

The University of British Columbia Food System Project (UBCFSP)

Scenario 8: Investigating the Desirability and Feasibility of Incorporating more Local, Seasonal and Sustainably Produced Food Products into the Agricultural Students' Undergraduate Society (AgUS) Weekly BBQ Menus

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April 2008

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ABSTRACT

As a part of the University of British Columbia Food System Project (UBCFSP), our group looked at incorporating local and seasonal produce in the Agricultural Sciences Undergraduate Society (AgUS)'s Wednesday Night Barbeques (WNBBQ), particularly establishing a working relationship between the AgUS and local farms, especially UBC Farm. Menu development and modification to incorporate UBC farm items was the focus of this project as a means of reducing food miles, supporting the local economy, and realigning AgUS practices with faculty ideals.

Through first-hand observation, the development of sustainability indicators, interviews with AgUS executive members and food miles analysis, we evaluated the current sustainability of the WNBBQ. By conducting an online survey, and through working Fraser Valley and UBC farms, we were able to establish current market demands. A specific list of recommendations for evident and future stakeholders, as well as a resource package (including a cookbook a local farm guide and one years' shopping list, dividing monthly) were developed as a result of this project.

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INTRODUCTION

The UBCFSP is a collaborative, community based action research (CBAR) project on food system sustainability and food security, initiated jointly between the Faculty of Land and Food Systems and UBC's Sustainability Office's Social, Ecological, Economic and Development Studies (SEEDS) program (University of British Columbia, 2007). This project's focus is on incorporating local and seasonal food into the WNBBQ.

The WNBBQ started as a social event by the Agriculture Sciences Undergraduate Society (AgUS). The WNBBQ's main goals are: to provide healthy meals, to promote the awareness of food security and sustainability, and to create a sense of community. Our project goal is to incorporate local farms, especially UBC farm, as a main supplier of fruits and vegetables to the WNBBQ, in an effort to realign WNBBQ practices with perceived values of LFS students, faculty, and staff. Since the WNBBQ has already accomplished their goal of creating links between students and faculty members through the BBQ, we are now working towards providing local, seasonal, and fresh produce, working to reduce their dependence on large chain supermarkets.

This report begins by identifying the importance of our research. Following this is our justifications on how our scenario relates to the UBCFSP Vision Statement, and a description of how this group's value assumptions have influenced our perceptions of the scenario. We then talk about our methodology, followed by a discussion of our findings. Lastly, along with our conclusion, we provide recommendations to key stakeholders, focusing on future students who wish to continue with this project.

PROBLEM STATEMENT

AgUS is a student run undergraduate governance organization that runs out of the MacMillan Building basement on UBC campus. The society organizes many Faculty of Land and Food System

(LFS) events. One important role of the AgUS is in developing and preparing a weekly barbeque for LFS students and faculty members. Over the past few years, the AgUS has been concerned with building a stronger connection with the UBC Farm, as well as other local farms, in order to prepare more seasonal meals from locally purchased foods.

By increasing the availability of local foods to the AgUS, we can reduce greenhouse gas (GHG) emissions by decreasing the distance traveled by the food (Abi-Jaoude, Kiani, McKay, Paxton & Tomkinson, 2007). As well, recent events of food poisoning have raised consumer concern regarding the safety and quality of their foods (Mark & Moreland, 2007). Hence, by eating local foods, consumers will gain confidence about the safety of their food and more direct knowledge of their food's origin. Activities associated with obtaining local foods, such as talking with farmers at farmers' markets or helping out on farms, lead to improved knowledge of food production and increased respect for the food (Sage, 2003). Furthermore, local food production and consumption reduces food miles, increases food security, by bringing consumers and producers together (Mark & Moreland, 2007). This fosters increased awareness among customers regarding the origins of their food and production practices (Mark & Moreland, 2007).

'Food Miles' is an important concept used to assess broad issues of sustainability. It is a method used to calculate the environmental impact caused by food traveling from the farm to the consumer (British Broadcasting Corporation, 2008). The average ingredient in a North American meal travels 2,000 km from the farm to the plate (Southeast False Creek Urban Agriculture Strategy, 2002). By purchasing local produce, total food miles will decrease, the food will be fresher and of higher quality as it is fresher, and the local economy will be supported (BC FarmFresh, 2008). In addition, with increased pressure from oil price hikes, input-intensive, high mileage, produce will no longer be economically sustainable. This shift has pushed industries, developers and communities alike, to look for new ways to adapt to an increasingly uncertain environment. Naturally, food production has become the forefront of most adaptation strategies, and a more

localized food production model is currently being accepted as one of the most effective means of adaptation (SEFC, 2002)

The distribution of food from producers to suppliers has significant impacts on the environment (Lea, 2005, p.22). To transport food, vast amounts of energy are used and large amounts of CO₂ are emitted into the environment. For example, a London study found that purchasing imported apples from a supermarket resulted in carbon dioxide emissions over seven times higher than purchasing locally grown apples (Jones, 2002). By purchasing seasonally fresh produce from local British Columbia farms, we aim to reduce CO₂ emissions by decreasing fossil fuel consumption, reduce packaging thereby minimizing waste production, and enhance the quality of food. Consequently, we are addressing major issues that have an impact on a global scale. As a result, by achieving food security within our community, we can initiate changes in the world's food system.

IDENTIFICATION OF VALUE ASSUMPTION

& UBCFSP VISION STATEMENT

Being students in the Faculty of LFS has undoubtedly helped shape our value assumptions. Year after year, the concepts of sustainability and its economic, ecological and social components have been ingrained in all of us through our academic coursework. We understand that along with the Western philosophical view and values of this faculty, the positivist paradigm is shared where the “truth is out there... [and that] facts exist independently of any theories or human observation” (Rojas, 2008). While we acknowledge this as fact, it is hard for students to not view the scientific paradigm from a Constructivist epistemology, where the “truth is socially constructed...and ‘facts’ are a construct of theories and points of view” (Rojas, 2008). Especially as undergraduate students, we have limited control over what we are taught and our assigned research topics. For example, at the start of this project, we had assumptions based on theories and accumulated knowledge over the

years, that most, if not all, individuals would prefer to have local and seasonal foods served at the BBQ.

Consequently, even with our different cultural backgrounds and past experiences, we have a general consensus regarding the UBCFSP Vision Statement and its seven guiding principles. As a group, we agreed with the vision statement and the definition of a sustainable food system. However, we felt the wording of the initial sentence in the statement was lacking in scope. It implies a linear relationship between a sustainable food system, ecosystem and social equity, whereby one guarantees the other. The main challenge with describing a sustainable system, is that it does not flow in a linear manner (Pollan, 2006). We felt it would be more inclusive if it were addressed that, through striving for social equity and ecosystem diversity, in a conscientious manner, the system will move towards sustainability. Moreover, our group felt that the term sustainability is on a gradient, rather than being an absolute. And, although the categorical approach of defining sustainability is more easily accessible, it oversimplifies the issue. We acknowledged that this is a “plain language” Vision Statement, and is meant to be accessible to everyone, and furthermore, we value the importance of this accessibility. However, vocabulary should be developed to better describe sustainability within our food system, and that should be addressed in the vision statement.

The first of the seven points was discussed among our group. We felt that local food production (the first principle) addressed issues of economic, and when combined with the sixth principle, ecological sustainability. However, it took a one sided approach to social equity. On a local scale this would likely improve social equity; however, when looked at on a global scale it may decrease social equity in countries that rely on exports for economic stability. In addition, we felt that the sixth principle could be expanded to include suppliers. Even if producers are using ecologically sustainable farming techniques and supporting their community, that wouldn't matter much if their food is still being purchased and sold by large chain supermarkets as they may not be

as socially and ecologically conscious. Such huge corporations could easily undo the benefit of socially and ecologically conscious producers.

Our task of creating a sustainable food system is congruent with the UBCFSP Vision Statement. While we agree with all the principles in the UBCFSP, we have prioritized these principles. Within the scope of this project we are not as concerned with providing ethnically diverse foods, while seasonal and local foods are our main focus. Currently, we are not in a position where we can be certain that our producers are socially and ecologically conscious as it is much beyond our control.

METHODOLOGY

A substantial and sustainable change in any existing system takes time and the efforts of many stakeholders. Through analysis of the problem statement, we identified two ways to approach the problem:

- 1) A specific change can be pinpointed, and efforts concentrated on improving that single component. For example, one meal item could have been the focus, and efforts made to establish to provide produce necessary menu items. Years of accumulated small changes, such as this, lead to a significant change in the entire system.
- 2) The whole system can be critically analyzed, a target project can be selected which is stipulated to evoke change within the entire system, and efforts of collaborators and stakeholders can be spread across many years to incorporate this change.

We chose to use the second approach, stipulating that if a proper baseline analysis of the WNBBQ was conducted, and resources gathered during this project were developed into a comprehensive resource package, next year's AGSC 450 students, working on scenario 8, could start exactly where this year's group ended and build meaningfully on the efforts of this year's students. This paper will outline the methods, findings, discussions, and recommendations as developed by this group.

Our research is based on the principles of CBAR in which this method addresses specific issues in a community. It is essential for all the stakeholders involved to work together to define the problem, formulate and implement a solution in order to improve the situation (Rojas, 2008). In other words, the CBAR entails a process of “look, act, think” (Rojas, 2008). Key stakeholders we have identified and collaborated with throughout this project include executive members of the AgUS, attendees of the WNBBQ, and the Faculty of LFS community. Together, we were able to evaluate current sustainability issues of the WNBBQ, begin acting upon solving these issues, and forming solutions and recommendations. Listed below is a detailed summary of each method used.

