UBC Social Ecological Economic Development Studies (SEEDS) Student Report

The University of British Columbia Food System Project (UBCFSP) Scenario 2c: Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

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University of British Columbia

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The University of British Columbia Food System Project (UBCFSP)

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Abstract

The University of British Columbia Food System Project (UBCSP), a five-year participatory action research project of the campus food system, is in its third year of process. With the help and

support of different departments and stakeholders at UBC, a series of studies have been done by the students of Agriculture Sciences (Agsc) 450. This year, scenarios addressing the desirability and feasibility of new initiatives for a sustainable campus food system were the focus of the team's research. Students investigated diverse areas of the food system based on the inter-relations between the stakeholders: the Alma Mater Society Food and Beverage Department (AMSFBD), UBC Farm, UBC Waste Management, UBC Campus Sustainability Office (CSO) and its Social, Ecological, Economic and Development Studies (SEEDS) programs, and also the Faculty of Agricultural Science (FAS).

In this context, our research team has taken on the multiple feasibility considerations for holding a successful Food Security conference using local foods at UBC. The research team will explore the guiding vision statement for all participants of the UBCSFP and link these concepts with the very hands-on process of planning a food event. We conclude that it is feasible to hold a food conference at UBC using local foods and suppliers. Nevertheless, we also stress that the feasibility will depend on several important qualifications, including some unconfirmed availability of products. We also recognize that the conference cannot be fully supplied by the local food system, and the ultimate decision about how local is ideal will have to be made by the key stakeholders. The challenges and limitations encountered in the process will also be discussed. The team will put forward recommendations for the key stakeholders in this project: the future researchers of Agricultural Sciences 450, the UBC Farm, and the AMSFBD. [redacted]

Introduction

In collaboration with our Agsc 450 colleagues and our UBCFSP partners, our research team will investigate the case study of organizing a locally supplied food conference at UBC for the Community Food Security Coalition (CFSC) in August 2006. Through this component, we will explore the broader concept of the re-localization of the UBC food system. Our approach will be to study re-localization's meaning, desirability and feasibility by asking the questions "what?", "why?", and "how?".

As part of a multi-dimensional, ongoing research initiative, our team recognizes the value of making links with both previous and current project partners to expand the scope and application of our research. We will build on the work of our Agsc 450 colleagues from 2004 and their research into the feasibility of using local distributors to supply the AMSFBD and the possibility of a Community Supported Agriculture (CSA) scheme for enhancing the financial stability of the UBC Farm. We also make our recommendations regarding the feasibility of holding the local food conference with the research of our current Agsc 450 colleagues in mind. We see our work making connections particularly to scenarios 2a (Local foods procurement for the AMSFBD and UBC Food Services), 3 (Education and awareness of re-localization) and 5 (UBC Farm development). Finally, we have included a reflection on the challenges and limitations of our research process to guide future efforts.

Our hope is that this joint effort with a focus on connections between the findings of all the research teams will provide a solid base upon which to continue the UBCFSP. [redacted]

The Vision Statement: Team Reflections

Overall, our team supports the seven guiding principles because they are concise and ecologically, culturally, nutritionally, and financially ambitious. We are composed of individuals from a variety of cultural, life experience and academic backgrounds; however, food is common to all of our programs. We all appreciate the need to have healthy food that is produced using sustainable practices so that a safe and nutritious food supply can be guaranteed for ourselves and for generations to come. We are particularly influenced by our understanding of and appreciation for sustainability, which arose from our experiences with Agsc 250, 350 and currently 450.

Upon further examination of the principles, we realized that some were not completely clear to us. For instance, the second guiding principle does not state what is defined as local. The sixth guiding principle states that all participants, including consumers, of the Sustainable UBC Food System must understand all components of the process for us to eat and dispose of our food. However, it will be very challenging to educate all consumers and make them appreciate the process.

In addition, the Vision Statement should acknowledge how local, organic and fair trade will be prioritized. If one cannot have all three, then which parameters carry more weight? For instance, our group feels that organic food traveling great distances should not take priority over locally grown food.

Lastly, the group agrees with the seventh guiding principle in that while there is a need to foster strong local food systems, these must be embedded within a global food system to meet fully humanity's needs. We envision sustainable, socially just, local food systems connecting with, and creating positive change in the global food system. [redacted]

The Community Food Security Coalition Conference

The *Community Food Security Coalition (CFSC)* has expressed interest in holding a food conference at UBC. In response, Nancy Toogood, the manager of the AMSFBD, requested a detailed

study of the feasibility of organizing such a conference supplied with local foods. The 2006 CFSC conference cannot be held at UBC; however, our team views the value of our report as a planning model for future conferences. The CFSC conferences are part of the "Farm to School" and "Farm to College" programs that the CFSC is currently promoting throughout North American university and college campuses. The programs are designed to support local farmers because of the increasing costs of land and water, and the decreasing markets due to globalization and international trade (CFSC website). Moreover, the programs are meant to educate students about eating "local" (Bellow et al. 1). The presence of fast food restaurants and the absence of fresh foods in many university campuses have resulted in a lack of awareness of where and how food is grown, and what is considered healthy eating (Bellow et al. 3).

Our group has created the theme "Land, Food, and Community – Eat BC", for the conference to demonstrate the feasibility of producing, supplying, and eating locally.

Problem Definition and Definition of Local Food

The summer 2004 Agsc 450 class "found that re-localizing fresh produce at UBC is very ecologically feasible since 83% of the produce ordered by UBC and AMS Food Services can be obtained from a BC source. However, due to the price and quality concerns, only…23% of produce that AMS Food Services is purchasing are currently being obtained from a BC source." (Chai et al. 3).

Determining the feasibility of re-localization of food for the CFSC conference will involve: examining whether the UBC Farm is able to provide quality food in guaranteed quantities and in a financially feasible manner; if food distributors can be found that produce sustainable products or that demonstrates an awareness of sustainability issues, can provide local products, and can provide food to meet the quantity and delivery requirements, in an economically viable manner.

