of food is below average
    - ☐ The quality of food is low

13. Would you be willing to pay for locally produced food if its overall quality is superior to what is currently available at UBC?
    - ☐ Yes, regardless of the price increase
    - ☐ Yes, if the price increase is marginal
    - ☐ Depends on amount of price increase
    - ☐ No, prices are already too high
    - ☐ No, quality is not important
    - ☐ Do not know

14. Would you consider "locally produced" food to be…?
    - ☐ Produced 25 miles or less from point of purchase
    - ☐ Produced 100 miles or less from point of purchase
    - ☐ Produced in the Lower Mainland
    - ☐ Produced in B.C.
    - ☐ Other_____

15. What would motivate you to buy locally produced foods…Please indicate your **top 3 choices** from the list provided below:
    - ___price
    - ___quality
    - ___supports local farms
    - ___environmental concerns
    - ___food security
    - ___healthier food
    - ___freshness
    - ___helps local economy
    - ___other: _____

16. How much of a higher price would you be willing to pay for locally grown foods?
- ☐ 0%
- ☐ 1-5%
- ☐ 6-10%
- ☐ 11-15%
- ☐ >15%
- ☐ Price does not matter
- ☐ Other: _____

17. How much of a higher price would you be willing to pay for food that has been produced using environmentally friendly methods?
- ☐ 0%
- ☐ 1-5%
- ☐ 6-10%
- ☐ 11-15%
- ☐ >15%
- ☐ Price does not matter
- ☐ Other: _____

18. What would be the most important factor regarding the production of a food that would affect your purchasing decisions, given that it has comparable price and appearance?
- ☐ Grown locally by farms in the Lower Mainland & Fraser Valley
- ☐ Organic - unknown origin
- ☐ Organic - imported
- ☐ Organic - grown locally in the Lower Mainland & Fraser Valley
- ☐ Organic - grown in B.C.

19. How much do you know about sustainability and how it relates to the food system?
- ☐ A lot
- ☐ Average
- ☐ Some information
- ☐ Never heard of it
- ☐ Do not care

20. How important is a sustainable food system at UBC to you?
- ☐ Very important
- ☐ Important
- ☐ Slightly important
- ☐ Not important

## APPENDIX 2

We are faced with sustainability crisis here at UBC, which can neither be solved easily or inexpensively. Some of the current problems are named below, and for each please indicate whether you think we should spend more, the same, or less money than we are spending now.

| | Great Deal More | Somewhat More | Same Amount | Somewhat Less | Great Deal Less | Not Sure |
|---|---|---|---|---|---|---|
| Food Safety | 1 | 2 | 3 | 4 | 5 | 6 |
| Availability Of Nutritious Foods | 1 | 2 | 3 | 4 | 5 | 6 |
| Recycling | 1 | 2 | 3 | 4 | 5 | 6 |
| Composting | 1 | 2 | 3 | 4 | 5 | 6 |
| Availability of Ethnic Foods | 1 | 2 | 3 | 4 | 5 | 6 |
| Availability of Local Produce | 1 | 2 | 3 | 4 | 5 | 6 |
| Utilization of Local Produce in Food Prepared at UBC | 1 | 2 | 3 | 4 | 5 | 6 |

It is estimated that food travels an average of 1300 miles (~2100 kilometers) from its point of production to point of consumption (Kloppenberg, Hendrickson & Stevenson, 1996). Increased food miles are associated with environmental damage, declining food quality, and lower nutritional value of food. In order for UBC to move towards a more sustainable food system, several measures must be implemented. This would include purchasing a greater amount of local food products, and making UBC a more self-sufficient food system through increased composting and recycling on campus.

1. At present, it is estimated that in order to increase the availability of local food products at UBC, it would cost you approximately ___% per item purchased. Would you be willing to pay ___% per item purchased?

2. What if the percentage was ___% per item? Would you be willing to support UBC's move towards a more sustainable food purchasing policy?

3. What is it about UBC's move towards a more sustainable food purchasing policy that would make you willing to pay for it?

4. Before the survey, did you think that the food system unsustainability crisis at UBC as described to you was more serious, less serious, or about the same?

## APPENDIX 3

UBC & AMS Food Services Interview Guide

1) Currently what food products generate the most profit?

2) What are the least profit generating products that you carry?

3) Do you use a food distributor when ordering food products or do you order straight from the suppliers?

4) If you use a food distributor, what is the name of the distributor you use?

5) What percentage of your food is produced in the lower mainland?

6) What percentage of your food is imported from outside the lower mainland?

7) Do you know where the majority of your food products come from?

8) Is it more cost effective to buy food locally or outside the lower mainland?

9) Would you sell locally grown food? Yes__ No__ If no, please explain why not.

10) What is your definition of sustainability?

11) If the benefits of locally grown food products outweighed the costs, would this change your perception of selling more locally, sustainable products?