Primary Observation

In order to get a better understanding of how the event was run and who came for the meal, our group attended the WNBBQ on January 30th, 2008. It was important for our group to clearly understand the barbeque so that we would be able to focus our attention on the relevant issues and eventually come up with recommendations that were appropriate and took into consideration the needs of the community. While at the barbeque, we observed the food service methods, evaluated the meal being served, and examined the people in attendance in order to get a rough idea of how many people showed up for the meal as well as their degree programs.

Sustainability Indicators

Sustainability indicators can be defined as “ways to measure how well a community is meeting the needs and expectations of its present and future members” (Hart, 2006). It is a tool used to assess and identify areas that need improvements in the WNBBQ. In addition, it reflects and demonstrates the strength of the bond connecting the economical, social and ecological aspects of this food system (Hart, 2006). These indicators are useful in monitoring and encouraging the promotion of economical, social and ecological sustainability in the WNBBQ.

Indicators used in this scenario were derived from Case One in AGRO 360. Starting in 2004, AGRO 360 students began generating indicators for assessing cattle ranches in BC through

brainstorming and collaborating their ideas of a sustainable community. A shared vision of a sustainable WNBBQ was created from our group discussions. Keeping the seven Guiding Principles in mind, our group was able to modify the indicators to suit our scenario (see Appendix 1). These indicators were developed into questions used in the interview with the AgUS executive members.

Agricultural Undergraduate Society Executive Members Interview

In order to assign appropriate indicator ratings, we interviewed the AgUS President (Pearl Yip), Vice President (Sarah Makepeace), and Treasurer (Kirsten Flood). The questions developed by our group members were used in order to best obtain information regarding the social, ecological, and economic sustainability of the WNBBQs. These questions were formed into a questionnaire divided into three main categories as follows:

Economic Indicators focused on details, annual BBQ profit or deficit, as well as land-use and the possibility of expansion. Moreover, evaluation was done on market flexibility, supply and demand considerations, and current factors influencing selection of the retailer. .

A section

Social Indicators A section targeted at identifying the history of the WNBBQ and the clientele of the BBQ (quantity and characteristics), evaluating customer turnover and loyalty, and community building effectiveness of the BBQ.

Ecological Indicators A section focused on quantifying waste produced during food production and collecting information on waste management practices: means of recycling food waste and packaging.

In total, two sets of data were collected during the sustainability assessment of this food system: observations noted on January 30th and the responses from the interview with the AgUS

members. For all the questions, including the responses from the AgUS executive members, refer to Appendix 2.

Online Survey

In collaboration with Group 26, we created a survey which consisted of 18 questions (refer to Appendix 3). In order to receive a significant amount of input from the community, we transferred our questions into an online survey program, “Survey Monkey” (Surveymonkey.com, 2007) and emailed the survey to Cathleen Nichols, the Community Partnership Coordinator, who passed the survey on to members in the Faculty of LFS on her mailing list. The survey was launched on March 7th and closed on March 26th. We sent it out twice, a couple of weeks apart, in order to get more respondent participation, as it is crucial in the CBAR approach to have input from community members.

Evaluation of BC Farms

To determine if any farms would be able to supply the WNBBQ with the amounts and types of vegetables that they would need throughout the year, our group examined several farms in the Fraser Valley region. We started with the list of 20 farms on the BC Farm Fresh website that were categorized as providing a "full variety of fruits/vegetables" (Farm Fresh, 2008). We contacted each farm in order to find out what they could provide, when they were open, what their prices and growing practices were, how far they were from UBC and how the volunteer members would be able to access the produce (i.e. transportation, delivery, etc.). We first looked at the farms' websites, then emailed or phoned them if necessary to find out more information. After the preliminary assessment of the 20 farms, it was clear that alternative farms not listed under the BC Farm Fresh Variety Category needed to be contacted, such as the UBC Farm along with 4 more local farms and three wholesalers (Appendix 6)

Food Miles and Purchasing Template

In order to collect more quantitative data for baseline sustainability measurements of food purchased for the WNBBQ, we designed an evaluation template for tracking food origins. We then extrapolated data to develop an estimate of food miles covered, and carbon emissions produced, at the Mar 12th and Mar 19th BBQs. These data were averaged and used as a baseline indicator of carbon emissions produced through current WNBBQ food purchasing practices. The parameters covered in the template included: *Retailer, Item, Quantity, Weight, Origin, Processing information and Price* (see Appendix 4).

Group members volunteered with AgUS members to shop and gather information, in order to complete the template. Upon completion of the template, the Fallsbrook Centre food mile calculator was used to quantify carbon emissions (Fallsbrook, 2006). Parameters entered into the calculator included food miles, food weight, and mode of transportation (truck, plane, or train). Assumptions were made that all food from North America and Mexico were shipped by truck, while items from other origins traveled by plane.

Menu Guide (or cookbook)

We compiled a guide that provides the AgUS with potential seasonal recipes for the coming school year's WNBBQs. Several steps were needed to finalize the menus. We researched what food products were seasonally grown in BC and designed the menus according to these products. Next, we increased the serving size to 100 to accommodate the WNBBQ participants. Finally, we calculated the quantities of produce needed in each menu and created shopping lists. This cookbook is not only a guide for modifying the current BBQ menus, but also a reference to look to for potential regular fresh vegetable suppliers. We developed the menu using seasonal fruits and vegetables with primary consideration to what can be grown on the UBC farm (for a complete list refer to appendix 6). To overcome some of the limited variety at UBC farm, we consulted seasonal produce tables for BC (refer to appendix 7).

FINDINGS/RESULTS

Primary Observation

Findings here were used to measure and assess the sustainability of this food system, especially the social aspect. Our group noticed that the majority of the participants at the BBQ were students from the Global Resource System (GRS) program, with very few from the Agroecology and Food, Nutrition and Health (FNH) programs. In addition, only two faculty members were sighted. It was estimated that there were around 70 people with most of them sitting with their friends or associates. The food, which had a Mexican theme, was served in a similar way to a cafeteria. Individuals were responsible for cleaning their own dishes and utensils. There were approximately seven people preparing the meal and five people serving the food. Rainy weather restricted the opportunity of having an outdoor BBQ; therefore, the event was hosted in AGORA (the MacMillan Building basement).

Sustainability Indicator Questionnaire with AgUS members

An interview with AgUS members allowed our group to ask and address some of the issues faced by those managing the WNBBQ. The responses provided by them are reliable and valid as they are the ones involved in running the WNBBQ, from purchasing the ingredients, to preparing, cooking and serving the food. Clearly, the economical, social and environmental components are all interconnected in this community. However, it was decided that each area would be analyzed separately in order to achieve a detailed and thorough sustainability assessment of this food system.

Economic Indicators

In terms of economical sustainability, the WNBBQ is not self-sufficient because break-even profits are obtained in some weeks with negative returns in others. The Alma Mater Society provides funding for the BBQ, with approximately \$30 per student in the Faculty of LFS. The

operation costs of the BBQ, such as utensils, dishes and propane for the grill, are considered as fixed costs and the weekly food purchases are considered as the variable costs. However, maintenance costs, such as lighting, heating, and plumbing are difficult to calculate and measure in this scenario.

The AgUS members currently purchase vegetables for the BBQ from New Hill Market and meats from Jackson Meats Store. Other condiments and bulk items are bought from Costco and other chained supermarkets. Both food stores are set in convenient locations near the UBC campus. In addition, Apple Hill Market supplies seasonal and local produce. Zero food is purchased from the UBC Farm, mainly due to the lack of variety and small quantities offered by the farm.

The theme of the WNBBQ is decided during the weekly AgUS meetings. Considerations when determining the weekly theme include: the number of volunteers, meal diversity (How long has it been since they prepared a similar meal?), choice availability (Is there a vegan, a vegetarian and a meat version of the meal?), and the cost of food.

Mexican and pirogues are the two most popular themes. As for the location of the BBQ, it is mainly held at AGORA. This venue can support up to two hundred people and in general there are around 80 to 110 people attending the BBQ each week. The location of the event appears to meet the demands of those involved, showing there is no change needed. If there is ever a need to have a larger venue due to an increased number of participants from other faculties, a suggestion was made to encourage them to host their own BBQ night. The current mission statement of the BBQ is to provide an area for facilitating communication between faculty members and students, and while the concept of sustainability is not part of the statement, it is mutually understood by those involved. The result of the economic indicators showed that the economic viability is not seen as a priority; rather the WNBBQ is perceived as a social event and not a business.

Social Indicators

Most BBQ regulars are part of the Faculty of LFS. Many of them are GRS students, graduate students and professors. Occasionally, there are students from the Faculty of Forestry and Engineering attending the BBQ. The event is run by 10-15 volunteers that consist of AgUS committee members and students of AGSC 100 working towards completing their mandatory volunteer credits. Part of the social indicator results can also be found under the "Primary Observation". From the information gathered by these two methods, it is clear that the WNBBQ is an event created to establish a sense of community and belonging for newcomers and those involved.

Ecological Indicators

The assessment of the ecological sustainability was focused on waste management. The WNBBQ produces approximately one half to one full bag of garbage per BBQ. Reusable dishes and utensils, such as glass plates and metal forks, are used to cut down waste production. Minimizing the purchase of packaged foods can further reduce the quantity of waste. The majority of the waste is placed into recycling and composting bins. The UBC Plant Operations are responsible for picking up this compost and delivering it to the UBC Farm. The leftover food from the BBQ is given to those who want second servings, and the remaining is placed into plastic containers for the volunteers and staff members to take home. Overall, the waste management of the BBQ is well developed.