Re-localization of food involves switching our dependence from the global food system towards the local food system – local growers, local producers, and independent, local food providers.

With respect to scenario 2c, we have defined local food as food that is grown and produced within British Columbia's (BC) borders. Moreover, it is desirable for food to come from as nearby as possible. We also knew that the potential existed that BC would not be able to provide all of the needed food. The debate emerged as to whether it would be better to order food from eastern Canada or in the state of Washington. In the end we decided that food should come from Canada

even if it could not be obtained in BC. Supporting "local" is to support the local economy, be it the BC or the Canadian economy.

Our process of thinking about our definition of local food can be envisioned as a layered process, much like the multiple layers of an onion. We recognize that many products needed for a high-end food conference may not be possible to obtain locally, such as the ingredients for a risotto, spices or coffee and tea. When we assess our success in planning a locally supplied conference, we will go as far as to consider all foods obtained in Canada to be local, but this is not the ideal. We will also consider foods obtained from local distributors, such as Discovery Organics, Sunrise Tofu, and Hills Foods to fit our criteria because they are the next best option. Key items such as produce, meats and other central ingredients (e.g. milk) must be obtained from the inner 2 layers of our onion model, either from UBC Farm or within BC, to meet our primary criteria of local food. We feel that this will be better received by Nancy Toogood and CFSC conference delegates.

It is necessary to examine the feasibility of re-localization because the preparation for the conference can serve as a model to inform and promote re-localization of food systems around the world. In addition, it will provide specific mechanisms that can then be applied to other scenarios for implementing the re-localization of food. [redacted]

The advantages of the local food movement have been well documented, which include: it helps to restore rural areas; rebuilds local diversity of crops ; keeps money within local communities longer ; and it costs less, as there are fewer middlemen and lower transportation costs (Halweil 7-8).

Halweil also discusses the disadvantages of the long distance food system, some of which include: it often displaces local cuisines, varieties, and agriculture; there is a greater dependence on products having preservatives and additives; the loss of local food self-reliance results in hidden costs to the environment, the agricultural landscape, and to farm communities; and farmers sell into a complex and long marketing chain of which they are a small part (farmers are not paid well and farm communities have often suffered) (6-7). [redacted]

The Role of the UBC Farm

The UBC Farm makes the UBC campus unique through its role as a center for exploring and promoting the needs of small-scale, diversified agriculture. UBC is one of the few remaining North

American campuses to benefit from having direct access to a campus farm. In addition to providing an action-learning and community outreach environment, the Farm is also essential, both symbolically and logistically, to re-localizing the UBC food system.

The UBC Farm has a unique role to play in making UBC a dynamic and innovative venue for a local food conference such as the Community Food Security Coalition (CFSC) conference. The UBC Farm can supply high quality, fresh, produce to the conference menu. Our team focused on menu choices that would showcase the quality of the UBC Farm's produce, such as a baby greens salad garnished with ground cherries and a feature summer squash soup. In addition, the Farm's involvement can offer a highly visible opportunity for conference delegates to be a part of the process of the re-localization of the food system at UBC. The contract between the AMSFBS and the UBC Farm is a model for Community Supported Agriculture[1] (Pretty 2) and institutional support of local food providers. Conference delegates could link the food they are eating to the ideas they are learning and sharing, and feel as if they are directly supporting a worthy cause such as the development of the UBC Farm. A visit to the UBC Farm during the conference, as well as the inclusion of speakers from the farm would enhance the experience of conference delegates.

Methodology: Menu Planning Process

In order to plan the 'Healthy Farm, Healthy Students with some Local West Coast Flare' food conference to be held at UBC, and catering by the AMSFBD, we developed a menu using the following steps:

1. Establishing a budget
2. Locating distributors
3. Selecting recipes
4. Recipe modification
5. Recipe pricing

1. Establishing a Budget

The conference attendance is projected at 700-800 people, and we estimated a total of 750 people to facilitate our planning. Nancy Toogood of AMSFBD provided an approximate budget for the local food conference: AMSFBD allotted $50.00 per person per day, and that food expenses could

[1] CSA involves consumers paying for a guaranteed share of a farm's produce, and growers then providing produce of a guaranteed quantity and quality

be estimated at 30-35% of the $50.00. As we know that economic feasibility is very important in planning this type of event, we used the 30% factor and budgeted $15.00 per person per day.

The conference consists of a Friday night reception and Saturday breakfast, snack, lunch, and dinner, and we budgeted $15.00 for Friday and $15.00 for Saturday. Thus, the total food budget for each day is $11,250, and the total for the conference is $22,500.

2. Locating Distributors

Selecting distributors was the first step of our menu planning process because we needed to explore product availability before we could design a menu that reflected the season. We also needed to know whether August or October was the best month to hold the conference, as both were given as potential options in the scenario.

As the theme for the event centered on products from the UBC Farm, the first distributor contacted was the UBC Farm. One of our group members contacted Mark Bomford, on behalf of all of the groups assigned to scenario 2c. The first question that was addressed was whether or not, from the farm's perspective, the conference should be held in August or October. Mark stated that August would offer more variety for the choice of products, and that prices in August are generally lower because yield per acre is six to eight times higher than in October. He thought that this would apply to other distributors; however, he did say that student participation was higher in October, giving the Farm valued opportunities for outreach. Due to our concern over the already high prices of organic farm and other local products, we decided to plan our menu for August.

The next question we asked surrounded product availability. Though the farm produces many products, Mark felt it would be wise to focus on those that they can produce consistently and reliably. Many UBC Farm crops are still problematic, and the staff is still learning about production challenges associated with small-scale organic production. Based on Mark's recommendations, we selected salad mix, beets, carrots, ground cherry and squash.

