

***Walking the Path Towards a Just, Sustainable and Food
Secure UBC Food System: 2005 UBC Food System Project
(UBCFSP) Report***

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The UBC Food Systems Project is a collaborative Community Based Action Research Project initiated jointly between the Faculty of Land and Food Systems and Social Ecological Economic Development Studies (SEEDS) program of the UBC Campus Sustainability Office (CSO). Key project partners include: Faculty of Land and Food Systems (students and teaching team of AGSC 450 class), UBC Food Services, UBC Alma Mater Society Food and Beverage Department, UBC Waste Management, UBC Sage Bistro, UBC Farm, SEEDS and the CSO, and project collaborators include UBC Campus and Community Planning and the Sauder School of Business.

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The author of this report, Liska Richer, is a PhD. student in the Faculty of Land and Food Systems and a veteran Teaching Assistant in AGSC 450. She was hired by the Campus Sustainability Office to work with the above UBCFSP members, namely to (1) Synthesize the findings of 2005 AGSC 450 students, (2) Organize a workshop with UBCFSP members and other key partners to share findings from student's projects and to gather reflections and suggestions for the next iteration of AGSC 450 in 2006, and (3) Work with UBCFSP members to plan and ideally implement food system related initiatives.

EXECUTIVE SUMMARY

General Overview

The UBC Food System Project (UBCFSP) is a collaborative, community-based action research project involving multiple partners and collaborators: UBC Food Services (UBCFS), AMS Food and Beverage Department (AMSFBD), UBC Waste Management (UBCWM), UBC Farm, UBC Sage Bistro, UBC Campus and Community Planning (CCP), Sauder School of Business class, UBC Campus Sustainability Office (CSO), Social, Economic, Ecological Development Studies (SEEDS), and the Faculty of Land and Food Systems (formerly named Faculty of Agricultural Sciences) students and teaching team. It has a minimum five year plan.

The UBCFSP is part of an Agricultural Science 450 Land, Food and Community III course, a mandatory capstone course required for all 4th year Faculty of Land and Food System students. The Project commenced four years ago and has involved five generations of AGSC 450 students, 572 (77 AGSC 450 groups and 3 Sauder School of Business groups) in total.

The main goals of the UBCFSP are the following:

1. To conduct a UBC food system assessment.
2. Identify barriers that encroach on the ability to make transitions towards UBC food system sustainability.
3. Create a shared vision among partners and collaborators.
4. Create a shared model among partners and collaborators.
5. Develop opportunities and recommendations to UBCFSP partners and collaborators.
6. Implement measures to make transitions towards UBC food system sustainability.

So far, key accomplishments of the project have included:

- Building a collaborative process.
- Improving our understanding of specific aspects of UBC food system sustainability.
- Demonstration of students' ability to propose and undertake food sustainability related initiatives or activities.
- Demonstration of students' ability to propose and/or design recommendations to integrate food system sustainability initiatives into curriculums in diverse UBC course offerings.
- Efforts to determine the desirability of UBC population's willingness to support local food, including willingness to pay more for local foods.
- Analysis of current food procurement practices of UBC food providers and potential (opportunities and challenges) for increasing procurement of local foods.
- Consensus building on the nature of the problem.
- Consensus building on the vision of where we want to go.
- Consensus building on the model of transition to sustainability of how we should get there.
- Consensus building on specific strategies to address obstacles.
- Consensus building on specific strategies to facilitate transitions towards a sustainable food system.

This Year at a Glance

2005 marked the fourth year of the UBCFSP. Based upon the findings of Years one, two, and three, students in the spring 2005 term were expected to work on one of five scenarios (including 2 sub-scenarios). Based upon their assigned scenario, students were asked to: (1) Provide reflections on our Vision Statement which outlines principles that should guide our transition towards a sustainable UBC food system; (2) Provide reflections and expand if necessary the problem statement assigned to them in the description of their

scenario; (3) Further develop and refine proposed research designs, campaigns, and action plans from 2004; (4) To either engage in actual data collection and/or develop detailed action plans for implementation in 2006, and (5) To provide recommendations for the next steps to appropriate partners and collaborators.

This paper is a summary of the work of 111 students, working in 16 groups, on one of five scenarios (including 2 sub-scenarios). The purpose of this paper is to integrate and summarize their findings and recommendations, prepare the groundwork for Year five, and facilitate initiatives among the UBCFSP partners and collaborators.

Key Findings

Vision Statement:

Overall, the majority of groups felt that the “2002-2004 Partner Consensus Version” of the Vision statement resonated well with their own vision of a sustainable UBC food system. However, a number of suggestions were made to improve the vision statement. The majority of group reflections consisted of suggestions to improve the clarity of specific guiding principles, such as by condensing or combining principles. A number of groups had experienced difficulty distinguishing between general principles from the detailed plans needed for its implementation, evident in group reflections that the vision statement is too “lofty”, “idealistic” or “utopian”. Specific suggestions that groups indicated about the content of the vision statement consisted of such issues as: defining “local” within the vision statement (Group 11); emphasizing the need for educational tools to foster awareness and understanding of the food system throughout the campus community (Group 12); defining how local, organic and fair trade food products should be prioritized, and emphasizing that “while there is a need to foster strong local food systems, these must be embedded within a *global* food system to fully meet humanity’s needs” (Group 11).

Definition of “Local” Foods:

9 out of 16 groups were asked to define what “local” food means to them in their group reports in an effort to establish clarity, and eventually consensus over the meaning of the term for the Project. Out of these 9 groups, 8 groups defined local as foods produced in BC (Groups 1, 6, 7, 8, 9, 11, 15, and 16). 2 of these groups also added that if foods could not be obtained in BC, then foods should be obtained from the next closest Canadian region, dubbing this either as semi-local (Group 15) or as local (Groups 1, 11). 1 group felt that too many factors are involved to come up with a single definition of local, and alternatively proposed that “foods relative locality be determined on a case by case basis, using indicators of sustainability” which “is inclusive of social, environmental and economic factors...such as food miles and methods of production, and not only encompass political borders” (Group 13).

Specific Findings: 2005 Spring Groups:

Scenario #1: Desirability of Re-localization (Group 8)

- One group conducted a pilot study to test a draft questionnaire to determine whether or not and to what extent UBC’s population is willing to buy local food, and whether or not UBC’s population is willing to pay more for local food, if deemed needed by food providers on a small sample of the perspective target population. The purpose of conducting the pilot study was to gather pilot’s feedback on the content of the questionnaire, the effectiveness of questionnaire design, and process of administration, which will inform preparation for developing an advanced methodology to launch a tested effective questionnaire with a representative sample in 2006.
- A draft questionnaire was developed by Group 8 based upon discussions within their own group and on previous year’s proposed questionnaires by the Sauder School of Business fall 2004 Group, and former

AGSC 450 groups. Before launching their questionnaire to their sample, Group 8 distributed their draft questionnaire to the entire AGSC 450 class, consisting of 111 students for suggestions. Upon questionnaire return, the feedback was then analyzed and incorporated into a final questionnaire consisting of twelve questions to be distributed to their sample. See **Appendix B** for Group 8's questionnaire

- Two methods of administration were used in the pilot:
 1. An electronic questionnaire was posted by Group 8 on the AGSC 450 course WebCT site for AGSC 450 students to respond.
 2. Paper questionnaires were distributed face-to-face in the field to potential customers around the following campus food outlets: 99 Chairs, The Barn, Totem Park Cafeteria, the SUB, the UBC Hospital Cafeteria, , The University Village and outside the Buchanan complex. Questionnaires were administered by group members using quota sampling techniques, describe in their “Sampling Methods” section.
- **Response Rate:** In the field survey a total of 49 individuals responded at food outlets across the campus. In the class survey, a total of 60 AGSC 450 students responded through WebCT. Thus, a total of 109 respondents participated.