Online Survey

The survey was a way for us to find out what other people in the faculty thought about the WNBBQ and what changes they thought AgUS should make. We were interested in the sustainability status of the barbeque, the background of the respondents questioned, and their perceptions of local food, organic food, and food security. As well, we used the survey to determine whether our project goals were validated by the LFS community. In total, we received

116 respondents. We divided the responses into quantitative and qualitative feedback. The survey results are formed into statistic diagrams shown in Appendix 5.

Quantitative Responses

General information and attendance

Most respondents, 64%, were from the FNH program; 13% were from the Agroecology program and 12% were from GRS. More than half the respondents had attended the WNBBQ (57%). For those who had never been to the WNBBQ (43%), their main reason was the WNBBQ time (set at 5pm) conflicts with their school schedules. Out of those who had never been to the WNBBQ, 33% provided the above as their reasons and 25% said they were busy. For the respondents that replied "Yes" to attending the WNBBQ, only 12% of them claimed that they went to the BBQ every time, and 48% of them said they would go occasionally.

We asked the respondents how they know about the WNBBQ. Almost half of them stated that they first heard about this event from AgUS representatives (43%). In addition, 32% of them knew about the BBQ from friends and 13% of them knew by emails sent from this faculty.

Inclination to participate

In order to obtain a better understanding on the demands of participants, we asked them whether they would be more inclined to come to the WNBBQ if the food available were “local”, “seasonal”, “organic”, or “vegan”. Seventy respondents replied that they would be more inclined to come to the BBQ if the menu provided “local, organic, and seasonal” choices. Only two replied “no.”

Quality and affordability of the food, and willingness to pay more

About three quarters (73%) agreed that the current dinner price (at \$5) was “affordable”. Approximately 3% of the participants thought that the quality of the food could be further improved. For instance, a few people suggested the BBQ should provide more organic and local food. When asked if respondents would be willing to pay more if the food were local and

seasonal, 70% of respondents answered “yes”, with 45% of them willing to pay \$6, 21% to pay \$7, 16% to pay \$5.50, and 12% to pay \$6.50.

Qualitative Responses

Unsustainable aspects of the WNBBQ

In the survey, we asked the respondents what aspects of the WNBBQ they felt are not sustainable. Many of their responses were similar and can be grouped into two points:

1) Current food purchases:

They believe that the foods offered at the BBQ are not economically and environmentally sustainable. Respondents are aware that current food produce and meat are not purchased locally, are not organic, nor in-season and, therefore, are not sustainable. They are also aware of the currently imported goods and packaged products and recommended those should be avoided.

2) Waste production and management:

Many respondents were uncertain how food wastes and leftovers are handled at the BBQ. The use of plastic cutlery and paper plates were noted by some and deemed not as environmental friendly. Others also pointed out that because products are purchased in stores, a lot of garbage is produced from packaging.

Suggested Improvements

While 11.5% of respondents reported that the WNBBQ does not need further improvements, 35.4% felt that it could be improved. Similar suggestions were made, such as the WNBBQ should focus more on purchasing local and organic food, providing a greater variety of foods and beverages, educating consumers about organic/local/seasonal food, creating more sustainable menu options, having a cleaner facility with more space, moving the venue closer to the Student Union Building, ensuring there is an option for people with food allergies, and reporting imported goods while highlighting local options at the BBQ. (See Appendix 5

Evaluation of BC Farms (refer to Appendix 6)

Through evaluation of BC local farms we created a farm table which included all relevant information we had gathered. From the 20 farms initially contacted, 11 answered. Six of these were open year round, while 14 were only open in the summer months. Of the 11 farms we spoke with, four were fruit orchards, five were vegetable farms and two had mixed produce. Twelve farms were found that had the variety we needed for the WNBBQ. Farms were excluded if they were not open year round, further than two hours away (and did not deliver), or did not have crop variety. The top five farms identified as being potential providers for the WNBBQ are: Ralph's Farm Market, Howard Wong, Yellow Barn country Produce, Forstbauer Natural Food Farm, and Ross Down Farm Market. A detailed summary of these farms is available in our farm table in Appendix 6.

Menu Guide (cookbook):

This cookbook contains 25 menus in total: 4 menus each month from September to March, and one menu for the single WNBBQ in December. Each menu consists of a salad, an entrée, and a dessert, using as much seasonal BC produce as possible. Included in each menu are cooking instructions and shopping lists for fresh produce required from a local farm.

Resource Package: Our overall result from this project was the development of a resource package for future LFS students and the AgUS. The resource package includes our menu guide (cookbook), shopping lists (organized monthly of all local and seasonal food needed for that months meals), and the farm table.

DISCUSSION

Primary Observation/Sustainability Indicators

Ratings were given for each indicator results on a scale of 0 – 3. Zero implies the food system is not sustainable and shows signs of degradation. A score of 1 means there is a low level of sustainability, which is likely to result in degradation over time if current management is not

properly modified. A value of 2 indicates a moderate level of sustainability with some notable areas for improvement while 3 indicates a high level of sustainability with signs of longevity and resource health (AGRO 360, 2007).

The economic sustainability of the WNBBQ was given a rating of 2.0, because this event is not viewed as a business but rather a social function working toward building a stronger bond between all stakeholders in the LFS community. Although the goal is not to make profits, maintaining break-even earnings would be more sustainable, thereby decreasing the dependence of the BBQ on the funding from the AMS.

The social sustainability of the BBQ received a rating of 2.25. More advertising and promoting is needed to attract more students to come to the BBQ, especially students from the FNH and AGRO programs. The concept of eating locally can be encouraged by providing information on the weekly menu regarding the origins of the food, bibliographies of the farmers involved, the farming practices and inputs used to grow the food. By expanding the number of participants, the number of volunteers can also be increased by making the volunteering at the BBQ mandatory for more AGSC courses.

The environmental sustainability of the BBQ received the highest rating out of the three sectors, with a rating of 2.5. Many ecological principles were already incorporated into the BBQ, such as the reduce-reuse-recycle concepts.

Reduce: half to a full bag of garbage produced each week.

Reuse: encourage people to bring and wash their own plates and utensils

Recycle: compost waste

Online Survey

The results of the survey helped in justifying our project. Our group had speculated that the Faculty of LFS's students and faculty members valued local food and would appreciate having local and seasonal meals served at the WNBBQ. The survey responses confirmed our

assumptions and helped us move forward with our project. In the future, AGSC 450 students will be able to approach farms with the confidence of knowing that the WNBBQ participants are willing to pay more for local and seasonally grown food, as well as organic food. By providing more financial flexibility, future students doing this scenario will have the room to negotiate with the farms in creating a relationship that is economically feasible for both parties.

Most of the respondents to the survey were students from the Faculty of LFS. This can explain why so many were interested in local food. The students from this faculty learn about food security, sustainability and local food in their AGSC courses. Therefore, they may have more of an interest in having local food at the BBQ than students from another faculty who are not exposed to the information presented in the land, food and community series. Although the goal of this project is to be a pilot project that could be emulated in other faculties, the applicability of this project to other situations may be limited due to the potential lack of interest for local/seasonal food in other faculties.

As well, there seems to have been some inconsistency between those people who replied to the survey and those who participated in our first-hand observation. Our group members, through their informal observations of the people in attendance at the BBQ, as well as through the information gained from interviews with the AgUS members, determined that it was mainly GRS students who attend the BBQ. However, the survey respondents were mainly FNH students. This may have an effect on our results because these people may have different viewpoints due to their different educational backgrounds.

BC Local Fresh Farms

Of the local farms we contacted, 5 were identified as having high potential, while 9 farms and 3 wholesalers were excluded. The criteria used to measure farm acceptability is described below:

Farms more than a two hour drive from UBC were excluded, unless, the particular farm regularly ships produce to the downtown Vancouver area. Although, supporting local agriculture is beneficial, as outlined in the Problem Definition, economies of scale must also be considered. In a given international shipment of produce, any one product will have burned a fraction of the overall trip fuel, and thus have a relatively small footprint (Dressel & Suzuki, 1999). This can be less carbon than when compared to the energy used to drive 300 km (150km in either direction) in the procurement of 50kg of produce. Therefore, closer farms were given top priority, with the cut-off at 1.5 hours driving time. Willingness of AgUS members to drive for 3 hours weekly for produce procurement is also an important issue for consideration; follow-up data from AGUS was not obtained.

Farms had to be small or medium in size, and offer a variety of produce. We excluded farms that did not have a polyculture system (based on crop variety), because through results from the online survey, it became evident that students cared both about seasonally local and organic produce. Organic industrial agriculture is comparable in its ecological impact to industrial agriculture (Pollan, 2006). Although industrial organic does not use pesticides, and instead uses organic fertilizers, it can still be energy intensive and cause soil depletion if crop rotations are not applied (Pollan, 2006). Since this energy is derived from fossil fuels, it is still a major polluter (Pollan, 2006). Furthermore, we wanted our selected farm to be in line with the UBCFSP Vision Statement. Therefore, our goal was to find a local, polycultured, and preferably, organic farm. We felt that if the farm practiced polyculture, even if it was not certified organic, it still encouraged biodiversity and likely practiced crop rotations, thus would be more congruent with UBCFSP vision statement than imported organic, or industrial organic agriculture is.

Farms were given priority over wholesalers or retailers. This addressed two important issues: directly supporting farmers and carbon footprint from food miles. We wanted the AgUS to build a relationship with a local farm directly, and support them financially, while the farm supported

the AgUS with produce, thus, creating a symbiotic relationship. This was our gold standard and project goal. We felt that without a systematic review of the business practices of the food retailer, with gas prices being lower than they should be, it is hard to predict whether the retailer or wholesaler will practice best business practices.

Wholesalers, or retailers, have to provide produce from local, small to medium scale farms.