As many of the products required to design a menu for a day-long conference are not available from the Farm, other distributors were necessary. Nancy Toogood stated that *Discovery Organics* and the *Fraser Valley Growers Association* understood the benefit of local food events and were easy to deal with. Through the *Fraser Valley Growers Associations* we discovered *Lower Mainland Vegetable Distributors.* Our group decided to use this amalgamated distributor as opposed to dealing with many selective distributors. Apart from *Discovery Organics* and *Lower Mainland Vegetable Distributors*, *Pro Organics*, *Hills*

Foods Ltd., *Sysco Vancouver*, and *Atlas Wine Merchants* were contacted for product and price listings. In planning our menu, Nancy Toogood wanted to ensure that the UBC Farm's role should be highlighted by planning dishes that featured Farm products, without augmentation by other sources. Thus, we had to carefully plan our menu.

Additionally, as many of our group members are studying nutrition, we felt that this was a key factor influencing our menu planning. We ensured that each of our meals contained at least three of the four food groups of *Canada's Food Guide to Healthy Eating*.

3. Selecting Recipes

In order to proceed, we had to select healthy recipes featuring the local foods available. We attempted to choose 'farm-specific' recipes that solely featured produce from the farm, while creating other recipes that enhanced the freshness and flavour of local foods.

Recipe selection was accomplished by doing an internet search. We also ensured a vegetarian option at each meal. There are many recipe websites available, but we primarily used the *Food Network Canada* website because we felt that a variety of gourmet-type recipes would be appropriate for our event. If desired recipes were not available at *Food Network Canada*, we searched other sites. We developed the following menu:

(i) Friday night reception:

Wine and cheese: The cheeses chosen for the Friday night's reception were either locally or domestically made. The locally made cheeses include *Gort's aged Gouda* and *Moonstruck Pasteurized Cheese*. The domestic cheeses chosen include tomato basil Havarti, milk provolone, and *Barri Mozza*. Conference participants will have a chance to sample different types and flavours of cheeses. Two different Okanagan, BC wines were chosen for the reception to allow for diversity, both including a white and red option.

(ii) Saturday:

Breakfast: We felt that both a hot and a cold option would be appropriate. We chose waffles with blueberry sauce as the hot option and fruit with granola and yogurt as the cold option.

Snacks: We chose two types of muffins: apple cinnamon and carrot zucchini to accentuate the availability of local apples, carrots, and zucchini in August.

Lunch: Two types of wraps were selected. The vegetarian option is the grilled eggplant with lemon aioli wrap and the non-vegetarian option is the turkey roll-up with grated carrots and green onions.

Potato salad will be available. Two soups featuring local delicacies are Salmon chowder and Squash soup, featuring squash from the UBC Farm. Fresh carrots and boiled beets from the UBC Farm will be available at each table.

Dinner: Dinner will be the highlight of the day as we will be able to feature the largest selection of tasty local foods. Ginger tofu with seasonal vegetables served on rice is the vegetarian option. Grilled Salmon with a lemon Dijon sauce and herbed grilled chicken are the non-vegetarian options. Side options include beet risotto, garlic mashed potatoes, grilled tomatoes, and salad greens from the UBC Farm garnished with ground cherries with either oil and vinegar or tangy orange dressing. Peach and apple crisp will be available for dessert. Juice, milk, tea, and coffee will be available as beverages at snack-time and at all meals.

4. Recipe Modification

Our recipes were all modified so that each meal would feed 750 people. A variety of predictions were made. To increase the accuracy of our predictions, we used surveys of our group members' preferences because we felt that our group was a sample of seven diverse people. The detailed process and calculations are provided in Appendix A.

5. Recipe Pricing

We followed our vision of local foods as much as possible when pricing our recipes. Firstly, foods from the farm were priced. Secondly, the most affordable BC foods from other distributors were priced. Thirdly, if BC products were not available, we supported good agricultural practices by pricing organic products from a local distributor. If prices were not available for certain products (in particular protein products, such as meats and tofu) from local distributors (e.g. the needed distributor did not get back to us with appropriate information), we used *Sysco* prices as this company is one of AMSFBD's primary suppliers. For the remainder of food prices, we went to *Save-On Foods*. We assume for the purpose of reaching a conclusion of feasibility, that these products (from *Sysco* and *Save-on Foods*) would be provided by the local distributors we identified (eg. *Hills Foods*). The only missing information is confirmation with these businesses to see if they can supply the required contract. Wine prices were obtained from a *BC Liquor Store*, and cheese prices were obtained from *Les Amies du Fromage* and *Ugo & Joe's Italian Supermarket*. We subtracted 30% from the retail prices as Nancy Toogood told our group that this would reflect wholesale prices.

When pricing recipes, we often needed to know the poundage (in kilograms) of various ingredients. We used the *United States Department of Agriculture National Nutrient Database* for Standard Reference to accomplish this task. This database was able to give us weights for all ingredients used in our recipes.

Detailed pricing information is included in the appendix. The following are the predicted prices:

Friday night reception

Total cost of cheese: $8,209.50
Total cost of wine: $2,786.04
Total cost per person: $14.91
Saving: $0.07/person

Saturday:

Breakfast:
Total Cost of Breakfast: $ 798.69
Total Cost of Breakfast/Person: $ 1.60

Snacks:
Total cost of snacks: $307.47
Total cost per person: $0.41

Lunch:
Total Cost of Lunch: $ 1537.34
Total Cost of Lunch/ Person: $ 2.05

Dinner (including dessert):
Total cost of dinner: $2,791.52
Total cost per person: $3.72

Beverages:
Total cost of beverages for the day: $3,345.38
Total cost per person: $4.46

Therefore:

Total cost of food for the day = $8,829.00
Total cost of food/beverages per person = $11.77
Saving: $3.23

Analysis of Findings

(1) Economic Feasibility

As our calculations indicate, it seems possible that AMSFBD could economically host a local food conference for interested parties. The following serious considerations remain.

Hills Food Limited, a local, organic supplier of meats did not provide us with product and price listings. Therefore, we used *Sysco* and *Save-On Foods* to determine prices for salmon and chicken. These companies are not local, organic suppliers of meat; therefore, the prices could be far under our predicted values. We feel that it is imperative to have local meats at a local food conference.