Summary of Central Findings

Category	Results from both field and class questionnaires	Results from field questionnaires (if available and/or notable)
Demographics	○ Out of the 109 respondents, 89 were undergraduate students, 70 were female and 91 were between the ages of 19 to 30. 9 lived on campus with residences that provided food outlet services.	N/A
Food purchasing on campus	○ Out of the 109 participants, the majority (59) indicated that they purchase food on campus between 1 to 3 times per week.	N/A
Definition of local foods	○ Out of 109 participants, 46 believed that locally produced foods should be defined as “food produced in BC”. The majority of the class respondents indicated this to be the case, and no one left the question blank.	○ 18 out of 49 left the question blank or provided unrelated answers and 15 defined local as “food produced in BC”.
Perceived benefits of local foods	○ “Indicated that the most commonly stated benefits of eating locally produced food included growing fresher and cheaper food and supporting local economic growth”.	○ 13 out of 49 respondents left this question blank.
Perceived drawbacks of local foods	○ The most frequently cited drawbacks in eating locally produced food are that it is more expensive than imported food (28) and that there is less food choice because of the seasonal limitations of eating local (18).	○ 13 out of 49 respondents left this question blank.
Perceived importance of geographic of political boundaries of food origin	○ 67 out of 109 found that the “country in which the food is produced” is more important than the “distance that food has traveled” and 41 found the opposite to be true.	○ More than 2/3rds of the class respondents indicated that the “distance that food has traveled” is more important, and about 1/2 of the field respondents indicated the same.
Purchasing behavior for foods that are labeled local versus labeled	○ 86 out of 109 felt that knowing that a food item was produced locally would encourage them to purchase it if it was the same price as an identical item outside of the province.	○ 14 out of 49 participants responded “neutral”.

non-local items		
Desire to see BC foods offered in UBC food outlets	<ul style="list-style-type: none"> ○ 88 out of 109 respondents indicated that they would like to “see seasonal BC food items at UBC food outlets”. 	<ul style="list-style-type: none"> ○ 18 out of 49 participants responded “neutral”.
Willingness to pay more for local foods	<ul style="list-style-type: none"> ○ Out of 109 responses, 43 participants would be willing to pay between 1-5% more for locally produced foods if necessary. 	<ul style="list-style-type: none"> ○ 20 respondents out of 49 indicated that they would <i>not</i> be willing to pay more, and 29 indicated they would be able and/or are willing to pay more for locally produced foods if necessary.
Top factors influencing food purchasing choices	<ul style="list-style-type: none"> ○ Out of 109 responses 89 chose “price”, 78 chose “quality”, and 59 chose “convenience” as criteria which influences their food purchasing choices the most. 	N/A
Willingness to consume local foods at the cost of eating less imported foods	<ul style="list-style-type: none"> ○ 44 out of 109 participants indicated that they would be willing to eat more locally produced foods at the cost of eating fewer imported foods. 36 out of 49 participants responded “neutral”. 	<ul style="list-style-type: none"> ○ In the field questionnaire, 18 out of 49 participants indicated that they would be willing to eat more locally produced foods at the cost of eating fewer imported foods, and 17 out of 49 responded as “neutral” (Group 8).

Summary of Proposed Methodology for 2006

Target Population	- Should include “all UBC food outlet customers, with the focus on the three major food providers that are involved in the UBCFSP, AMS Food and Beverage Department, UBC Food Service controlled food outlets, as well as those in the University Village” (Group 8).
Sampling Method	- A stratified random sampling method should be used that is proportional to the different market segments should be used since it allows for analysis of specific trends within each stratum.
Sample Size	- Should be approximately 400 respondents.
Instruments of Data Collection	- The questionnaire used in the pilot study in Appendix B should serve as the main instrument of data collection, with suggested revisions made prior to distribution.
Methods of administration:	<p>3 methods of administration were proposed to either be used separately or in conjunction with one another:</p> <ol style="list-style-type: none"> (1) The questionnaire could be used as an interview guide for oral interviewing in 15-person focus groups. Focus groups could consist of random members of the target population and be facilitated by one interviewer. “Assuming a sample size of around 400, 27 of these focus groups would need to be held”, facilitated by at least 27 AGSC 450 students. (2) The questionnaire could be distributed by UBC food outlet staff to randomly selected customers. (3) The questionnaire could be distributed electronically via the web, such as through student services.
Incentives:	- To encourage participants to participate in any of the above noted methods of administration, incentives could be provided to participants such as: gift certificates to the bookstore or food outlets.
Follow Up	- Since the pilot study’s results indicated that awareness about sustainability and local foods

	among respondents was low, upon questionnaire completion an information pamphlet about local food and sustainability should be distributed to participants “to increase their knowledge about local foods, sustainability and the importance of eating locally” (Group 8).
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Scenario #2: Feasibility of Re-localization

Scenario 2a): Feasibility of Re-localization on Campus (Group 6)

- 100% of egg products purchased by UBCFS are locally produced in BC.
- AMSFBD purchases 100% of shelled eggs from a BC source.
- AMSFBD purchases 100% of liquid egg products from a Quebec based company.
- UBCFS purchases approximately 100% of poultry products from BC sources.
- AMSFBD purchases 100% of poultry products from BC and Canadian sources (Quebec, Ontario and Alberta).
- Both AMSFBD and UBCFS purchase bread from 100% local BC bakeries.
- 100% of chicken and egg products UBC food providers’ purchases are conventionally raised.
- “For \$0.62 more per Kg of whole chicken, UBCFS would be able to purchase free run *whole* chicken from Kidd Bros”.
- UBCFS distributor purchases “90% of beef products...from Alberta, and the rest is from New Zealand and Uruguay”.
- AMSFBD distributor “mainly purchases beef products from Alberta-based meat processors (XL Foods Ltd and Cargill Foods)” (Group 6).

Scenario 2b): Feasibility of Increasing Farm Provision of Specialty Items to UBC (Group 4)

- Coordinated the development of a list of items that Sage is interested in purchasing from the UBC Farm, and the feasibility of the UBC Farm to supply these items to Sage (see **Appendix C**) with representatives from Sage Bistro and the UBC Farm (Group 4).
- Upon communication with representatives from Sage Bistro, found that they would like the Farm to develop their production in the form of a niche market of specialty items for Sage and restaurants alike in the area, guided by principles of “sell before you sow” (Group 4).
- Also it was found that they would “like to see the farm diversify its production by growing herbs and perhaps edible flowers” (Group 4).

Scenario 2c): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm (Groups 11, 15, 16)

- Working with Nancy Toogood (AMSFBD), UBC Farm staff and local food brokers and suppliers, 3 groups determined the catering requirements for 600-800 people in the eventuality that a conference is held at UBC requesting local foods. Each group designed menus, estimate food quantity requirements, established growing plans if necessary, and developed associated budgets.

Group 11:

- Designed menus, and catering requirements for a Friday night reception, and for a Saturday: breakfast, snack, lunch, and dinner. The following distributors were selected to serve as the main food providers for the conference: UBC Farm, Discovery Organics and the Lower Mainland Vegetable Distributors.
- The following conference theme: “Land, Food, and Community – Eat BC”, and menu theme: “Healthy Farm, Healthy Students with some Local West Coast Flare” was proposed.
- The majority of recipes were selected from the Food Network Canada website. Recipes were selected based upon the following criteria: contained local and healthy items, gourmet-type recipes, farm specific

recipes, ability to “enhance the freshness and flavour of local foods”, and had a choice of vegetarian options.

- The following UBC Farm products were selected as recipe ingredients: salad mix, beets, carrots, ground cherries and squash. Associated growing plans and quantity requirements were determined (Group 11).

Group 15:

- Designed menus and catering requirements for a Saturday breakfast, lunch, dinner and snacks. The following distributors were selected to serve as the main food providers for the conference: Discovery Organics, Hills Food, Sysco Vancouver, and the UBC Farm.
- The following conference theme: “Fresh is Best” was proposed.
- Recipes were selected for “functionality in regards to its locally supplied ingredients, the preparation time, cost, and the nutritional quality”.
- The following UBC Farm products were selected to serve as recipe ingredients: carrots, garlic and onions. Associated growing plans and quantity requirements were determined (Group 15).

Group 16:

- Designed menus and catering requirements for a Saturday breakfast, snack, lunch and dinner. The following distributors were selected to serve as the main food providers for the conference: UBC Farm, Discovery Organics, Lower Mainland Vegetable Distributors, Sysco Vancouver and a large miscellaneous national supplier¹ .
- The following menu theme: “summer lifestyle of the west coast” was proposed.
- Recipes were selected using the following criteria: contained locally grown food, reflected the “summer lifestyle of the west coast”, and contained alternatives to red meat, such as Native west coast salmon.
- The following UBC Farm products were selected to serve as recipe ingredients: squash, carrots, beets, ground cherry and salad greens. While associated quantity requirements were determined, no growing plans were provided. However, a contract was provided to “be secured by AMS Catering with the UBC Farm before the growing season begins to assure a set amount of food for the conference, including items, quantities, growing plans and staffing requirements” (Group 16).