This criterion was to ensure that food was not purchased from industrial organic farms, large-scale local monocultures, or imported organic products. Small Potatoes Urban Delivery (SPUD) products were considered, however, upon further inspection, we discovered that a great deal of organic produce from Small Potatoes Urban Delivery (SPUD) is actually imported from the United States, Mexico and other countries (SPUDS, 2007). Likewise, BC hothouse tomatoes, supplied by *Pacific Produce* (appendix 6) are industrially produced, therefore input intensive. Other issues related to greenhouse production were not addressed in this research paper.

In contacting farms, we also found an overall trend: some farms produced more staple products, but lacked in overall variety while others had a variety of produce which tended to be more specialty produce and lacked some staple foods for the WNBBQ such as apples, tomatoes, potatoes, onions, and legumes. Another observation was that although willingness to form a working relationship was evident with some farmers contacted, there was a degree of confusion and worry from the farmers that they could not support AgUS needs. This indicated that although there has been a local food production movement, within BC, it is not yet widespread among farmers in Vancouver. We see this as an opportunity for follow-up, and introduction of BC farmers to local retailers.

Food Miles and Purchasing Template

We identified a few areas of improvement with the current purchasing practices of the AgUS. For a complete account of purchases made on Wed Mar 12th and Wed Mar 19th, please refer to Appendix 4. Also, detailed recommendations are included in the following section.

The three pillars of LFS are Land, Food, and Community. Although the WNBBQ was successful in strengthening community, respect for land and the food system were not obvious by current WNBBQ shopping practices. By realigning the WNBBQ with the ideals and beliefs of current LFS students, thus shifting to locally and responsibly grown produce, the community pillar will likewise be strengthened. We noticed several value added items in the shopping list, such as frozen berries, tahini and pre-made curry powders. Although total exclusion of these products may not be realistic, value added products expend significantly more energy and water in their production, and therefore have a larger environmental impact. Also, value added products funnel more funds for food processors, but do not increase the farmer's income (Dressel & Suzuki, 1999)

The major underlying problem with value added food is the lack of transparency. The AgUS cannot track these items to their origin, nor can they assess the amount of funds allocated to farmers, processors, distributors or retailers; minor knowledge of the amount of subsidies, through ports and transportation, is known. Furthermore, farming practices and land degradation from growing these foods can be guessed, but not quantified. We identified this as a major problem, considering food security is a major learning objective in LFS, and the AgUS's role is to exemplify our faculty work and values.

RECOMMENDATIONS

For next year's class

- Work toward adding and polishing the menus from our cookbook
- Work toward building a stronger bond with the five potential farms we contacted, in hoping to increase reliance on the WNBBQ's purchases of imported and packaged goods.

- Develop a better understanding/communication between the AgUS and UBC Farm, in terms of negotiating/bargaining a better price for their produce. In return, the AgUS can subsidize the farm with the funding they receive from AMS and Faculty of LFS.
- Encourage UBC farm, and interested local farms, to produce more food
- Develop a comprehensive marketing plan, emphasizing local produce, in order to generate excitement around the WNBBQ.
- Work with UBC farm, encourage farm to produce more overall food. This can be done by researching precedents on intensive (such as biodynamic gardening in Santa Cruz University), assessing technological resources to extend the growing season (root cellars, and greenhouses), or focus on establishing a more robust, year round, volunteer base for planting, crop management, and harvesting.

For Next Year's Teaching Team:

- Provide next year's students with the resource package.
- Open the option for interested students to start on scenario 8 in September, to match up with BC's growing seasons.

For the AgUS Committee

- Incorporate seasonal menu guide into regular WNBBQ meal planning process
- Look into local food providers, including retailers, wholesalers and farms. Focus on purchasing produce from local sources
- Use resource package and work closely with UBC farm to identify the specific products they can provide to the WNBBQ.
- Invest more time in marketing, make in-class announcements whenever possible.
- Encourage wider participation, emphasize the origin of local ingredients within meals in the following year.
- Modify WNBBQ's mission statement to be more current and in line with faculty ideals

- Sell healthy beverages, or fruit smoothies, at a price comparable to AGORA menu items.
- Use WNBBQ as a medium to promote the concept of sustainability,
- Minimize purchasing of processed and packaged foods.

CONCLUSION

This is a pilot project with a goal to move the WNBBQ toward sustainability by incorporating local and seasonal food into the menus. Recommendations were given to next year's AGSC 450 class, AgUS members, and local farms to assist all stakeholders to build a common ground and form business and social partnerships. The findings from our research allowed our group to discuss and investigate issues such as food miles, the feasibility of buying local and seasonal food from farms in the Fraser Valley, and the concerns and values of those who are involved and those who are not involved with the WNBBQ. The online survey and sustainability assessment were methods derived from the CBAR principles, in which, by including and encouraging stakeholders to participate in the research process, creative and effective solutions are produced. Along with holding our group value assumptions in place and setting the UBCFSP Vision Statement as a guideline, the problem of not having local and seasonal food served at the WNBBQ was partially resolved with the guide/cookbook created by our group.

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APPENDICES

Appendix 1: Sustainability Indicators

1) Economic

- a) profit
- b) % reliance on purchased off-local inputs
- c) Market flexibility (supply and demand)
- d) Land use (ownership/lease, availability for expansion/land purchase)

Does land have value in its current use, or it is a possible parcel for division and urban or industrial development?

2) Social and Cultural

- a) Source of income
- b) Social networks (how many people go? Who are regular? Only go once of twice a week? Are they in LFS? Are they UBC student or faculty member? Why are they here?)
- c) Any conflicts of interest with social groups (competitors, suppliers, UBC farm, others outside of LFS)
- d) Employment: volunteer basis (how many do you need? Do you have enough participants?)
- e) Are they supporting the local food system?
- f) Land ownership (degree of connection and understanding of land use patterns and relationships)
- g) History (How did the BBQ got started? How many years?)

3) Ecological

- a) Waste Management
- b) Food resources
- c) Compost/recycling

Appendix 2: Sustainability Indicator Questionnaire

ECONOMIC INDICATORS

1) What is your weekly profit? Is it consistent?

A: Some weeks we are under by as much as 200\$ and some weeks we are over by as much as 200\$. We spend between 260 up to 600\$ per meal, and earn from 290 to 550\$ per meal. Some weeks we break even.

2) If there is a deficit, where does the extra money come from?

A: The extra money comes from student fees which all LFS students pay through their course feeds to the AMS. The AMS then allocates that money to the AGUS. The fees are approximately 30\$ per student.

3) What are your fixed costs? Variable costs?

A: This isn't actually a business, and so isn't run like one. We don't pay for staff, lighting, equipment, or plumbing so there aren't really any fixed costs. The cost of purchasing utensils and propane could possibly be fixed costs. Our variable costs are the food we buy each week.

4) Are you making money from the BBQ, where does it go?

A: The days that we make money, we just save it for following weeks. Overall we don't earn a profit. Student fees, which are meant for this purpose, incur any added expenses.

5) Is the purpose to make profit?

A: No, the purpose is to build community. The extra money, if any, will go back into the AGUS funds for future BBQs and events.

6) % Reliance on purchased of local inputs:

A: We purchase from Jackson meats and New apple farm. Jackson meats is mostly local meat, and we buy local from New Apple when possible. Exact numbers aren't known.

7) Where do your purchased foods come from? Is it consistent?

A: Veggies → Apple Hill Market

Meat→ Jackson Meats.

Other: bulk items (like pirogues) form Costco.

MARKET INDICATORS:

8) What are the factors that determine where you purchase these foods?

A: Price (we get 10% off at Jackson and New apple), Convenience (is it located close to UBC), Availability (are the quantities big enough), Loyalty (have been purchasing from Jackson and New apple for up to 10 years), Sustainability (Small, local stores... not Safeway).

9) What determines your weekly theme?

A: We decide the weekly themes at our weekly AGUS meetings. Usually the major considerations for meals is:

-The feasibility of cooking them (how many volunteers we will be having that week)

-Variety (how long it's been since we've prepared a similar meal),

-Choice (whether it can be converted into vegan and vegetarian)

-Cost (some options just aren't affordable: salmon).

We try not to duplicate meals, or meal themes, in close proximity (aka Mexican, Chinese, etc).

10) What is the most popular weekly theme during the BBQ?

A: There is none, we have a large variety. Some common meals are chili, spaghetti, and tacos. People generally seem to get excited about Mexican, and pirogues.

11) What foods do you purchase weekly?

A: Everything besides condiments, and sometimes we have leftover canned goods that can be used.

12) What foods are supplied from the farm right now?

A: None? They currently don't have appropriate food, and not in large enough quantities. We sometimes use produce from the farm in September and October and for the community dinner. But not generally in large proportions.

13) What fresh produce do you have to purchase weekly (that may be purchased from farms)?

A: We don't always purchase the same vegetables and fruit, but some common items are lettuce, tomatoes, onions, corn (canned, using fresh is not feasible), red or green peppers, cucumber. We use apples frequently in apple crisp, other deserts have included pumpkin pie, otherwise we prepare a fruit platter with strawberries, pineapple, melon, and apple.

14) Is it possible to expand the BBQ (i.e. To a larger area of land)? Is it necessary?

A: The capacity of the McMillan basement is currently 100 people. We generally have between 80 and 110 people attending. This number varies according to the time of year, during exam period less students tend to arrive. With the current amount of volunteers we could likely feed up to 200 people, since many students are GRSers who take their food to class, this likely wouldn't exceed AGORA's capacity. As of right now, it's probably not that possible or necessary to expand AGORA, ideally, if more students from other faculties wanted to attend, we could have them host their own Wed Night BBQs.

15) Are there current plans to do this?

A: There are no current plans to switch venues for the BBQ, but if the necessity was there, we could definitely entertain the idea. Also, if other faculties wanted to have their own BBQ, we would be glad to support that.