Hartman predicts that the price of local, organic products could be 2.5 times as expensive as usually purchased products from major suppliers (Hartmann, 2003). Thus, if the deli turkey meat, salmon, and chicken were 2.5 times as expensive, the total cost would be raised to approximately $10,511.14 and the total cost per person would be $14.01.

We feel that organizing a local food event is economically feasible for AMSFBD. Even if local meats were used, the total price per person would still be under $15.00. Finally, it remains to be confirmed that the local businesses we have identified can supply the required amounts. If this is not possible, the premise of the conference is to be seriously questioned. This is an important task for further groups to study.

Rather than provide an overly detailed list of the percentage of products we were able to obtain locally, we feel that it is more useful to think about our success incorporating local food products in broad terms. Whenever it was possible to obtain locally grown products, we did so. When it was not, as in the case of choosing an appropriate vegetarian option (tofu), we made sure to use local, sustainability-oriented distributors and producers, according to our definition. We estimate that only a few items (rice, tofu, spices, coffee) are not local.

(2) Feasibility of the UBC Farm Supplying Selected Items to the AMS Food and Beverage Department

The feasibility of the UBC Farm's meaningful participation as a supplier to the AMSFBS is a central question in our team's vision of the conference. There are a number of factors to consider when planning a partnership of this type, chiefly the financial and logistical feasibility.

Firstly, the financial feasibility must be premised on viable prices for both parties. The farm must be able to cover its costs and the AMSFBS must remain within its budget for the conference. This required the careful selection of a few select items from the Farm in the menu. This aspect is fully discussed in the menu planning section of this report.

Secondly, the logistical feasibility of the contract must be considered. For the UBC Farm, the most important aspects are realistic growing plans, selection of items that can be reliably supplied at high quality, a timely contract, and the ability to meet its responsibilities to other customers (Bomford, March 17, 2005). The AMSFBS requires a reliable, high quality product from the UBC Farm, to be delivered on time and in sufficient quantity for the conference.

The UBC Farm

The feasibility of supplying a conference of 750 delegates with produce from the UBC Farm must be limited to a few carefully selected items. The items our team selected were arrived at on the basis of the following factors: produce the farm is confident it can produce reliably at high quality, seasonal limitations, and growing plan limitations (area available for production). The items are:

1) Cool salad mix of baby greens (60lbs)
2) Table carrots (66lbs)
3) Assorted summer squash (150lbs)
4) Beets (20lbs)
5) Ground cherries (24 pints)

The Farm has successfully produced all of these items for a number of seasons and all are available in August. Further research may be required to determine the true financial viability to the Farm of some items. For example, although salad mix is by far the highest revenue earner, the true cost of producing it on the Farm has not been fully studied (Bomford, March 17, 2005). However, with the information available to us at present, we believe that these are the best choices.

A chief concern for the farm is the feasibility of producing sufficient quantity for the contract in their limited growing area. The Farm currently uses approximately 3 acres for its activities. Mark Bomford, the Coordinator of the UBC farm, estimates that an additional 3 acres of land could be brought into production. He adds, however, that any expansion would be a significant undertaking requiring increased resources for the Farm. Our team calculated the area needed to produce the items requested in the contract. We found reliable data for all item excluding ground cherries. We calculated that the total area required (excluding ground cherries) would be approximately 6098 square feet (30 standard beds)[2]. As a high estimate, we added 1362 (7 standard beds) square feet for ground cherries, for a total of approximately 7460 square feet (37 standard beds). The full details per crop, including method and calculations, are included in the appendix.

[2] UBC Farm uses a standard bed size of 4 feet by 50 feet (200 square feet). (Nekker, April 4, 2005)

The calculations for growing plans were done using data from the *USDA Nutrient Database* and Eliot Coleman's book *The New Organic Farmer*. We felt Eliot's careful use of growing plans based on plant and row spacing reflects the Farm's position as a small, mixed production, organic enterprise. It must be noted that these calculations are subject to variation depending on climate, the resources of the Farm, and many other variables.

We conclude that it would be feasible for the Farm to produce the amount required by the contract in the land they currently have under production. However, if the Farm also wishes to continue to provide for other customers during the time they plan to supply the conference, they may need to expand production in selected areas.

Upon examination of our findings regarding growing plans, we feel that our goal for Farm involvement may not have been ambitious enough. There is potential to increase the value and amount of the contract with the Farm. This would require a re-assessment of item choices, and a review of menu planning and pricing. However, we feel that our menu features important Farm products, and that the items we selected will be a positive contribution to the Farm's development.

A contract would have to be negotiated between the AMSFBS and the UBC Farm before April 2006. Mark Bomford has indicated he would prefer this date to be as early as February if possible. The Farm managers would then plan the field area and draw up a growing plan. They would also make a financial and hiring plan based on the contract.

The AMSFBS

The AMSFBS requires that the Farm commit to providing the agreed upon items in the contract, and that they be of high quality and delivered on time.

Potential Sponsors for Supplying the Conference

Nancy Toogood mentioned that additional sponsorship may be necessary to help offset any additional costs of hosting a local food event. We have included a list of potential sponsors for

AMSFBD. The following potential sponsors all attended the Faculty of Agricultural Sciences career fair in February 2005. We feel that they may be interested in supporting the food conference.

- *BC Dairy Foundation*
- *BC Food Protection Association*
- *BC Fruit Growers' Association*
- *BC Greenhouse Growers' Association*
- *BC Salmon Farmers Association*
- *Certified Organic Association of BC*
- *Nature's Path Foods*

We also drafted a Sponsorship Letter that could be used to gain support from local companies and organizations (Appendix B).

Limitations and Recommendations

Due to the complexity of the scenario we chose, we came across several limitations and have suggested recommendations to overcome these limitations.