Scenario #3: Education, Awareness and Re-localization (Groups 1, 7, 9, 13)

- 4 groups developed educational campaigns, including a set of educational pieces that would enhance the feasibility of re-localizing UBC’s food system by increasing awareness about the benefits of local foods. Each group provided the detailed steps required for its implementation, such as where, when, with whom, how, and associated costs for the campaign.

Group 1’s Proposed Educational Campaign

Target Population	<ul style="list-style-type: none"> ● Includes “all individuals who purchase foods on campus including students, faculty and staff, with a special focus on first year students ...[since] they will be at UBC for the longest period of time”
Campaign Goals	<ul style="list-style-type: none"> ● To “generate awareness of the importance of locally produced foods and ensure the sustainability of the UBC food system”.
What	<ul style="list-style-type: none"> ● A banquet was developed called the UBC “Sustainability Banquet”, which was designed to raise awareness about the benefits of local foods through providing “consumers with taste exposure to meals made with local foods” in the UBC SUB Ballroom. ● Tools to promote awareness of local foods sold on campus were developed to be distributed during the first of classes in September through the AMS Welcome Back BBQ, the Firstweek initiative sponsored by the UBC Alma Mater Society (AMS), and in Imagine UBC. ● Promotional tools include: posters, slogan (“Eat Thoughtfully, Think Locally”), magnets,

¹ Please note that this group neglected to indicate the actual name of this supplier.

	stickers, banners and T-shirts, and a proposed UBCFSP website (See Appendix E).
By/With Whom	<ul style="list-style-type: none"> The campaign will require future AGSC 450 students work with “AGSC 100 students as volunteers”, and “with the Alma Mater Society, UBC Food Services, and AMS Food and Beverage Department”. The “Sustainability Banquet” can be promoted via UBC’s radio station CITR.
When	<p>September 2006² (first week of classes): Campaign materials can be distributed through: (1) The AMS Welcome Back BBQ; (2) IMAGINE UBC, a student orientation program, and (3) a Firstweek initiative sponsored by the UBC AMS.</p> <p>September 22 and 24, 2006: Sustainability banquet³ will take place during Group 7’s “Food Week” festivities (described in Group 7’s “Proposed educational Campaign”).</p>

Group 7’s Proposed Educational Campaign

Target Population	<ul style="list-style-type: none"> Includes “all consumers of food and beverages at UBC”.
Campaign Goal	<ul style="list-style-type: none"> To send clear, concise, and positive messages that emphasize the benefits of local food”, incorporating “the benefits of purchasing and consuming local foods in terms of social, economical and ecological aspects”. These messages will be delivered using “aesthetically pleasing visuals relevant to our target audience with a general slogan “Buy Fresh, Buy Local”.
What	<ul style="list-style-type: none"> An awareness-building event was developed called “Food Week”, which will include food related events to be held in the Student Union Building (SUB) concourse. Events include raffle draws, a “<i>Cooking with John Bishop</i>” event, and special appearances by “representatives of the UBC Farm, Sage Bistro, and Sprouts”. Promotional tools were developed to be distributed during “Food Week”, IMAGINE UBC and the Firstweek initiative sponsored by the UBC AMS. Promotional tools include: posters, logo and slogan (“UBC Grown”), pamphlets, sticker labels and banners (See Appendix E).
By/With Whom	<ul style="list-style-type: none"> Preparations for “Food Week” should be made by the 2006 AGSC 450 class. “Food Week” could be promoted on the Beat radio station (94.5FM). Pamphlets can be distributed throughout “Food Week”, “inside the Tupperware containers from the UBC residents association to UBC campus residence students”; incorporated into Frosh Kits by IMAGINE UBC student leaders, and be presented to the AGSC 100 class of September 2006. Sticker labels (see Appendix E) can be placed on UBC Farm products sold at the Farm, and on products and menus at campus food provider outlets.
When	<p>September 2006 (first week of classes): Campaign materials can be distributed through: (1) IMAGINE UBC and (2) the AMS sponsored Firstweek initiative.</p> <p>September 22 and 24, 2006: “Food Week” festivities will take place.</p>

Group 9’s Proposed Educational Campaign

Target Population	<ul style="list-style-type: none"> Includes “all workers employed by UBCFS, including management and purchasing personnel, supervisors, kitchen staff, and front-line workers”.
Campaign Goal	<ul style="list-style-type: none"> To enhance awareness among UBC food workers on the benefits of buying and producing local foods on campus, selling local foods on campus menus, and how re-localization can

² Note: Group 1 indicated in their paper that the campaign should occur during September 2005, based upon the assumption that a 2005 summer AGSC 450 class will be held. Since, no summer class was held this year; I have adjusted the timeline and planning for activities to September 2006.

³ Note: This group left out significant details in their paper required to plan and implement the “sustainability banquet”, such as who the participants will constitute, what and where food items will come from, etc.

	enhance the economic, ecological and social sustainability of the food system.
What	<ul style="list-style-type: none"> • A local awareness building event was developed called the “UBC Local Food Cook-off” Competition, where participating UBCFS food worker teams design a locally made featured menu item that will be in competition with one another over the course of one week. Throughout the competition, appointed judges will make their way around to the various venues and sample each team’s local dish. “UBCFS workers will each be given five “50% off local meal coupons” for each of the five competing venues... to allow them to sample some of the local food creations for a reduced price”. Judges will evaluate the menu items based upon the following criteria: “sustainability, nutrition, taste, price and consumer responses” and the advertising used to promote the local menu item. Prizes will be awarded for first and second place. • Promotional tools were also developed to raise awareness about the benefits of local food and to promote the event including the following: posters, logos, pamphlets, buttons and aprons (See Appendix E).
By/With Whom	<ul style="list-style-type: none"> • UBC Local Food Cook-off “will be conducted concurrently at the five main cooking facilities operated by UBCFS—Place Vanier Residence, Totem Park Residence, Sage Bistro, 99 Chairs and Pacific Spirit Place in the Student Union Building”. One cooking team for each venue should be formed consisting of 4 people. • Proposed judges include: AGSC 450 Course Instructor, Vancouver Sun Food Critic, UBCFS Personal Wellness Program Dietician, Food Economics Professor, and UBCFS Director. • An information booth should be set up to make educational tools available. Booths “will rotate daily between the five food outlets, throughout the week-long competition. This booth will have a volunteer representative of the AGSC 450 class who will be able to provide information about the local food system as well as the UBC Local Food Cook-off. In addition, a worker from the UBC farm will assist in managing the booth and represent local food growers”. • Among the participating UBCFS outlets, each worker should receive a pamphlet which will “serve as useful references to supply the workers with an information base which can be readily conveyed to the customer during the local food competition, as well as in the future”.
When	March – April 2006 (5 weeks duration)

Group 13’s Proposed Educational Campaign

Target Population	<ul style="list-style-type: none"> • Includes all “staff members of the AMS Food and Beverage Department”. • The indirect target for the campaign “is the UBC community members who purchase food in the Student Union Building (SUB)”.
Campaign Goal	• To “increase interest in the sustainable food movement; especially among food workers in the hope of encouraging them to participate and take a personal stand to spread awareness”.
What	• A variety of promotional tools were developed to raise awareness about local food and sustainable food systems, which included the following: campaign logo and slogan (“Think Sustainable, Buy Local”), pamphlet, and resource binder.
By/With Whom	<ul style="list-style-type: none"> • Pamphlets should “be distributed out to all AMSFBD employees, although the pamphlets will be available to the customers as well and will be displayed at the cash register”. • Resource binders should “be placed at a convenient location at each AMSFBD outlet, and the sustainability ambassador will guide staff as to how to use the binder”. • The “AGSC 450 2006 students will be responsible for preparing, assembling, and delivering the resource binders based on our group’s sample prototype”. • “Each AMSFBD establishment is encouraged to add their own special features” to the binder.
When	February to April 2006 (7 weeks)

Scenario #4: Exploring Existing Opportunities that Enhance and/or Barriers that Impinge on the Sustainability of the UBC Food System within Current Campus Community Plans (Groups 3, 5, 12, 14)

- 4 groups explored whether or not the current form of urban development being implemented and/or proposed in campus plans (Comprehensive Community Plan (CCP), Official Community Plan (OCP), South Campus Neighbourhood Plan (SCNP), and/or Main Campus Plan (MCP)) is enhancing or hindering the transition towards the sustainability of the UBC food system.