16) What is the mission statement of the BBQ?

A: To provide a venue which would facilitate community building between faculty and students of the AGUS. We don't think that sustainability was in the original mission statement, and no specific new mission statement has ever been written. But, it is mutually understood that sustainability is a concern w the Wed Night BBQ.

17) Is the BBQ also held at Agora? Do you change locations during the spring term?

A: We always have it in the AGORA basement.

SOCIAL INDICATORS

18) How and why did the BBQ started running? (manager)

A: Not exactly sure. Some years ago the AGUS president at the time started it. We believe that our old president remembered who started it, but we can't remember exactly anymore.

19) Who attends the BBQ? If students, then in what faculty? (observation)

A: GRS students, Grad students, Professors (Tom and Art pretty much every week), Foresters and some engineer students.

20) Are they in groups of close friends or making new connections with others? (observation and/or goers)

A: This is the purpose of the BBQ. Because of the bench seating it appears that ppl are meeting each other and making new friends. From volunteering we have met forestry and engineer students.

21) Any competitors for the event or for the supply of food?

A: No

22) How many people attend each week?

A: 60-100 paying customers (Average: 73 ppl). And, 85-110 people altogether.

23) Are they regulars?

A: Yes, a lot are.

24) Are they in LFS?

A: Mostly LFT, many GRS. Also, forestry and engineering.

25) Are they UBC students or faculty members?

A: Yes

26) Why are they here?

A: Community? Tradition?

27) Are there conflicts of interest with social groups (competitors, suppliers, UBC farm, others outside of LFS)?

A: No

28) Volunteer-basis employment: How many do you need? Do you have enough participants?

A: First term we had up to 15. Many of them were AGRC 100 studentnt doing their one mandatory volunteer activity.

Second term we have 2 to 5 (but up to 10). The number of volunteers depends on midterms. We also have some engineers and forestry and friends help out at times

ECOLOGICAL INDICATORS

29) How many bags of garbage do you produce each week?

A: Don't usually produce garbage, mostly compost. About 1 bag or 1/2 a bag of actual garbage per week. Things we use doesn't usually have that much packaging, and mostly we produce recycling and compost.

30) What is your recycling/composting plan?

A: Recycling and compost bins. Plant ops picks up compost and takes it to farm. Don't know what happens to recycling exactly.

31) Are all your dishes, utensils reusable?

A: Yes, mostly. And we have people wash their own plates and utensils. Sometimes when we run out of metal forks plastic forks are used.

32) How many leftovers are there? What do you do with them?

A: We allow people to take seconds, and if there are lots of leftovers to take some food home with them in Tupperware containers. All other food we pack up and put in the fridge for AGUS volunteers to eat throughout the week. Anything that isn't finished we compost.

Appendix 3: Local Food at Wednesday BBQ Survey

Survey's objectives:

We, group 26 and 16 of AGSC 450 are involved in the 2008 UBC Food System Project and are attempting to improve the food security of the Wednesday night BBQ by incorporating more local and seasonal produce. We need your help!!! As part of the AGSC community, we would like you to raise critical issues, give advice, lend recipe ideas and potentially commit to attending and helping out at future Wednesday night BBQs. Please fill out this survey thoughtfully, apply your knowledge and help shape the foodservice of your faculty.

- 1) Are you are a: Faculty/Department: _____
a) UBC Undergraduate student Gender: M / F
b) UBC Graduate student
c) UBC Staff Age (Please circle one):
d) UBC Faculty member 18 & under 19-24 25-31 33-55 e) Other: _____ 56
& over
- 2) Please indicate year of study:
_first, _second, _third, _fourth, _graduate level, _other, _does not apply
- 3) Please indicate your program or field of specialization:
a) Agroecology → Agroecology, Animal Studies, Horticulture, Resource Economics, Soils & Environment
b) Food, Nutrition & Health → Dietetics, Food Market Analysis, Food & Nutritional Sciences, Food Nutrition & Health, Nutritional Sciences
c) Global resource System
d) Does not apply
e) Other: _____
- 4) Have you been to a Wed. Night BBQ?
a) yes b) no
- 5) If **no**, why not?
a) too busy b) does not fit my schedule c) no one to go with d) do not know what it is about
e) question does not apply to me (answered yes to question 4), f) other (please specify) _____
- 6) If yes, how often do you come?
a) all the time b) frequently, c) occasionally d) question does not apply to me
- 7) If yes, where did you first hear about the Wed. night BBQ?

a)from a friend b)from an email c)AGUS rep; presented in my class d) other (please specify):_____

8) Do/would you have any preference for food choices available at the BBQ? Please circle all that apply?
a) ethnic (examples such as Chinese, Italian, Mexican, Greek, etc.) b)vegan c) raw d)other _____

9) Are you a:
a) vegan b)vegetarian c)meat eater d)selective meat eater, e)other_____

10) If you have been to a BBQ what do you think of the quality for the price?
a)expensive b)affordable c)needs improvement (please specify)_____, d)question does not apply

11) Would you be more inclined to come to the Wed. night BBQ if it was:
a)local b)organic c) seasonal d) local, organic and seasonal?, e)had a vegan option
f)other (please elaborate)_____

12) Would you be willing to pay more if the food was local/seasonal?
a)yes b)no

If **yes**, how much more than the current \$5 would you be willing to pay?_
a) 10% b) 25% c) 50%

13) Have you volunteered for the Wed. night BBQ in the past?
a) yes b)no

If **no**, would you be interested in volunteering?
a) yes b)no

If **yes**, what would you prefer to do?
a) preparation b)shop c)grill d)cleanup f)question does not apply

14) Do you know where the food supply of for the Wed. night BBQ is from?
a) yes b)no

If yes, do you think this is sustainable according to the definition of food security:
a) Affordability b) availability c) appropriateness d) accessibility e) safety f) sustainability
(please circle all that you feel apply)

15) If any, what aspects of the Wed. night BBQ do you think are not sustainable?
(please elaborate) _____

16) Do you think the Wed. night BBQ in general be improved?
a) yes b) no c) Don't know
If yes, how do you think it could be improved? (please elaborate)

17) Do you think the nutritional value of the Wed. night BBQ is:
a) sufficient, b)balanced, c) lacking (please elaborate)_____, d)question does not apply

18) Do you have any delicious recipes that us local/seasonal ingredients that you would like to share with the AGUS?
a) yes b) no

If **yes**, please share by sending them to (put our email address here)
If you have any questions or concerns, please email (name) at (put our email address here)

Thank You for Completing this Survey

Appendix 4: Purchasing Template and Food Miles

Evaluation Template (Indian Cuisine)

Recipe:

VEGETABLE CURRY:

15 package Indian Madras Curry
10 large onion, sliced
40 carrots, chopped
30 potatoes, chopped
10 head cauliflower, cut into florets
8 cup frozen peas
30 yams chopped
15 tins lite coconut milk
Water
Spices to taste.

TANDOORI CHICKEN

16 pounds chicken, cut into pieces
8 teaspoons salt
8 lemons, juiced
10 cups plain yogurt
4 onion, finely chopped
8 clove garlic, minced
8 teaspoon grated fresh ginger root
16 teaspoons garam masala
8 teaspoon cayenne pepper
8 teaspoons finely chopped cilantro

RAYTA SALAD RECIPE

15 cucumber
25 tomato
10 head iceberg lettuce (chopped)
15 limes
Sugar
Vinegar
Chilli powder
Cilantro
salt and pepper

MANGO LASSI

8 cup yogurt
24 Tbsps of honey
16 cups frozen mango
8 tsp cumin seed
A pinch of salt
Sliced almonds
Sweetened coconut
Raisins

Shopping:

Store	Item	Quantity	Weight	Origin	Processing	Price
New Apple Farm	Lettuce	12	1.6 lb ea	Panama	Packaged	0.89 ea
	Cucumber	10	1lb ea	Mexico	Packaged	1.50 ea
	Cauliflower	8	1.5 lb ea	USA	Packaged	0.99/lb
	Tomato		7lb	Mexico	No	1.29/lb
	Onion		10 lb	BC	No	1.29/lb
	Potato		22 lb	BC	No	0.54/lb
	Yam		13.5 lb		No	0.69/lb
	Carrot		11 lb		No	7.72 all
	Cilantro	3	1 lb	Mexico	No	0.49 ea

	Oranges		3.5 lb	USA	No	1.9/lb
	Coconut Juice	14	400mL	Thailand	Heat treated and canned	0.99 ea
	Lyche Juice	2	565g	Thailand	Heat treated and canned	1.99 ea
	Curry Powder	12	50g	Thailand	Dried and packaged	23.27 all
Safeway	Yogurt	3	750 mL	Product of Canada	Pasteurized and packaged	3.00
	Happy Planet Juice	2	1.89 L	Product of Canada	Pasteurized and packaged	5.56
	Honey	1		Product of Canada	Pasteurized and packaged	6.29
	Rice	1	10 Kg	Thailand	Dried and packaged	12.99
	Coconut	1	1 kg	Philippines	Processed and packaged	3.99
	Raisins	1	1.5 kg		Dried	0.69 / 100g
	Almonds		1 kg		Processed	2.21/100g
	Mangos	8	1kg		No	1.50
	Ice Cream	4	4 l	Product of Canada	Processed and packaged	15.69 all
Jackson's Meats	Chicken Breast		16 lbs			114.24 all