(1) Size of the Group

The initial challenge we faced was the size of the group assigned to the same scenario. In total, there were three groups, or twenty-one people, working on the same assignment. Although this provided us with a vast amount of skills and knowledge, in the end, it ultimately was unproductive. Our first few meetings were inefficient, and as a result, we decided that the groups would work independently, but share information on distributors. To allow open communication, we had a discussion section set up on WebCT so that all people working on scenario 2c could communicate and we chose one person to communicate between groups. If this assignment is used again in the future, we recommend limiting the number of people assigned to the same task. Perhaps the initial idea of only having two groups working on scenario 2c was a good idea. We recommend the use of WebCT as a tool for communication between all people working on the assignment.

(2) Complexity of the Project

Secondly, we found the project itself to be rather challenging. At times, we felt that we did not have the skills and/or tools necessary to complete the task in a satisfactory manner. For example, developing growing plans was a difficult task. We found that our vision for the Farm's involvement

was perhaps not ambitious enough. We recommend that future groups go through a three-step process, where a model is created, evaluated and then reworked. Growing plans would need to be formulated, assessed and discussed with the Farm, and then expanded to include more products or greater volume.

Finding distributors, developing and pricing menus, developing growing plans for the UBC farm, and determining the feasibility of re-localization seemed unmanageable at times. We found it challenging to contact and get information from distributors. We felt that they often did not take us seriously because we are students and because this is a hypothetical conference. In addition, many distributors chose to keep their information confidential.

In order to ease the stress associated with doing this scenario, we recommend that information is provided on how to develop growing plans. Additionally, if the AMS is planning to hire someone to do this project, we suggest that they provide more information. For example, it would be useful if they had information on distributors readily available, perhaps a database of distributors, including their products and prices. If it is not possible for the AMS to directly provide information about distributors, it would be helpful if they provided a letter that could be sent to distributors. This would allow the distributors to see that there is a chance that the event could be held in the future. In addition, providing a sample menu would be useful. With these suggestions, and less people working on the scenario, the project would run more efficiently and effectively.

(3) Communication

Finally, communication was a limitation while working on the scenario. As previously mentioned, we found it difficult to contact and get information from distributors. We relied on email as our communication channel for this, which often resulted in waiting for responses. Another communication issue left us without a sample menu until a week before our assignment was due. This resulted in us having to re-create the menu, which took a significant amount of time and effort. Because of these issues, we felt a lot of pressure to have the assignment completed on time.

For future groups, it would be a good idea to create a timeline to outline when they will have certain tasks completed. We recommend that groups work to get distributor information as a first step. We found that we needed this information to plan the menus, and needed the menus to develop growing plans and to determine the feasibility of re-localization.

(4) Remaining Tasks, Future Needs

- Further investigate local distributors to increase options
- Acquire missing information about local food distributors, specifically for protein products such as salmon, chicken, etc. This information will fill vital gaps in the model for predicting cost and logistical feasibility. The question of "how local can the menu be?" can then be fully answered
- Refine the growing plans with the UBC Farm to maximize the benefit of the contract.

Conclusion

Our conclusion is that the CFSC conference projected to be held at UBC in the future supplied using local foods is a significant possibility, with several important qualifications. First, we must recognize that there are many items required to run a complete, high-end conference that cannot be local. Secondly, we used a layered process to envision and evaluate our concept of local food. We prioritized the UBC Farm, and then moved down a gradient of BC distributors, organic distributors, and national distributors. This is important because a major qualification we place on our conclusion is that certain products that we projected would be available and economically feasible based on estimates and substitute prices need to be further investigated and confirmed. We feel that it is imperative to have local BC meats and produce at a local food conference. If this is not possible, the premise of the conference is to be seriously questioned. Our team hopes that the model we have developed for the conference and the conclusions we have reached will be valuable for future efforts in planning a local food event. We expect that our successors will assess and rework our vision so as to build on this knowledge base.

Appendix A: Recipe Modification and Pricing

Predictions:

Friday night reception:

- 3 oz (~85 g) of cheese per person. So 450 kg of cheese is needed
- 2 bottles of 750 mL wine, one red and one white, for eight people. So about 94 bottles each of red and white wine

Saturday:

Breakfast:

- 500 servings waffles and blueberry sauce
- 500 servings granola, fruit, and yogurt

Snacks:

- 375 apple cinnamon muffins
- 375 carrot zucchini muffins
- 750 nectarines

Lunch:

- 375 eggplant and lemon aioli wraps
- 375 turkey roll-ups
- 375 servings salmon chowder
- 375 servings squash soup
- 750 servings potato salad
- 375 servings boiled beets
- 750 servings carrots

Dinner:

- 250 servings ginger tofu with mixed vegetables
- 250 servings salmon with lemon Dijon sauce
- 250 servings herbed chicken
- 375 servings beet risotto
- 375 servings garlic mashed potatoes
- 750 servings grilled tomatoes
- 750 servings cool salad mix
- 375 servings tangy orange dressing
- 375 servings oil and vinegar dressing
- 750 servings peach and apple crumble

Beverages:

- 900 cups milk
- 2,250 cups orange
- 1,500 cups tea
- 1,500 cups coffee
- 47 bottles red wine (1 bottle per table of 8)
- 47 bottles of white wine (1 bottle per table of 8)

Recipes:

Friday Night Reception

Cheese	Origin	Cost per kg	Cost for 75kg	Cost per person
Friulano	Canada	$11.99	$899.25	$1.20
Tomato Basil Havarti	Canada	$11.99	$899.25	$1.20
Milk Provolone	Canada	$13.99	$1,049.25	$1.40
Barri Mozza	Canada	$9.99	$749.25	$1.00
Gort's Gouda (aged)	BC	$32.50	$2,437.50	$3.25
Moonstruck pasteriuzed Cheese	BC	$29.00	$2,175.00	$2.90

Total Cost : $8,209.50

Cost per Person: $10.95

Wine Name	Origin	Type	Cost/ 0.75 L bottle	Cost/mL	Cost/ Person	Cost for 750 ppl
Peller Estates	Okanagan	White	$7.49	$1.00	$0.94	$704.06
Peller Estates	Okanagan	Red	$7.99	$1.07	$1.00	$751.06
Okanagan Vineyard	Okanagan	White	$7.79	$1.04	$0.97	$732.26
Okanagan Vineyard	Okanagan	Red	$8.39	$1.12	$1.05	$788.66