Analysis of Official Community Plan (OCP)

- The OCP “fails to adequately define ecological sustainability”, “does not address the importance of ecological functions”, and “neglects to address food security, a key component of a sustainable community” (Group 12).
- The planning process could be enhanced by clear definitions of “food security”, “greenways”, “complete communities”, and a sustainable food system (OCP) (see [Appendix F](#) for proposed amendments to the OCP sections)(Group 12).

Analysis of Comprehensive Community Plan (CCP)

- The “eight Principles for Physical Planning, which are the standards against which to measure development on campus, do not make sufficient mention of either sustainability or food security on campus” (Group 12).
- Within the “Livable Region Strategic Plan” “there is no mention of incorporating a sustainable food system” (Group 5).
- It is “imperative that the type of commercial food outlet be well defined in the appropriate section to ensure locally owned, environmentally and socially responsible food outlets (see [Appendix F](#) for proposed amendments to the CCP sections) (Group 12).
- While “several initiatives for reducing UBC’s dependence on the GVRD for water supply were mentioned, this plan addresses the *quantity* but not the *quality* of water outflow. The water flowing out of the University Endowment Lands is not only contaminated with the hydrocarbons associated with heavy car traffic, but also the many chemical pesticides used on property landscaping, that contaminate the water outflow. A plan for reducing chemical landscaping should be considered” (Group 12).
- Proposed an “Urban Agricultural Strategy” to be incorporated in the CCP. The vision in creating an urban agriculture strategy at UBC is one which “emphasizes edible landscaping, [in turn] enticing community members to become involved in their immediate environment and how it connects to the food system. Students and faculty, can take this stronger connection into their own education and research. Benefits, challenges and strategies for implementation of the strategy are outlined (Group 12).
- Strategic actions were proposed to create an “Edible UBC Campus” to be enacted in conjunction with the UBC Farm. These actions include the following: demonstration garden, designated garden areas, greenways and open space, food production on buildings, waste management and agriculture and landscaping management considerations” (Group 12).

Analysis of the South Campus Neighbourhood Plan (SCNP)

- Significant opportunities were discovered in the South Campus Neighbourhood Plan to propose “specific and practical projects that contribute to the sustainability of food production, distribution, consumption and waste management” such as: project opportunities for rooftop gardens, community gardens, school gardens, the South Campus Neighbourhood “Village Grocery Store”, and composting in the SCNP. Benefits, challenges and implementation strategies were proposed for each (Group 5).

Analysis of Main Campus Plan (MCP)

- The “sustainability concept in current academic discourse [social, economic and ecological components] is not present in any form in the mission statement” in the MCP (Group 3).

- The MCP is typical for campus planning for the time, and “exemplifies how traditional urban planning is primarily concerned with the land use relationships between built forms and the physical environment. The MCP focuses on planning for institutional infrastructure and not the food system” (Group 14).
- Three key areas have been identified for planning successful urban agriculture into the MCP and the UBC main campus: (1) Micro-gardens; (2) Education and Community Involvement; and (3) Waste Management (Group 3).
- A “Supplementary Food System Plan” was proposed where specific principles and strategies for its implementation are outlined. The following principles are proposed: (1) Increase the physical capacity of the UBC campus to support the growing of food; (2) Increase the amount of food consumed at UBC that is produced both organically and locally; (3) Encourage practices that manage waste flows in a more sustainable manner; (4) Encourage the celebration of food and the local food system at UBC; (5) Encourage food consumed at UBC that is produced in other regions or countries to be produced under ethical and environmentally sustainable practices; (6) Increase the capacity of UBC to provide or support basic food security initiatives for the local community, and (7) Ensure that there is adequate distribution of food facilities on campus along with corresponding actions. This plan, along with the addendums to the MCP “can help to guide the campus into developing a sustainable food system”. The MCP will act as an umbrella to enable the supplementary plan, and suggestions discussed there within, to be implemented” (Group 14).

Scenario #5: UBC Farm: Exploring Alternative Routes to Enhanced Viability (Groups 2, 10)

- Two groups explored ways that the UBC Farm can become a financially viable operation either through Community Supported Agriculture (CSA), forming contractual agreements with campus and off-campus food providers, and/or adopting alternative production plans, while at the same time serving as a place for learning, action and a site of sustainable agriculture.

Increasing Existing Collaboration with Campus Food Providers and Creating New Business Collaborations with *Off-Campus* Food Providers

- It was found that Sage is committed to buying “as much produce as [the Farm] can grow” (Group 2).
- An introductory survey of fine-cuisine restaurants in the Point Grey community was developed [see [Appendix B](#)] to assess what special produce from the UBC Farm might be desired by chefs at 3 restaurants. After talking to the Food Import Manager of Provence Mediterranean Grill, it was “found that he would be interested in purchasing specialty food items and regular produce from the UBC Farm”. It was also found that the Naam “is interested in buying organic crops from the Farm. However, they are not interested in the purchase of specialty items, which are too exotic for their cuisine. Instead, they would like to purchase items such as potatoes and onions” (Group 2).

Proposed Agroforestry Opportunities for the UBC Farm:

- Responses from the Survey indicated that “there is a potential local market for non-timber forest products”. These responses as well as secondary research conducted suggested that edible native plant production (elderberry, soapberry, wild onion, wild ginger, etc.), mushroom production, and landscape tree/herb/shrub production could profitably satisfy a local niche market *and* could create exciting research opportunities (Small Woodlands Program of BC, 2001 in Group 2).

Proposed Alternative and Enhanced Production Plans for the UBC Farm

Animal Production:

- It was found that “currently in BC, the demand for specialty eggs (particularly organic, free range) exceeds the supply (BC Egg Producers Association, 2005)” (Group 2).

- If the UBC Farm wished to increase its flock to increase its market share, they would have to increase labour and infrastructure investments, since the “current hen house cannot accommodate more than 85 birds and higher egg volume would require more handling” (Group 2).

Expand current Production for Specialty Item Production:

- Given the “constraint of limited cultivatable lands on the UBC Farm, planting specialty crops that yield higher profit appears to be one of the most efficient ways to improve the profitability of the UBC Farm” (Group 2). Below is list of potential ways to increase production and Farm revenue:

Using 3 hectares of the currently uncultivated land:

- Increase production of specialty items by guaranteeing an expanded local market for these items. A marketing team could be hired to “contact potential major customers and advertise for the UBC Farm in the local neighborhood... as well as to establish better communications on the types and availability of produce at the UBC Farm” to facilitate increased market collaboration (Justin Faubert, Provence Mediterranean Bar and Grill, personal communication, March 22, 2005 in Group 2).
- “Investments should be made on research of suitable production methods for some of the high-margin, high-demand crops such as shiitake mushrooms and oyster mushrooms, which were either produced unsuccessfully in the past or have not yet been attempted” (Group 2).

Using the remaining 2 hectares of uncultivated land:

- The remaining 2 hectares of uncultivated land should be used to produce strawberries for the following reasons:
 - “There is a great demand for strawberries in Canada. Presently, Canada consumes far more strawberries than it produces, thus importing the majority of purchasable strawberries from California, Florida, Poland and Mexico.
 - Strawberries have the fastest positive return in three years with the lowest initial cost during the first two years. Under the current circumstances, this is exactly what the UBC Farm needs, fast returns with low investment.
 - Strawberry farm-sale prices have increased by 42% over the last four years” (BCMAFF in Group 2).

Proposed Ideas for Integrating the CSA Program into UBC curriculum:

Immediate Opportunities:

- Using this data generated from the UBC Farm’s current pilot CSA project, a number of case studies were proposed that can be integrated into UBC classes. A few examples of case studies are the following:
 - (1) Food, Nutritional and Health students could be given data generated from the pilot project to create menus for the following CSA iteration, since “a common complaint of people who receive food boxes is that they are not sure what to do with all of the vegetables that they receive in their boxes, and therefore it would be useful to include recipes in the boxes each week.
 - (2) Food, Resource and Economic (FRE) students can research a case dealing with the economic success of a CSA program as compared to years without the program in place, or include the program in a small business management plan for the UBC Farm” (Group 10).