Food Miles

Item	Quantity	Weight	Total weight in Kilograms	Origin	Distance from origin to Vancouver	Food Miles using weight and distance
Lettuce	12	1.6 lb ea	8.7kg	Panama	6018km	57.64kg CO2 ~182.41km drive
Cucumber	10	1lb ea	4.5kg	Mexico	3934km	19.49kg CO2 ~61.68km drive
Cauliflower	8	1.5 lb ea	5.5kg	USA		
Tomato		7lb	3.2kg	Mexico	3934km	13.86kg CO2 ~43.86km drive
Onion		10 lb	4.5kg	BC		
Potato		22 lb	10kg	BC		
Yam		13.5 lb	6.1kg			
Carrot		11 lb	5kg			
Cilantro	3	1 lb	1.4kg	Mexico	3934km	6.06kg CO2 ~19.18km drive
Oranges		3.5 lb	1.6kg	USA		
Coconut Juice	14	400mL		Thailand	11819km	
Lyche Juice	2	565g	1.1kg	Thailand	11819km	14.31kg CO2 ~45.28km drive
Curry Powder	12	50g	0.6kg	Thailand	11819km	7.81kg CO2 ~24.72km drive
Yogurt	3	750 mL		Product of Canada		
Happy Planet Juice	2	1.89 L		Product of Canada		
Honey	1			Product of Canada		
Rice	1	10 Kg	10kg	Thailand	11819km	130.13kg CO2 ~411.80km drive

Coconut	1	1 kg	1kg	Philippines	10563km	11.63kg CO2 ~36.80kmdrive
Raisins	1	1.5 kg	1.5kg			
Almonds		1 kg	1kg			
Mangos	8	1kg	8kg			
Ice Cream	4	4 L		Product of Canada		
Chicken Breast		16 lbs	7.3kg			
TOTAL						260.93kg CO2

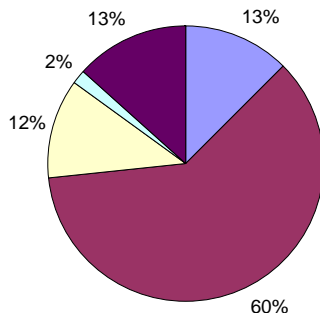
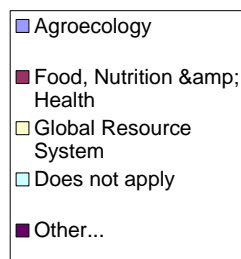
(FC, 2007)

Appendix 5: Survey Results (For questions # 3, 4a, 4b, 4c, 6, 8, 9, and 14)

-due to technical difficulties, we are unable to show the full results of our survey.
Below are the statistical representations of few of the most significant results:

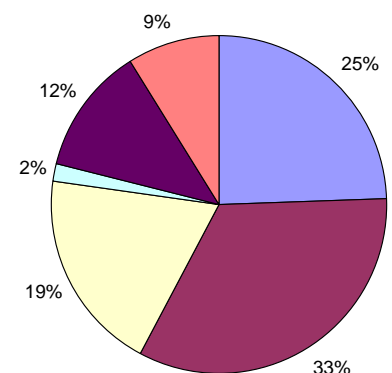
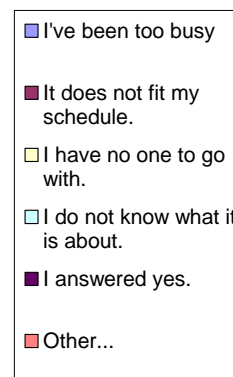
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Programs of Respondents



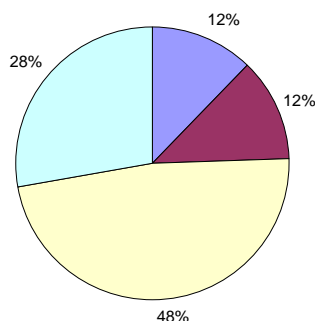
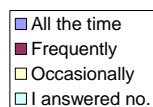
4a

Reasons for not going to BBQ



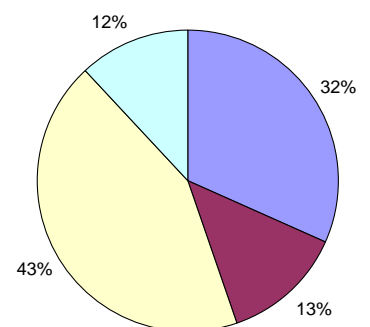
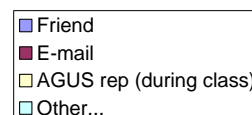
4b

How often do you attend Wed. Night BBQ?



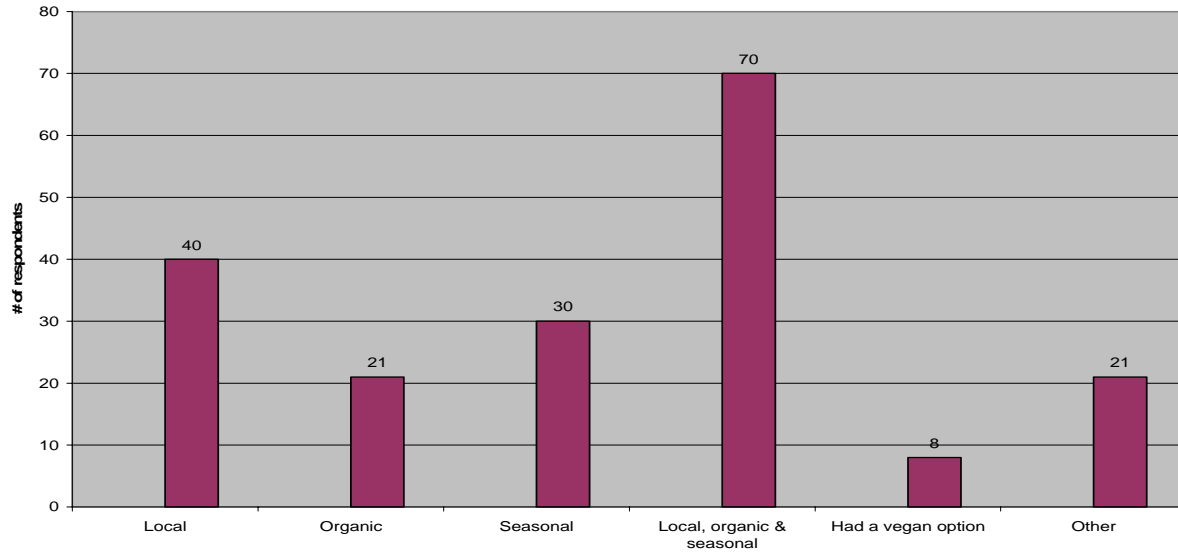
4c

How did you first hear about it?



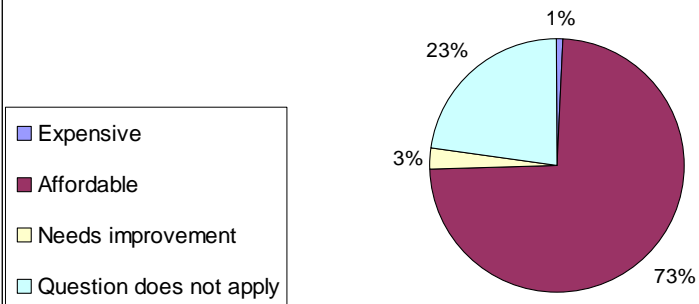
6

Factors attracting people attending Wed. Night BBQ



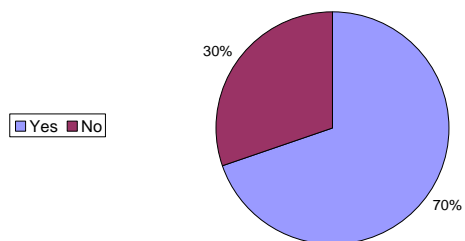
8.

What do you think of the quality for the price?



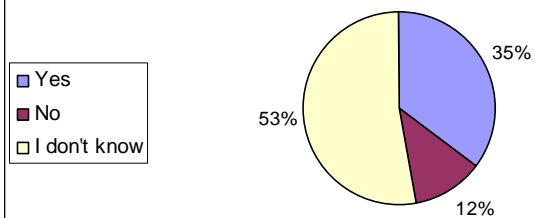
9

Would you be willing to pay more if the food was local/seasonal?



14

Do you think the Wed. Night BBQ in general be improved?



Appendix 6: Farm Table

	Ralph's Farm Market	Yellow Barn Country Produce	Howard Wong Farms	Forstbauer Natural Food Farm
Location	Langley	Abbotsford	Abbotsford	Chilliwack
Travel Time	63.7km (1hr 9mins)	93.1 km (1hr 24mins)	79.1km (1hr 27mins)	117km (1hr 43mins)
Farm Availability	Year round ☎: (604) 532-3033	Year round ☎: (604) 852-0867	Year round ☎: (604) 853-3829	Year round ☎: (604) 794-3999
Products Available		-specialty corn, homegrown vegetables, BC fruits local berries -Specialty Products: natural honey, salad dressings, sponge toffee, Rempels farmer sausage, Helms perogies, Schneiders popcorn, flax, hazelnut oil, pure maple syrup	potatoes, corn, green and red cabbage, pumpkins, and all squash plus many more veggies; At their farm, they grow corn, pumpkins, squash, but they also sell other vegetables. However, these other vegetables may not be local.	certified organic blueberries, strawberries, beets, blue lake pole beans (green beans great for canning and freezing), carrots, chard, dill, pickling and regular cucumbers, kale, lettuce, salad and mixed Asian greens, potatoes, pumpkins, summer and winter squash, zucchini, and most other vegetables; certified organic free range eggs and organic free range eggs and organic raised, grass fed beef; access to certified organic / bio-dynamic Okanagan fruits and organic golden flax products
Price Range		Potato: 49¢/pd Tomato: 99¢ to \$2.49/pd Apple: 49¢ to \$1.99/pd Onions: 99¢ to \$1.29 Beans: 99¢ to \$1.29		
Farming Practices		-not organic -farm produces potatoes & tomatoes, beans -ship in other products for retail	Import some organic, but what they grow is not organic	Certified organic; biodynamic
Minimum Purchase		-none		
Transport Service		-no delivery, pick-up only		
Contact Method		-telephone		
Comments		-ideal place to purchase long-storage items as it quite far for a weekly drive -good prices for local foods, but not organic		(far, but also sell at farmers' markets)