Total Cost: $2,786.04

Cost per Person: $3.96

(i) Breakfast

Granola, fruit, and yogurt

15 kg Granola	800 g/ $2.79*	$ 52.31
30 kg Vanilla Yogurt	4.5 kg/ $24.00 (DO)	$ 158.40
30 kg Strawberry Yogurt	4.5 kg/ $24.00 (DO)	$ 158.40
70 kg honeydew	18 kg/ $ 32.50 (DO)	$ 126.39
40 kg cantaloupe	16 kg/ $28.60 (DO)	$ 71.50

Total Cost: $ 567.00
Cost/Person: $ 1.13

Waffles with blueberry sauce

500 waffles	12 - 234 g / $2.65 (DO)	$ 110.42
12 kg blueberries	13 kg/ $93.50(DO)	$ 86.31
1.5 kg honey	250 g/$3.25 (DO)	$ 19.50
5 L orange juice (reconstituted)	1L/$2.71(DO)	$ 13.55
500 g cornstarch	454 g/ $1.74*	$ 1.91

Total Cost: $231.69 ***original recipe from Food Network Canada**
Cost/Person: $ 0.46

Total Cost of Breakfast: $ 798.69
Total Cost of Breakfast/Person: $ 1.60

(ii) Lunch

Grilled Eggplant with Lemon Aioli Wraps

75 kg eggplant	14 kg/ $53.50 (DO)	$ 286.61
750 mL Olive oil	500 mL/ $3.66 (DO)	$5.49
15 kg onion	1kg/$0.35 (LM)	$ 5.25
185 flour tortillas	10 tortillas/ $ 2.09*	$ 38.67
1.0 L mayonnaise	1L/ $ 2.44 *	$ 2.44
0.25 kg garlic	0.036kg/$4.65 (DO)	$ 32.29
750 mL lemon juice	1L/$7.02 (DO)	$ 5.26
6 kg/ 250 oz cream cheese	250 g/ $ 2.51*	$ 60.24

Total Cost: $ 436.25 ***original recipe from Food Network Canada**
Cost/Person: $ 1.16

Turkey Roll-Ups

6 kg/ 250 oz cream cheese	250 g/ $ 2.5*	$ 60.24
2.0 L mayonnaise	1L/ $ 2.44 *	$ 4.88
250 mL prepared mustard	250 mL/ $2.43(DO)	$2.43
185 flour tortillas	10 tortillas/ $ 2.09*	$ 38.67
250 g (0.5 lb) dried basil	5 lb/$14.50 (DO)	$1.45
10 kg deli smoked turkey	100 g/ $ 1.32*	$ 132.00
13 kg carrots	23 kg/ $14.00 (LM)	$ 7.91
5 kg onions	1kg/$0.35 (LM)	$ 1.75

Total Cost: $ 249.33 ***original recipe from Food Network Canada**
Cost/Person: $ 0.66

Potato Salad with Olive Oil and Lemon Juice Dressing

84 kg potato	23 kg/ $ 8.50 (LM)	$ 31.04
2.75 L lemon juice	473 mL/ $3.32 (DO)	$19.22
7 L olive oil	500 mL/ $3.66 (DO)	$ 51.24
750 g salt	1kg/$0.55 (DO)	$ 0.41
300 g black pepper	1kg/$11.00 (DO)	$ 3.30

Total Cost: $105.21 ***original recipe from Food Network Canada**
Cost/Person: $ 0.14

Salmon Chowder

4 kg onion	1kg/$0.35 (LM)	$ 1.40
5 kg carrots	1kg/$0.35 (LM)	$ 1.75
1 kg garlic	0.036kg/$4.65 (DO)	$ 129.17
25 L chicken broth	900 mL/ $ 1.67*	$ 46.39
10 kg potatoes	23 kg/ $ 8.50 (LM)	$ 3.69
15 g (0.05 lb) dried dill weed	5 lb/ $ 39.00 (DO)	$ 0.39
20 L 2% milk	4 L/ $ 2.32*	$ 11.60
10 kg salmon	100 g/ $ 1.60*	$ 160.00

Total Cost: $ 354.39 ***original recipe from Food Network Canada**
Cost/Person: $ 0.95

Squash Soup

68 kg squash	1 kg/ $1.10 (UBC Farm)	$ 75.00
3 L olive oil	500 mL/ $3.66 (DO)	$ 21.96
1.5 kg unsalted butter	454 g/ $ 2.79*	$ 9.22
6 kg onion	1kg/$0.35 (LM)	$ 2.10
0.5 kg garlic	0.036kg/$4.65 (DO)	$ 64.58
375 g (0.80 lb) curry powder	5 lb/ $13.00 (DO)	$ 2.08
90 L chicken broth	900 mL/ $ 1.67*	$167.00
375 g salt	1kg/$0.55 (DO)	$ 0.21
125 g (0.3 lb) black pepper	2.2 kg/ $ 25.00 (DO)	$ 1.50
15 L homogenized milk	4 L/ $ 2.43*	$ 9.11

Total Cost: $ 352.76 ***original recipe from Food Network Canada**
Cost/Person: $ 0.94

Fresh Farm Beets:
20 lbs x $0.5/lb (UBC Farm)
Total Cost: $10.00
Cost/Person: $0.03

Fresh Farm Carrots:
66 lbs x $1.00/lb (UBC Farm)
Total Cost: $66.00
Cost/Person: $0.09