Longer-term Opportunities:

- The UBC Farm should implement “a field course for Agroecology students that would span the entire growing season, similar to the eight month apprenticeship offered at the University of California in Santa Cruz (CASFS)” that has been already discussed at recent meetings of the Farm Advisory Council (Group 10). The “CSA program creates a great framework for the easy integration of this season-long course

(CASFS), and the course can track the progress of the CSA”. Suggested components for the course are proposed (Group 10).

Key Recommendations

UBC Campus Sustainability Office (CSO):

- Should “continue to support the Farm through social marketing and educational campaigns in the UBC community as we are a leader in campus sustainability initiatives in Canada (CSO, 2005) and the Farm is a significant component of a sustainable vision at UBC” (Group 16).

UBC Food Services (UBCFS):

- Should “consider purchasing free-run *whole* chicken from Kidd Bros” for \$0.62 more per Kg of whole chicken (Group 6).
- Should “consider making this educational campaign an annual event when planning the UBCFS budget” (see Scenario 3, Group 9).
- Should “promote UBC Grown foods at Sage Bistro as well as at other campus food outlets. They can do this by using the “UBC Grown” logo beside menu items featuring UBC Farm products” (Group 7).
- Should “continue to increase the percentage of local food usage in all UBCFS outlets” (Group 9).
- Should upgrade their website to “reflect their involvement with the re-localization project” (Group 13) and also offer a section on the website that describes their current sustainability initiatives (author).

AMS Food and Beverage Department (AMSFBD):

- Should upgrade the AMS website to “reflect their involvement with the re-localization project” (Group 13) and also offer a section on the website that describes their current sustainability initiatives (author).
- Should consider purchasing chicken thighs, breaded chicken filets, and cooked diced chicken from local BC producers (Group 6).
- Should consider purchasing liquid eggs from a local BC producer (Group 6).
- AMS Catering should “continue to work with AGSC 450 students and Farm staff in developing a model that can be used to market future conferences” supplied with UBC Farm products (Group 15).

AMSFBD and UBCFS:

- Should consider purchasing free-range eggs from Kidd Bros., and raising retail prices slightly to offset increased egg costs (author).
- Should “promote local foods at all catering events and to use items grown on the UBC Farm when possible” (Group 16).
- Should review and consider implementing proposed educational campaigns, or at least consider implementing components of them (See Scenario 3, Groups 1, 9, 7, and 13 for detailed proposed educational tools and campaigns).

UBC Waste Management:

- Should work with Campus and Community Planning to implement a waste management strategy on the Main Campus of UBC, where the institutional area in the “Main Campus could include a comprehensive composting program, much like the program proposed for the future Southeast False Creek site and currently in use on the SFU campus” (Group 3).
- “Multi-purpose containers with three different compartments for garbage, compost and recycling should be scattered across the campus” (Group 3).

UBC Farm:

- Should “be involved with “Food Week” through the donation of produce to the cooking competition. They can also help to raise awareness about local food by handing out pamphlets and educating the public at weekly markets. The UBC Farm can also use the “UBC Grown” logo on all their food that they sell at the Saturday markets” (Group 7).
- Should resume research on high profit and demand items that have proven unsuccessful in the past, such as exotic mushrooms (Group 2).
- Should establish a marketing *team* to further promote specialty items and enhance relations with current and potential restaurant buyers both on and off campus (Group 2).
- Should expand the production of their free-range organically produced eggs (Group 2).
- Should create a summer youth camp to increase farm revenue, agricultural learning’s and fun (Group 2).
- Should further explore the potential for strawberry and greenhouse production (Group 2).

UBC Farm and Sage Bistro:

- Should consider advertising and/or increase advertising about their products, services and events through: UBC newspapers and publications, flyers and posters, and generating emails through faculties and student services (Group 4).
- Should compose and agree upon a written contract that outlines a mutually symbiotic business arrangement between the 2 stakeholders, which includes: (1) a list of desirable products that can be grown on the UBC Farm that Sage would like to purchase; (2) a set of common product prices; (3) a method of delivery transport that is cost-effective, efficient and sustainable, and (4) a list of risk-sharing potentials (Group 4).
- Should explore the potential to create a culinary school, where the facilities at Sage are used and UBC Farm products are purchased and used (Group 2).

Sprouts:

- Should use the “UBC Grown” logo to showcase produce from the UBC Farm (Group 7).
- Should develop an intensive marketing strategy to increase awareness of its services, which could potentially lead them to purchase more specialty items from the UBC Farm (Group 2).

UBC Campus and Community Planning (CCP):

- Should consider incorporating our proposed addendums to the MCP, and adopting the “Supplementary Food Plan” as well as incorporate other sustainability initiatives as deemed fit (Group 14).
- Should consider formulating and implementing a “food and agricultural” strategy which “includes specific guidelines for actions address the following five components: Community gardens, school gardens, rooftop gardens, local food procurement, and waste management” (Group 5).
- Should consider implementing our strategic actions in our proposed “Urban Agriculture Strategy”, and other proposed amendments to the CCP and the OCP to include food, “water, air, transportation, and waste management” components to plans (See **Appendix F**) (Group 12).

Faculty of Land and Food Systems:

- The Faculty should further engage themselves and advertise to UBC students that they can earn academic credits for work done on the Farm (Group 2).
- Should “use the data generated from the CSA pilot project to incorporate more case studies of the UBC Farm into Agroecology, FRE and FNH classes” (Group 10).

AGSC 450 2006 Colleagues:

- Based upon Group 8’s three proposed methods of administration, determine the *best* administration method for the questionnaire.

- Develop information pamphlets about local food and sustainability and distribute to respondents upon questionnaire completion (Group 8).
- Launch “a strong marketing campaign to inform the public about issues to increase their desire, willingness and capacity to purchase local foods” (Group 8).
- Investigate potential local beef producers, processors and suppliers who would be interested in meeting the large beef product demands of UBC (author).
- Investigate further potential animal product suppliers that can supply UBC food providers with *affordable* sustainably produced foods (for medium, large and liquid ideally Free-Range eggs; for whole Free-range whole chicken, and for ideally Free-Range (if not then Free-Run) chicken parts (author).
- Further build upon Group 4’s list of food items that Sage is interested in purchasing that can be grown on the UBC Farm (see **Appendix C**)(Group 4).
- Investigate ways that the UBC Farm can expand its market to other campus food outlets, such as those in the Student Union Building, The Barn, etc. (Group 4).
- “Further investigate local distributors to increase [menu] options” (Group 11).
- Based upon the items already investigated, further investigate potential items that the UBC Farm can provide for future local food conferences. Re-assess current menu item choices, planning and prices accordingly (Group 11).
- In “order to ensure subsequent funding in years to come, it is recommended to assess the effectiveness of the educational campaign. Future groups should consider conducting an evaluation of awareness of local food issues in the UBC population previous to and following the campaign with pre- and post-test surveys”(Group 7).
- Should gather feedback from AMSFB staff regarding how they feel about the campaign, whether it can be improved, and whether the resource guide has been useful or not. Feedback can be gathered through the distribution of a simple survey or through interviews. Feedback collected can be used to update the pamphlet and resource binder to enhance the effectiveness of these tools (Group 13).
- Should consider expanding the scope of the “Local Food Cook-off” competition to involve AMS Food and Beverage Department” (Group 9).
- Should be provided with “the opportunity to work more closely with UBC Properties Trust and Campus and Community Planning so that a realistic and mutually beneficial plan may be created”, such as our proposed “Urban Agriculture Strategy”, or other proposed amendments to include food, “water, air, transportation, and waste management” components to plans (Group 12).
- Work together with “other faculties, such as Engineering and the School of Community and Regional Planning, to increase the food sustainability on campus” (Group 14).
- Should “summarize the data collected from the summer 2005 pilot CSA project and make recommendations on box size(s), box prices, produce selection, land needs, and more efficient organization practices for the 2006 CSA program” (Group 10).