	Birchwood Dairy's Farms	RossDown Farm Market	Limbert Mountain Farm	Mary's Garden	Westham Island Herb Farm
Location	Abbotsford	Abbotsford	Agassiz	Surrey	Delta
Travel Time	87.3km (1hr 24 mins)	75.5km (1hr 18mins)	136 km (1 hr 56 mins)	47.7km (48mins)	33.5km (43mins)
Farm Availability	Year round ☎: (604) 857-1315	Year round ☎: (604) 856-4909	March to December ☎: (604) 796-2619	May to November ☎: (604) 576-9297	May to October ☎: (604) 946-4393
Products Available	-ice cream, yogurt, cheddar cheese, fresh cheddar curd, milk products and feta cheese -some fresh produce	Brol, tomatoes, onion, peppers Chickens, turkeys, poultry, ducks -fresh BC grown vegetables. -Okanagan tree fruits and local berries in season -Specialty items: locally produced honey, organic juices, ethnic breads and ice cream.	heirloom tomatoes plants, herbs, garlic and chestnuts	-grows: tomatoes, potatoes, onions, carrots, beets, spinach, lettuce, radishes, cabbage, brussel sprouts, parsnips, turnips, beans, broccoli, cauliflower, sweet corn, herbs, cucumbers, strawberries, cantaloupe, eggplant, leeks, peppers, squash, rhubarb, kale, pumpkins, zucchini, Swiss chard, kohlrabi, celeriac, and cut flowers -offer a selection of fruits, vegetables, jams, syrups, and honeys -have free-range eggs, dairy products, bread and pastas	-have a wide variety of fruits and veggies, herbs
Price Range		Weekly estimation			-varies on variety
Farming Practices					-relatively small scale
Minimum Purchase					-none
Transport Service		Delivery services with time consideration.			-no delivery service -pick-up
Contact Method	-Phone				-E-mail
Comments	-focuses on dairy products				-farm not open for the majority of the school months -lacking legumes ³⁸

	Surrey Farms	Capella Farm Market	Krause Berry Farms	Wisbey Veggies	Cloverdale Farm Market
Location	Surrey	Surrey	Aldergrove	Abbotsford	Surrey
Travel Time	50.3km (49mins)	48.5km (52mins)	67.7 km (1 hr 11mins)	94.1km (1hr 25mins)	51.5km (53mins)
Farm Availability	May to October ☎: (604) 574-1390	May to October ☎: (604) 576-2465 capellafarm@hotmail.com	June to December ☎: (604) 856-5757	June to December ☎: (604) 823-4617	June to October ☎: (604) 574-9905 farmer@cloverdalemarket.com
Products Available	-mainly hand-picked berries -corn (July-Oct) -seasonal vegetables -bring in Okanagan fruits	-Super-sweet corn, squash, gourds, ornamental corn, peas, beans, strawberries, pumpkins, herbs, potatoes, broccoli, cauliflower, cabbage, hay and cut flowers -tomatoes, peaches, nectarines, plums, apricots, apples, melons, and cherries. I bring in the best tasting strawberries and blueberries grown without sprays -raise beef, chicken, pork and eggs	mainly berries, along with peas, beans, freshly dug potato nuggets, corn and artichokes. Processed Food: Honey, jams, jellies, syrups and fruit spreads are also available.	-produce home-grown veggies -herbs, pumpkins, berries, apples, hothouse tomatoes, Okanagan fruit, corn	-blueberries -strawberries, raspberries, sweet corn, and potatoes
Price Range					
Farming Practices		-market		-weekly self service purchases year-round	-small scale
Minimum Purchase					
Transport Service	-U-pick	-pick up -U-pick strawberries	U-pick		-U-pick
Contact Method	-info obtained online	-info obtained online		-info obtained online	-Phone
Comments	-unable to contact by phone -farm not open for the majority of the school months -focus is on berries, lacking produce for our needs	-unable to contact because closed for the season		-unable to contact by phone	

	<u>Maan Farms</u>	<u>KBF Nursery and Farm Market</u>	<u>Emma Lea Farms Ltd.</u>	<u>Drieddiger Farms Ltd.</u>	<u>Silverhill Apple Orchard</u>
<u>Location</u>	<u>Abbotsford</u>	<u>Abbotsford</u>	<u>Delta</u>	<u>Langley</u>	<u>Mission</u>
<u>Travel Time</u>	<u>77.8 km (1 hr 17mins)</u>	<u>93.5km (1 hr 24 mins)</u>	<u>32.6km (44mins)</u>	<u>57.4km (1hr 5mins)</u>	<u>71.8km (1hr 31mins)</u>
<u>Farm Availability</u>	<u>June to October</u> <u>☎: (604) 852-5722</u>	<u>June to September</u> <u>☎: (604) 852-9033</u>	<u>June to August</u> <u>☎: (604) 946-8216</u>	<u>June to August</u> <u>☎: (604) 888-1665</u>	<u>July to August</u> <u>☎: (604) 820-7957</u>
<u>Products Available</u>	<u>Berries, squash and gourds</u>	<u>beans, beets, potatoes, pumpkins, squash and peas</u>	<u>strawberries, raspberries, blueberries, tayberries, loganberries, boysenberries, blackberries, and black currants; new potatoes and fresh veggies</u>	<u>strawberries, raspberries, blueberries, red and black currants and gooseberries; Fresh baked fruit pies and homemade fruit jams</u>	<u>strawberries and cherries starting in July peaches apples and plums in August as well as heirloom tomatoes and a selection of garden produce</u>
<u>Price Range</u>					
<u>Farming Practices</u>				<u>Integrated pest management</u>	
<u>Minimum Purchase</u>		<u>sell on retail and wholesale basis.</u>			
<u>Transportation</u>	<u>U-pick</u>	<u>U-pick or delivery</u>	<u>U-pick available for berries</u>	<u>U-pick available</u>	<u>No delivery</u>
<u>Contact Method</u>					
<u>Comments</u>					

	Amabile's Garden	Ellis Famrs	JPS Greenhouse	W&A farms	
<u>Location</u>	<u>Aldergrove</u>	4690 Kirkland Road Delta	Blundell Adnd sideaway road.	No 8 road on Newwestminster highway	
<u>Travel Time</u>	<u>58.2 km (53 mins)</u>	Approx 1.2 hrs			
<u>Farm Availability</u>	<u>July to September</u> <u>☎: (604) 856-9591</u>	<u>☎: (604) 946-4393</u>	<u>e: sarabai@shaw.ca</u>	<u>☎: (604) 278-5667</u>	<u>☎: (604)</u>
<u>Products Available</u>	<u>-sweet corn, baby beets, nugget potatoes, butterhead lettuce, walla walla onion, Genovese basil</u>	- spoke to farm owner, he was not interested in working with AgUS. He was involved in large scale food production, mentioned that his daughter does small- scale. Provided us with her number (604) 312-1023. She grows onions, potatoes, squashes, corn. Interested but not sure she can support demand quantity.	-Jose Sarabai is the owner -Grow: mizuna, bok choi, lettuce, arrugula.	- Currently (in March) have cabbage, onions, and potatoes. In seasona they have a lot more including strawberries, squash, kale, and leeks.	
<u>Price Range</u>	<u>-varies on variety</u>				
<u>Farming Practices</u>		-large scale -small scale			
<u>Minimum Purchase</u>	<u>-none</u>				
<u>Transportation</u>	<u>-pick-up</u>				
<u>Contact Method</u>	<u>Phone</u>	Phone	Second party information	Second party information	
<u>Comments</u>		Ellis Famrs	JPS Greenhouse	W&A farms	

-farms placed in order of farm availability during the school year, then by proximity to UBC

Wholesalers:

- 1) Pacific Fresh Produce: (604 253-1551). Not opened Saturdays. They have both local and imported produce. No account necessary and were fine with pickup or delivery. Need just a few days warning. In mar had local apples, hothouse tomatoes, and cucumber. Willing to fax entire produce list, follow-up.
- 2) Vancouver Wholesalers: (604 251-3330). Called, no answer. Not opened saturays.
- 3) Product Terminal (604 251 3383). Have both impored and local produce. Open until 11:00am on Satu, and between 7:00am – 3:00 pm weekdays. We're very helpful, had no minimum purchase.