Total Cost of Lunch: $ 1573.94
Total Cost of Lunch/ Person: $ 2.10

(iii) Snacks

Apple Cinnamon Muffins

5.9 kg flour	1kg/$1.53 (DO)	$9.03
1.1 kg dry milk	1kg/$6.44*	$7.08
3.1 kg sugar	1kg/$2.42 (DO)	$7.50
0.3 kg baking powder	1kg/$3.44 (DO)	$1.03
0.07 kg cinnamon	1kg/$5.88 (DO)	$0.41
0.3 kg salt	1kg/$0.55 (DO)	$0.17
31 eggs	18eggs/$2.52*	$4.34
1.8 kg butter	454g/$2.51*	$10.07
3.4 kg apples	1kg/$1.03 (DO)	$3.50
3.4 kg brown sugar	1kg/$1.17 (DO)	$39.78

Total cost: $82.91 ***original recipe from Nancy's Kitchen**
Cost per person: $0.22

Carrot Zucchini Muffins

3.9 kg flour	1kg/$1.53	$5.97
0.14 kg baking soda	1kg/$1.80	$0.25
0.05 kg cinnamon	1kg/$5.88 (DO)	$0.29
0.01 kg allspice	1kg/$18.04	$0.18
0.02 kg nutmeg	1kg/$25.52	$0.51
0.05 kg salt	1kg/$0.55 (DO)	$0.03
4.3 kg brown sugar	1kg/$1.17 (DO)	$5.03
47 eggs	18 eggs/$2.52*	$6.58
3.9 L 1% milk	4L/$2.18*	$2.13
3.9 L vegetable oil	1L/$10.67 (DO)	$4.61
0.03 L synthetic vanilla	125mL/$1.39	$0.33
2.6 kg zucchini	1kg/$0.73 (LM)	$1.90
2.6 kg carrot	1kg/$0.35 (LM)	$0.91

Total cost: $28.72 ***original recipe from Food Reference**
Cost per person: $0.08

Nectarines:
1 nectarine = 0.136kg therefore 102kg (USDA)
Prices:
1kg/$1.92; 102 x $1.92
Total cost: $195.84
Cost per person: $0.26

Total cost of snacks: $307.47
Total cost per person: $0.41

Dinner

Lemon Dijon Salmon

57 kg salmon fillets	0.925kg/$10.94*	$674.14
1.9 L canola oil	1L/$10.67 (DO)	$20.27
1.9 L lemon juice	1L/$7.02 (DO)	$13.34
0.4 kg green onion	1kg/$0.35 (LM)	$0.14
0.6 L Dijon mustard	$9.72/L (DO)	$5.83
0.035 kg salt	1kg/$0.55 (DO)	$0.02
0.012 kg pepper	1kg/$11.00 (DO)	$0.13

Total cost: $713.87 ***original recipe from Food Network Canada**
Cost per person: $2.86

Herbed Grilled Chicken

33 kg chicken	$4.14/kg (SYSCO)	$136.62
0.05 kg oregano	1kg/$10.56 (DO)	$0.53
0.15kg dried dill	1kg/$17.16 (DO)	$2.57
0.06kg dried parsley	Dried:1kg/$15.84 (DO)	$0.95
0.09 kg garlic	0.036kg/$4.65 (DO)	$11.63
1.9 L lemon juice	1L/$7.02 (DO)	$13.34
0.9 L canola oil	1L/$10.67 (DO)	$9.60
0.07 kg salt	1kg/$0.55 (DO)	$0.04
0.03 kg pepper	1kg/$11.00 (DO)	$0.33

Total cost: $175.61 ***original recipe from Food Network Canada**
Cost per person: $0.70

Ginger Tofu with Seasonal Vegetables

3.8 kg carrots (#2)	1kg/$0.35 (LM)	$1.33
7 kg purple beans	1kg/$1.29 (DO)	$9.03
9 kg green peppers (#2)	1kg/$1.14 (DO)	$10.26
16 kg Sunrise tofu	1kg/$2.40 (SYSCO)	$38.40
0.8 kg ginger	1kg/$7.04 (DO)	$5.63

1.8 L rice vinegar	1L/$8.00 (DO)	$14.40
1 L sesame oil	1L/$14.67 (DO)	$14.67
0.5 kg coarse salt	1kg/$0.55 (DO)	$0.28
0.03 kg crushed black pepper	1kg/$11.00 (DO)	$0.33

Total cost: $94.33 ***original recipe from Food Network Canada**
Cost per person: $0.38

Beet Risotto with Rapini

1.4 L canola oil	1L/$10.67 (DO)	$14.94
10 kg onion	1kg/$0.35 (LM)	$3.50
0.6 kg garlic	0.036kg/$4.65 (DO)	$77.50
28 kg Italian rice	750g/$1.78*	$66.45
31 kg beet	1kg/$0.92 (LM)	$28.52
94 L vegetable stock (organic)	$3.00/L*	$282.00
3 kg parmesan	1kg/$15.37*	$46.12

Total cost: $519.03 ***original recipe from Food Network Canada**
Cost per person: $1.38

Garlic Mashed Potatoes

60 kg potato	23 kg/ $ 8.50 (LM)	$22.17
5.6 L cream (½ and ½)	1L/$1.39*	$7.78
2.7 kg butter	454g/$2.51*	$14.93
0.4 kg salt	1kg/$0.55 (DO)	$0.22
0.07 kg pepper	1kg/$11.00 (DO)	$0.77
0.6 kg garlic	0.036kg/$4.65 (DO)	$77.50

Total cost: $123.37 ***original recipe from Food Network Canada**
Cost per person: $0.33

Olive Oil and Lemon Dressing

5.6 L lemon juice	1L/$7.02 (DO)	$39.31
2.8 L olive oil	1L/$11.56 (DO)	$32.37
0.5 kg garlic	0.036kg/$4.65 (DO)	$64.58
0.4 kg salt	1kg/$0.55 (DO)	$0.22
0.07 kg crushed black pepper	1kg/$11.00 (DO)	$0.77

Total cost: $137.25 ***original recipe from Food Network Canada**
Cost per person: $0.37

Tangy Orange Dressing

5.6 L orange juice (reconstituted)	1L/$2.71 (DO)	$15.18
0.5 kg garlic	0.036kg/$4.65 (DO)	$64.58
1 kg ginger	1kg/$7.04 (DO)	$7.04
0.15 kg black pepper	1kg/$11.00 (DO)	$1.65
0.1 kg salt	1kg/$0.55 (DO)	$0.06