Key Strengths and Weaknesses

The main strengths in the UBCFSP this year included a high level of student enthusiasm for the project, and the overall quality of creative ideas and findings that emerged from group’s work on their scenarios. The main weaknesses in the UBCFSP this year included a lack of understanding among many groups regarding the difference between a vision statement and the detailed plans needed for its implementation; a lack of clarity about which file formats to use in submitting papers, and the strong need felt among many groups for more time to be allocated to work on their scenarios earlier, due to many time lapses experienced in waiting for participant responses which were necessary for groups to move comfortably forward in other related tasks.

INTRODUCTION

A UBC Food System Project (UBCFSP) was created in 2001 in an effort to improve the sustainability of UBC's food system. While, many sustainable initiatives were unfolding on campus, none dealt directly with the food system, hence the development of the UBCFSP emerged. The UBCFSP is a Community Based Action Research Project initiated jointly between the Faculty of Land and Food Systems (formerly Faculty of Agricultural Sciences) and Social Ecological Economic Development Studies Program (SEEDS). The Project is radially organized involving a multiple partners and collaborators: UBC Food Services, UBC Waste Management, UBC Farm, UBC Sage Bistro, UBC Campus and Community Planning, UBC Campus Sustainability Office (CSO), SEEDS, Faculty of Land and Food Systems (AGSC 450 students and teaching team), and the Alma Mater Society Food and Beverage Department (AMSFBD). This year the UBCFSP expanded to include Campus and Community Planning and the Sauder School of Business as collaborators, and Sage Bistro as a project partner.

The **goals** of the UBCFSP are:

1. To conduct a UBC food system sustainability (social, ecological and economic) assessment.
2. To identify barriers that impinges on the ability of UBC food system partners and collaborators to make desired transitions towards sustainability.
3. To create a shared vision, among UBCFSP actors, of a sustainable UBC food system and express it in the form of consensus-based guiding principles
4. To develop a shared model, among UBCFSP actors, of our transition towards a sustainable UBC food system, including specific goals, steps and benchmarks to assess progress in the transition toward sustainability.
5. To develop opportunities and articulate recommendations for UBCFSP actors to enhance the sustainability of the UBC food system.
6. To implement measures collectively deemed necessary to facilitate transitions towards UBC food system sustainability (Richer, 2004).

The project officially commenced in 2002, and has a minimum 5 year plan. The UBCFSP is part of an AGSC 450 Land, Food and Community III course, one of three interdisciplinary series courses that share a focus on sustainability and food system issues, and is required for all Faculty of Land and Food Systems undergraduate students. Students are assigned specific case scenarios in which they must work collaboratively in groups to develop plans for sustainability transitions in our food system. Each year students must build off the work of previous years of the project, in turn creating an immense collective memory that grows each year. Students work is summarized each summer by the UBCFSP Coordinator, who integrates the findings in a paper, and presents key aspects from the report in a summer workshop where all UBCFSP partners and collaborators are invited. Comments are elicited from partners and collaborators at this workshop, and the Coordinator integrates them and proposes recommendations to the Project Investigators, partners and collaborators as well as the Teaching Team to produce the scenarios for the next iteration of the project.

Below is a summary of the primary objectives, tasks, and deliverables for each year of the UBCFSP to date. Links to each year's summary of findings are also provided below.

Year 1: Spring 2002

Primary Objectives:

1. Begin conceptualization of what is required to assess the sustainability of the food system.
2. Conduct a very preliminary assessment of UBC's food system.

Tasks:

- Using an exploratory approach, 150 AGSC 450 students (17 teams) and the AGSC 450 teaching team began the ambitious task of conducting the first stage of a UBC food system assessment. Working from one of seventeen scenarios (see the UBCFSP website: <http://www.agsci.ubc.ca/courses/agsc/450/project> for a full description), students were assigned the following tasks:
 1. Conduct a preliminary assessment of 1 aspect of the sustainability of the UBC food system.
 2. Propose research methods, indicators and make recommendations to relevant partners and collaborators.

Deliverables:

- Results were presented in both written and oral format. Findings were presented in a 25 minute oral presentation, where students had to present both their findings, using a corresponding website they designed to the class and invited UBCFSP guests.

Summary of Findings:

- In the summer, student findings were integrated by the Project Coordinator into a report, and presented in meetings with Project partners and collaborators.
- A summary of findings for Year 1 can be found in Brunetti, A. 2002. *Biting into Sustainability: The 2002 UBC Food System Collaborative Project Report*. Online at: <http://www.agsci.ubc.ca/courses/agsc/450/project>

Year 2: Spring 2003

Primary Objectives:

1. Begin to come up with a vision of what a sustainable UBC food system should look like.
2. Begin to develop models which outline the steps necessary required to make transitions to the vision.

Tasks:

- Based upon the findings of Year One, 151 AGSC 450 students (20 teams) and the AGSC 450 teaching team began the task of developing a research methodology and design of what they thought would act as a tool in assessing the sustainability of the UBC food system. Working from one case (see the UBCFSP website: <http://www.agsci.ubc.ca/courses/agsc/450/project> for a full description), students were assigned the following tasks:

1. Begin to come up with a vision regarding what a sustainable UBC food system should look like.
2. Begin to develop a model (steps necessary to make transitions towards the vision).
3. Working off 1 case, identify principles, procedures, indicators, system maps for future work.

Deliverables:

- Results were presented in both written and oral format. Findings were presented in a 25 minute oral presentation, where students had to present both their findings, using a corresponding website they designed to the class and invited UBCFSP guests.

Summary of Findings:

- In the summer, student findings were integrated by the Project Coordinator into a report, and presented in meetings with Project partners and collaborators.
- A summary of findings for Year 2 can be found in Bouris, K. 2003. *2003 UBC Food System Collaborative Project: Summary of Findings*. Online at: <http://www.agsci.ubc.ca/courses/agsc/450/project>

Year 3: Spring, Summer & Fall 2004

A regular 4 month spring term AGSC 450 course was held, as well as the first time offering of a 3 week intensive summer term AGSC 450 course. In the fall, 1 group from the Sauder School of Business took part in a UBCFSP scenario.

Year 3: Spring 2004

Primary Objectives:

1. To achieve consensus on a vision of a sustainable food system.
2. To achieve consensus on a model of a sustainable food system.
3. To develop research methodologies to set the stage for assessment.

Tasks:

- Based upon the findings of Year 1 and 2, a total of 143 students were divided into 20 working groups, and along with the teaching team, began to explore UBC food system sustainability in greater depth.
- Working from one of eight scenarios (see the UBCFSP website: <http://www.agsci.ubc.ca/courses/agsc/450/project> for a full description), students were assigned the following tasks:
 1. Begin an attempt to reach a *shared* consensus in regards to what a sustainable UBC food system should look like (vision).
 2. Begin an attempt to reach consensus in regards to how we should make transitions to the vision (model).

3. To test *applicability* of groups preferred models, principles, indicators, research designs on 1 of 8 assigned scenarios that reflected “very real problems needing investigation to better identify the actions needed to move the UBC food system towards sustainability” (Rojas, Wagner & Richer, Summer 2004).

Deliverables:

- Results were presented in both written and oral format. The written report was supposed to constitute a 15 page paper plus appendices, table of contents, tables, abstract and bibliographies. Findings were presented in a 25 minute oral presentation, where students had to present both their findings and their website to the class and invited UBCFSP guests.
- On the second last day of classes, all groups presented their papers and websites to the entire class and teaching team. On the last day of class, all groups submitted their reports and 4 of the best presenting groups that were selected by the teaching team with input from the class, presented their findings and website to the class, as well as UBCFSP partners who could attend.

Summary of Findings:

- In the summer, student findings were integrated by the Project Coordinator into a report, and presented in a workshop with Project partners and collaborators.
- A summary of findings for Year 3 can be found in Richer, Liska. 2004: *Making paths towards a just, sustainable and food secure UBC food system: 2004 UBC Food System Project (UBCFSP) report*. Available online: <http://www.agsci.ubc.ca/courses/agsc/450/project>

Year 3: Summer 2004

Primary Objectives:

1. To refine the vision of a sustainable UBC food system.
2. To refine the chosen best model of a sustainable UBC food system.
3. To refine proposed research designs from the spring term to set the stage for data collection.