Appendix 7: Seasonal Availability Chart

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												

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												

STORABLE CROPS

CROP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BEETS												
CABBAGE, Green												
CABBAGE, Savoy & Red												
CARROTS												
ONIONS, Yellow												
PARSNIPS												
POTATOES, new "nuggets"												
POTATOES, Reds												
POTATOES, Kennebec												
POTATOES, Whites												
POTATOES, Yellow												
POTATOES, Russets												
RUTABAGAS												
PUMPKIN												
SQUASH												
TURNIP, White												

Good Supply

Excellent Supply

Appendix 8: Monthly Shopping Lists

SEPTEMBER

Shopping List	Quantity	Suppliers
Purchase fresh		
Lettuce	7 kg	
Asparagus	1.25 kg	
Pumpkins	2	
Eggs	25	
Onions	32 kg	
Celeries	12 kg	
Pumpkin seeds	7.5 cups	
Feta cheese	5 kg	
Carrots	8 kg	
Parsley	3 lb	
Chicken breast	38 lb	
Butternut Squash	20kg	
Apples	68 kg	
Cherry tomatoes	25 kg	
Young Kale	20 bunches	
Corn	10 kg	
Yogurt	20 kg	
Raspberry	2 kg	
Blackberry	2 kg	
Tomatoes	20 kg	
Cucumber	7 kg	
Cauliflower	7 kg	
Pears	20 kg	
Grapes	1 kg	
Red Leicester	15	
Purchased and Stored		
Sun-dried tomatoes	3 lb	
Peas	25 cans	
Garlic	10	
Ginger	3	
Coucous	20 kg	
Caster sugar	1 kg	
Wholegrain mustard	1 kg	

OCTOBER

Shopping List	Quantity	Supplier
Purchased and Stored		
Berries	1.5 kg	
Rhubarb	1.5 kg	
Beans	5 kg	

Purchased Fresh		
Zucchini	30kg	
Onions	5kg	
Green pepper	7kg	
Sweet pepper	5kg	
Celery	5kg	
Butternut squash	25	
Celeriac	25	
Garlic heads	10	
Sprigs of thyme	50	
Savoy cabbage	13	
Apples	335 (~134kg)	
Sage leaves	1kg	
Eggs	25	
Corn	50 cobs	
Romaine	7kg	
Iceberg Lettuce	6 kg	
Tomatoes	8 kg	
Red Onion	15 kg	
Cucumber	6 kg	

NOVEMBER

Shopping List	Quantity	Supplier
Purchased Fresh		
Cabbage	15	
Carrots	5 kg	
Onion (salad)	13 kg	
Beef	30 kg	
Mushrooms	15 kg	
Apples	30 kg	
Bean sprouts	4 kg	
Green onions	5 kg	
Red onion	2 kg	
Lean Pork Loin	25 lb	
Pears	150	
Cauliflower	10 kg	
Eggplants	190	
Broccoli	10 kg	
Tomatoes	12 kg	
Eggs	50	
Purchased and Stored		
Garlic	15	
Ice cream	2 L	

DECEMBER

Shopping List	Quantity (estimates)	Supplier
Purchase Fresh		
Green lentils	7.2 lb	
Large tomato	17	
Green Peas	5.5 lb	
Fresh mint	1.06 cups	
Fresh chives	17 grams	
Fresh basil or parsley	15 grams (~30 leaves)	
Sausage (regular- or reduced-	200	

fat)		
Parsnips	100	
Medium Potatoes	100 or 150	
Brussels sprouts	8.75 kg	
Ripe pears	100	
<i>Purchased and Stored</i>		
Clear Honey	781 mL	

JANUARY

Shopping List	Quantity	Suppliers
<i>Purchased and Stored</i>		
Garlic	15 heads	
Mixed nuts and seeds	5lbs	
Potatoes	40kg	
Onions	25	
Shallot	10kg	
Ginger	3kg	
Vegetable stock	6L	
Butternut squash	30kg	
<i>Purchased Fresh</i>		
Apple	30kg	
Beets	10kg	
Fresh dill	200g	
Lime	20	
Cherry tomato	10kg	
Spinach	30kg	
Rhubarb	15kg	
Parsnips	7.5kg	
Leeks	5kg	
Mushroom	4kg	
Large chestnut mushrooms	10kg	
Egg	271	
Celery	5kg	
Green onion	5kg	
Iceberg lettuce	10kg	
Boneless pork loin	25lbs	
Whole beetroot	50kg	
Carrot	20kg	
Pack taleggio cheese	10kg	
Thyme and rosemary leaves	2kg	
Pears	20kg	

FEBRUARY

Shopping List	Quantity (estimates)	Supplier
<i>Purchased and Stored</i>		
Onion	10kg	
Melon	2kg	
Strawberries (or berries)	2kg	
Peas	2kg	
Garlic	0.5kg	
Cilantro	0.5kg	
Beans	5kg	
Pumpkin	5kg	
<i>Purchased Fresh</i>		
Romaine lettuce	10kg	

Cucumber	9kg	
Green onions	3kg	
Cherry tomatoes	3kg	
Celery	3kg	
Iceberg lettuce	10kg	
Fruit	10kg	
Cabbage	12kg	
Apple	35kg	
Fresh parsley	500g	
Leeks	12kg	
Baby spinach leaves	6kg	
Carrots	9kg	
Potatoes	11kg	
Cauliflower	9.5kg	
Yams	11kg	
Mixed greens	11kg	
Eggs	24	

MARCH

Shopping List	Quantity	Supplier
Purchased Fresh		
Cucumbers	12 kg	
tomatoes	29 kg	
Scallions	4 kg	
Mint	2 kg	
Parsley	2 kg	
Beef	30 kg	
Potatoes	16 kg	
Onion	60 kg	
Carrots	14 kg	
Mushroom	10 kg	
Apples	115 kg	
Eggs	25	
Garlic	5	
Red Cabbage	30 kg	
Green Cabbage	7 kg	
Cranberries	3 kg	
Pecan	3 kg	
Chicken	16 lbs	
Green peas	4 kg	
Turnip or rutabaga	2 kg	
Corn	2 kg	
Green onion	8 kg	
Green pepper	13 kg	
UBC Salad Greens	11 lbs	
Red Pepper	5 kg	

Appendix 9:

Local Food Database:

Meal Delivery Services:

- [Sliced Tomatoes](#)

Take Out Local Food:

- [Curry 2 U - Granville Island](#)

Shop for Local Food:

- [Capers Whole Foods Market](#) (Vancouver, West Vancouver)
- [Choices Markets](#) (Lower Mainland - various locations)
- Drive Organics (Vancouver - 1045 Commercial Drive)
- [East End Food Cooperative](#) (Vancouver - East)
- [Edible British Columbia](#) (Vancouver - Granville Island)
- [Fraser Valley Farm Direct Marketing Association](#) (Fraser Valley)
- [Hopcott Premium Meats](#) (Pitt Meadows)
- [The Organic Grocer](#) (Surrey)
- [Planet Organic Market](#) (Port Coquitlam)
- [Small Potatoes Urban Delivery](#) (Vancouver - Granville Island)
- [Stong's Markets Ltd.](#) (Vancouver - West)
- [Terra Breads](#) (Vancouver - various locations)
- [UBC Farm](#) (Vancouver - West)
- West Valley Market (Vancouver - 1156 Bute Street)
- [Your Local Farmers Market Society](#) (Vancouver - various locations)

Grocery Delivery:

- [Small Potatoes Urban Delivery](#) (Greater Vancouver & Sea-To-Sky)

Dine Out for Local Food:

- [Aurora Bistro](#) (Vancouver - East)
- [Beyond Restaurant & Lounge](#) (Vancouver - Downtown)
- [C Restaurant](#) (Vancouver - Downtown)
- [Cactus Club Café](#) (Various Locations)
- [Capilano Suspension Bridge](#) (North Vancouver)
- [Edible Planet](#) (Vancouver - East)
- [Elixir at the Opus Hotel](#) (Vancouver - Downtown)
- [Le Gavroche Restaurant](#) (Vancouver - Downtown)
- [nu restaurant + lounge](#) (Vancouver - Downtown)
- [Pair Bistro](#) (Vancouver West)
- [Raincity Grill](#) (Vancouver - Downtown)
- [Rocky Mountain Flatbread Company](#) (Vancouver - West)
- [Vij's Restaurant](#) (Vancouver - West)
- [West Restaurant](#) (Vancouver - West)
- [Wild Rice](#) (Vancouver - Downtown)

Growers, Producers:

- Apple Lane Orchard (Denman Island)
- [Big Bear Ranch](#) (Horsefly)
- [Forstbauer Family Natural Food Farm](#) (Chilliwack)
- Glenwood Valley Farms Inc. (Langley)
- Glorious Organics Cooperative (Aldergrove)
- [Goat's Pride Dairy at McLennan Creek](#) (Abbotsford)
- [Hoodoo Ranch](#) (Spences Bridge)
- [Iron Maiden Seafoods](#) (Sooke)
- [Little Qualicum Cheeseworks](#) (Parksville)
- [Lowland Herb Farm](#) (Chilliwack)
- [Meadowfresh Dairy Corp](#) (Coquitlam)
- [Natural Pastures Cheese Company](#) (Courtenay)
- [North Arm Farm](#) (Pemberton)
- Painted River Farm (Surrey)
- Picked For You (Maple Ridge)
- [Polderside Farms Inc.](#) (Chilliwack)

- [Poplar Grove Arbour](#) (Agassiz)
- [Raincoast Trading Ltd.](#) (Delta)
- [Silverhill Apple Orchard](#) (Mission)
- [Similkameen River Organics](#) (Cawston)
- [Vale Farms Grassroots Ltd.](#) (Lumby)
- [Yarrow EcoVillage Farm](#) (Chilliwack)

Processors:

- [Anita's Organic Grain and Flour Mill Ltd.](#) (Chilliwack)
- [Naturally Homegrown Foods Ltd.](#) (Maple Ridge)
- [Om Natural Products](#) (Port Coquitlam)

Local Food Distributors:

- [BC Fresh Inc.](#) Distributing root vegetables grown in the Fraser Valley.
- Biovia Organic Link Ltd. (Sourcing local organics and more for Vancouver & Sea-to-Sky chefs. Also has short-term cold storage available in Vancouver.) 604-633-9588
- [Hopcott Premium Meats](#) (Pitt Meadows)
- [Small Potatoes Urban Delivery](#) (Distributing [Avalon Dairy](#) Products in Greater Vancouver & Sea-to-Sky)

Local Food Promoters:

- [FarmFolk/CityFolk Society](#)
- [Fraser Valley Farm Direct Marketing Association](#)
- [100 Mile Diet Society](#)

“(<http://www.getlocalbc.org/en/where.php>)