Total cost: $88.51 ***original recipe from Food Network Canada**
Cost per person: $0.24

Delicious Grilled Tomatoes

23 kg tomato (#1)	1kg/$1.27 (DO)	$29.21
2.8 L olive oil	1L/$11.56 (DO)	$32.37
1.9 L balsamic vinegar	500mL/$3.49*	$13.26
0.4 kg garlic	0.036kg/$4.65 (DO)	$51.67
0.25 L Worcestershire sauce	280mL/$2.37*	$2.12
0.07 kg salt	1kg/$0.55 (DO)	$0.04
0.02 kg pepper	1kg/$11.00 (DO)	$0.22

Total cost: $128.89 ***original recipe from Food Network Canada**
Cost per person: $0.17

Apple Peach Crisp

54 kg peaches (#2)	1kg/$1.17 (DO)	$63.18
100 kg Earligold apples	1kg/$1.03 (DO)	$103.00

43 kg brown sugar	1kg/$1.17 (DO)	$50.31
1.5 kg cornstarch	0.454kg/$1.74	$5.75
15 kg oats, quick rolled	1kg/$1.99 (DO)	$29.85
20 kg butter	0.454kg/$2.51*	$110.57

Total cost: $362.66 ***original recipe from Food Network Canada**
Cost per person: $0.48

Mixed Salad Greens
60lbs x $7.00/lb (UBC Farm)
Total cost: $420.00
Cost/prson: $0.56

Ground cherries
24 pints x 3.20/pint (adjusted from $4 with 20% wholesale discount) (UBC Farm)
Total cost: $77.00
Cost pr person: $0.10

Total cost of dinner: $2,791.52
Total cost per person: $3.82

* = price from Save-On-Foods, minus 30%
DO: Discovery Organics
LM: Lower Mainland Vegetable Distributors

Beverages:

Milk Price:
4L/$2.18* therefore 1L (4 cups) = $0.55 therefore 1 cup = $0.14
Total cost: 900 cups x $0.14 = $126.00
Juice Price:
1L (4 cups) orange juice from concentrate/$2.71 (DO) therefore 1 cup = $0.68
Total cost: 2250 cups x $0.68 = $1,530

Tea:
Approximation: 1 tea bag = 2 cups
1 tea bag weighs 2g; therefore 1 g = 1 cup
1g x 1500 = 1,500g or 1.5kg

Price:
1kg/$55.60 (DO)
Total cost: 1.5kg x $55.60 = $83.40

Coffee:
Approximation:~1 tbsp per cup coffee
1 tbsp coffee = 2.7g
2.7 x 1500 = 4,500g or 4.5kg

Price:
1kg/$19.80 (DO)
Total cost: 4.5kg x $19.80 = $89.10

Wine Prices:
Okanagan Vineyard White = $7.79 (BC Liquor Store)
Okanagan Vineyard Red = $8.39 (BC Liquor Store)
$7.79 + $8.39 = $16.18 per table
$16.18/8 people = $2.02 per person
$2.02 x 750 = $1,516.88

Total cost of beverages for the day: $3,345.38
Total cost per person: $4.46

Total cost of food for the day = $8,829.00
Total cost of food per person per day = $11.77
The budget was $15.00 per person per day
Therefore, we are under budget by $3.23
* = price from Save-On-Foods, minus 30%
DO: Discovery Organics

Appendix B: Sponsorship Letter

Healthy Farm Healthy Students
With a Local West Coast Flavour

March 16, 2005

Dear (insert name here),

AMS Catering at the University of British Columbia is interested in hosting a local food event on campus. We are a group of students from the Faculty of Agricultural Sciences who have been assigned to investigate whether this is feasible. We are establishing partnerships with local distributors to supply BC grown produce for our conference, but we also need support from organizations, such as yourselves, who support the concept of local food systems. We are hoping that your business might be interested in sponsoring our endeavour to enhance the partnership between local businesses and high quality local food providers.

AMS is interested in hosting this event in August. At this time, no event has been scheduled, but the plans we are creating will serve as a template for future endeavours and potentially assist the AMS in expanding its catering menu. In exchange for your sponsorship, your organization will benefit from the hundreds of people who will be exposed to the advertising we will provide. This conference is estimated to attract approximately 600-800 people, and, once established, more local food events may be scheduled regularly. The publicity from sponsoring this important, ecologically-sound concept of

local food systems could positively enhance your community image and business. We hope that your organization is interested in participation, and we would be happy to discuss with you the type of sponsorship you can provide.

Sincerely,

(whoever that sends this letter out)
Include contact information

Appendix C: Calculations for Logistical Feasibility of the UBC Farm Supplying Selected Items to the AMS Food and Beverage Department

Method

Data for the calculation of growing plans was based on Eliot Coleman's *The New Organic Farmer*: *A Master's Manuel of Tools and Techniques for the Home and Market Garden* and the USDA Nutrient Database. The following is a sample calculation to illustrate the method used:

- 150lbs summer squash
- 1 medium summer squash: 196g (USDA)
- 150lbs squash= approx. 347 Squash
- Yield per squash plant (average of available summer varieties): 3-5 (Coleman 1995)
- Assuming low yield of 3 squash per plant: 116 plants needed to produce 150lbs
- Area needed per plant: 720 square inches (24" between plants, 30" rows) (Coleman 1995)
- (116 plants)x(720sq. in.)= 83520 sq. in.= **566 sq. feet**

Results by Item

- Beets: 39 sq. feet (0.2 standard beds)
- Carrots: 44 sq. feet (0.2 standard beds)
- Squash: 566 sq. feet (3 standard beds)

- Salad Mix: 5445 sq. feet (27 standard beds) (personal communication with Mark Bomford, Mar. 17)
- Ground Cherries: no data available: estimate 1362 sq. feet as maximum (7 standard beds)
- **Total: 7460 sq. feet (37 standard beds)**

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