Tasks:

- Based upon the findings of Year 1, 2, and 3, a total of 12 students were divided into 4 working groups, and along with the teaching team began to explore UBC food system sustainability in greater depth.
- Working from one of two scenarios (and 2 sub-scenarios) (see the UBCFSP website: <http://www.agsci.ubc.ca/courses/agsc/450/project> for a full description), students were assigned the following tasks:
 1. Further develop and refine proposed research designs since 2002 to enable 2005 class to engage in actual data collection.
 2. Develop an advanced methodology for 2 scenarios.
 3. Make recommendations on how to better refine the chosen best model and vision.

Deliverables:

- Results were presented in both written and oral format. The written report consisted of a 25 page report including appendices, abstract, table of contents and bibliographies. Findings were presented in a 25 minute oral presentation, where students presented their findings using a PowerPoint presentation to the class and teaching team. Presentations took place on the last day of classes, and reports were submitted shortly thereafter.

Summary of Findings:

- In the summer, student findings were integrated by the Project Coordinator into a report, and presented in a workshop with Project partners and collaborators.
- A summary of findings for Year 3 can be found in Richer, Liska. 2004: *Making paths towards a just, sustainable and food secure UBC food system: 2004 UBC Food System Project (UBCFSP) report*. Available online: <http://www.agsci.ubc.ca/courses/agsc/450/project>

Year 3: Fall 2004

- 5 UBC Sauder School of Business students (1 group) were given the task to design a marketing campaign to promote local foods with UBC Food Services. Project report can be found online at: www.sustain.ubc.ca

Year 4: Spring 2005

Primary Objectives:

1. To prepare detailed action plans to be implemented in 2006 and/or actual engage in actual data collection.
2. To refine and propose research designs.
3. To define what constitutes local foods.

Tasks:

- Based upon the findings of Year 1, 2, 3, and 4 a total of 111 students were divided into 16 working groups, and along with the teaching team began to explore UBC food system sustainability in greater depth.
- Working from one of five scenarios (including 2 sub-scenarios) listed in Table 1 below, (see Appendix A for a full description), students were assigned the following tasks:
 1. Provide reflections on our Vision Statement which outlines principles that should guide our transition towards a sustainable UBC food system should look like.
 2. Provide reflections and expand if necessary the problem statement assigned to them in the description of their scenario.
 3. Further develop and refine proposed research designs, campaigns, and action plans from 2004.
 4. To either engage in actual data collection and/or develop detailed action plans for implementation in 2006.

5. To provide recommendations for the next steps to appropriate partners and collaborators.

Table 1: 2005 Scenario Assignments

SCENARIO	TITLE	GROUPS ASSIGNED
<u>Scenario #1:</u>	Desirability of Re-localization	(Group 8)
<u>Scenario #2:</u>	Feasibility of Re-localization	(Group 4, 6, 11, 15, 16)
Scenario 2a)	Feasibility of Re-localization on Campus	(Group 6)
Scenario 2b)	Feasibility of Increasing Farm Provision of Specialty Items to UBC	(Group 4)
Scenario 2c)	Feasibility of Supplying a Food Conference with Local Foods from UBC Farm	(Group 11, 15, 16)
<u>Scenario #3:</u>	Education, Awareness and Re-localization	(Group 1, 7, 9, 13)
<u>Scenario #4:</u>	Exploring Existing Opportunities that Enhance and/or Barriers that Impinge on the Sustainability of the UBC Food System within Current Campus Community Plans	(Group 3, 5, 12, 14)
<u>Scenario #5:</u>	UBC Farm: Exploring Alternative Routes to Enhanced Viability	(Group 2, 10)

Deliverables:

- The final group projects were presented in both written and oral format. The written report consisted of approximately 25 pages. Findings were presented in a 25 minute oral presentation, where groups were asked to present their project using a PowerPoint presentation to the class and teaching team. Presentations took place on the last day of classes, and reports were submitted shortly thereafter.

Purpose of this paper:

In total 16 group papers were prepared by AGSC 450 in spring 2005. This amounted to approximately 49 pages of findings, proposed methodologies, action plans, and recommendations, based upon 5 scenarios (including 2 sub-scenarios).

The purpose of this paper is threefold:

- (1) To integrate and summarize key findings and recommendations developed by AGSC 450 students involved in the UBCFSP in 2005.
- (2) To aid in preparing the groundwork required for Year 5 (AGSC 450, spring 2006) of the project.
- (3) To aid in initiating, strengthening and coordinating communications and initiatives among UBCFSP partners and collaborators.

Project Methodology and Design

Methodological Perspective:

Community Based Action Research (CBAR) serves as the overarching methodological perspective in the UBCFSP. CBAR can be defined as an “inquiry or investigation that provides people with the means to take systematic action to resolve specific problems”; it enables “people (a) to investigate systematically their problems and issues, (b) to formulate powerful and sophisticated accounts of their situations, and (c) to devise plans to deal with the problems at hand” (Stringer, 1999). The tasks of CBAR are to capture participants’ pluralistic voices and to situate their experiences within larger contexts. The goals of CBAR are to produce knowledge through open discourse; produce action and change, and to give research back to the community in which it originated. The process of CBAR is an iterative one, whereby research is conducted through a “look, think, act” routine, which involves a “constant process of observation, reflection and action” (Stringer, 1999).

Methods of Data Collection:

Methods of data collection that have been used by AGSC 450 students throughout the project consist of the following:

Secondary sources:

Students review an array of secondary sources ranging from: required and recommended course readings, materials from the AGSC 450 course WebCT site, and electronic and written material from UBCFSP partners and collaborators. The AGSC 450 WebCT site contained archives of all previous AGSC 450 students’ papers and presentations involved in the UBCFSP, relevant reports, articles and links to websites helpful to their scenarios, general tasks posted by the teaching team, and summaries of UBCFSP findings from previous years (Richer, 2004).

Presentations:

Students are provided with the opportunity to obtain information from invited course guest speakers, who typically give a brief presentation to the class and then open the floor for questions and discussion. Guest speakers throughout the term have included representative’s from UBC Food Services, Alma Mater Society Food and Beverage Department, UBC Campus Sustainability Office (CSO), UBC Social Economic Ecological Environmental and Development Studies (SEEDS), Faculty of Land and Food Systems, UBC Farm, UBC Campus and Community Planning (CCP), Masters in Landscape Architecture Program, local food distributors (Discovery Island Organics, Small Potatoes Urban Delivery (SPUD)), Dieticians of Canada, and the City of Vancouver Social Planning and City of Vancouver Food Policy Council (Richer, 2004).

Informal and formal interviews:

Students have conducted informal and formal email, telephone and face-to-face interviews with informants including UBCFSP partners, collaborators, other UBC stakeholders, and product distributors, retailers and organizations (Richer, 2004).

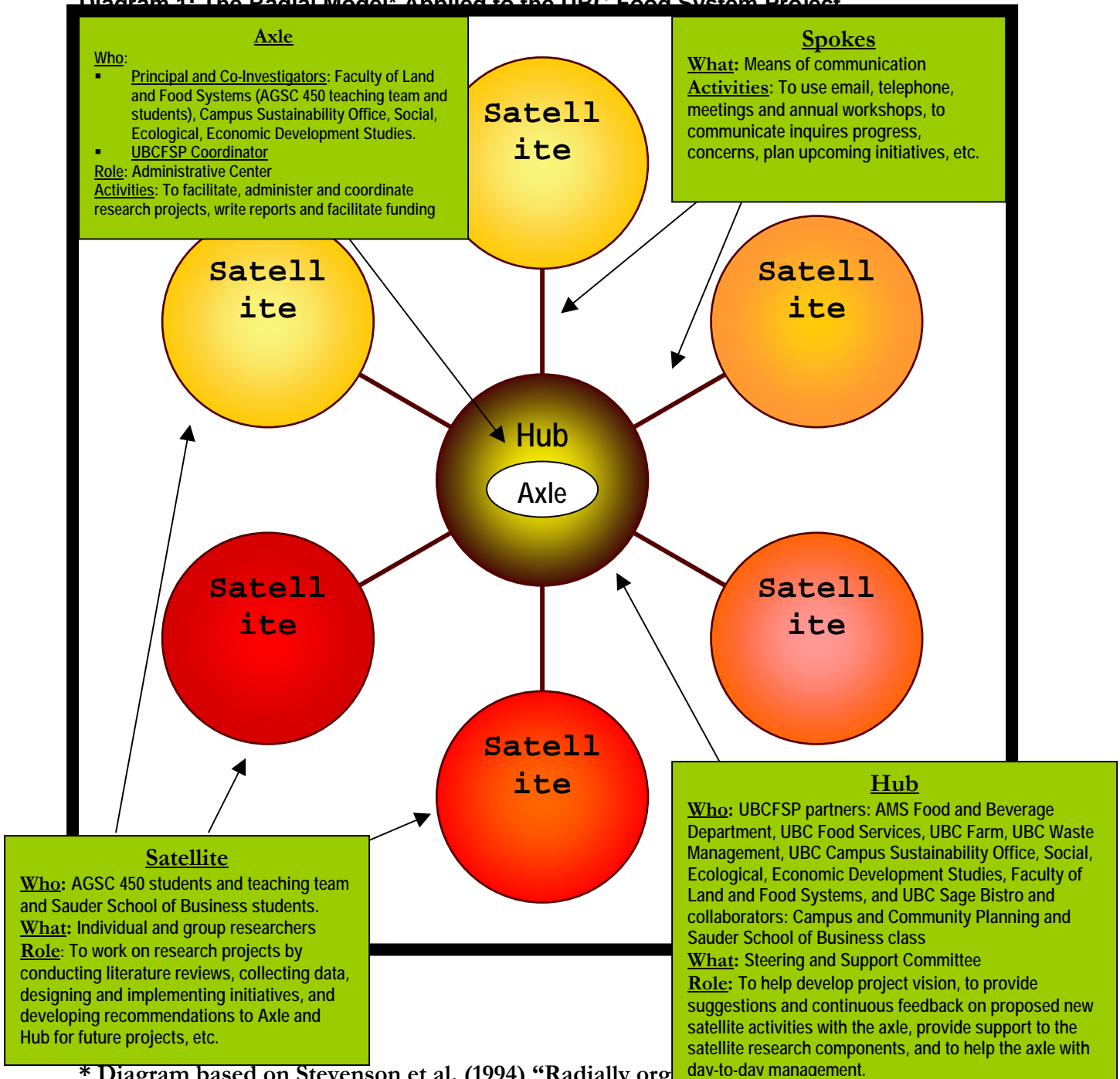
Questionnaires:

Students have developed and distributed questionnaires to UBCFSP partners, collaborators and to UBC students (addressing the desirability and willingness to pay for local foods and feasibility of local foods, food eating habits).

Project Design:

In the UBCFSP, AGSC 450 students (assigned in groups between 3-8 people depending upon size of the class) are primarily responsible for designing, conducting research and planning initiatives. Other UBCFSP partners are involved namely in designing and planning initiatives, and in acting as resource persons. The AGSC 450 teaching team primarily acts as resource persons, facilitators, and in planning the entire project based upon student work and discussions with stakeholders. See **Diagram 1** below for a visual depiction of our radially organized team of partners and collaborators:

Diagram 1: The Radial Model* Applied to the UBC Food System Project



* Diagram based on Stevenson et al. (1994) "Radially org
Overview of General Problem Definition

The UBCFSP was initiated in 2001 because of the lack of integration of food and related issues in UBC’s campus sustainability policy, and has continued because of growing realities that transitions need to be made in many areas in UBC’s food system, which can be viewed as a microcosm of the global food system to increase its sustainability.

Summary of Group Reflections on the Vision Statement for a Sustainable UBC Food System (7 Guiding Principles)

All groups this term were assigned the task to provide reflections on the UBCFSP Vision Statement. We have defined a vision statement as a synthesis of ideas that describes the attributes of a sustainable food system. It tells us “Where do we want to go?” and “What does our common dream look like?” Specifically, groups were asked to “briefly indicate whether they agree or disagree with the principles and identify anything that should be added to or taken away from the principles” (Rojas, Richer and Wagner, 2005). Groups were asked to provide comment on two versions of the Vision Statement that have been developed: (1) “2002-2004 Partner Consensus Version” and (2) “Plain Language” version. The vision statement is based upon student responses elicited from years 2002-2004. In 2004 the UBCFSP Coordinator listed these responses, ranked the most frequently cited, and extracted commonalities between them, and then worked with the Principal Investigator to articulate these responses into a formal vision statement. As a result, a vision statement was formed, consisting of 7 guiding principles, which are those attributes that should guide us towards our vision. This vision statement provided below was presented in 2004 at the summer UBCFSP Stakeholder Workshop to determine whether consensus could be reached about what *our* vision of a sustainable UBC food system looks like – and we did. Based upon this version, a “Plain Language” Vision Statement was developed by a representative from the Campus Sustainability Office (CSO). Input elicited from this year’s student groups will be discussed at the 2005 summer UBCFSP Stakeholder Workshop to determine whether adjustments in the vision statement are needed.

Vision Statement for a Sustainable UBC Food System: 2002-2004 Partner Consensus Version 7 Guiding Principles:	
1.	Must protect <i>and</i> enhance the diversity and the integrity of the natural ecosystem that supports it. It must preserve the resources needed that can make it function indefinitely
2.	Relies on local inputs when possible, where inputs and waste are recycled and/or composted back into the system in which it originated
3.	Is a secure system that provides food that is affordable, available, accessible, culturally, ethically and nutritionally appropriate, socially just, safe and resilient
4.	Provides for healthy diets that do not compromise the ability of people to feed themselves or others in the present or in the future
5.	Entices pleasures, and nurtures feelings of commensality around the food table
6.	Enhances feelings of community belonging which requires a heightened awareness of every component, from the point of production to end disposal
7.	Is based on <i>long</i> -term financial viability; contains a balance of imported <i>and</i> local foods whenever possible; uses foods that come from socially and ecologically conscious producers who receive fair prices for their products

Vision Statement for a Sustainable UBC Food System: Plain Language Version

The overarching goal of a sustainable food system is to protect and enhance the diversity and quality of the ecosystem and to improve social equity, whereby:

1. Food is locally grown and produced.
2. Waste must be recycled or composted locally.
3. Food is ethnically and ethically diverse, affordable and nutritious.
4. Providers educate consumers about cultivation, procession and nutrition.
5. Food brings people together and enhances community.
6. Is produced by socially, ecologically conscious producers.
7. Providers pay fair prices.

2005 Summary of Group Reflections on the Vision Statement: (Note: Group 3 ceased to provide any reflections on the vision statement)

	Group Reflections
<p>General Vision Statement</p>	<ul style="list-style-type: none"> ▪ Overall, the vision statement as a whole resonated well with group’s own vision of a sustainable UBC food system (Group 2, 4, 6, 7, 8, 9,10, 11, 12, 13, 14, 15, and 16) ▪ One group felt that in order to address all 7 principles, compromises would have to be made at times about which principles should take precedent. Thus, the group felt that continuous efforts be made to find appropriate balances among principles “at different planning and implementation stages as the project progresses” (Group 8). ▪ One group felt the need to add an 8th GP to “address the issue of looking at the UBC food system in a global context and being aware of the reciprocal impacts the UBC food system and those [other] systems have on one another” (Group 8). The group deemed this necessary because they believed that “in order to ensure that the foods provided to UBC are safe and nutritious, UBC must help the systems around it, such as local farmers and food distribution channels, to build their own sustainable systems that can continuously supply good quality products to UBC” (Group 8). ▪ One group felt that the vision statement sounds too “lofty and idealistic” because it “lacks realistic guidance on how to achieve these goals”⁴ (Group 10). ▪ One group felt that the vision statement was “too theoretical and without direction”⁵ and would benefit from having “leverage points to initiate momentum...in creating meaningful change” (Group 5). ▪ While one group agreed “that having principles and/or a policy will

⁴ Unfortunately, these groups did not comprehend how to distinguish between general principles from the detailed plans needed for its implementation (i.e. guiding principles are by definition theoretical and are *intended* to be idealistic since they are those attributes that are supposed to guide us towards our *ideal* world).

⁵ Same as above

	<p>enhance an organization’s commitment to achieving its mission” they believed that “these principles should have clear and measurable objectives that are specific, attainable, realistic, and time orientated”⁶ (Group 1).</p> <ul style="list-style-type: none"> ▪ Some groups felt that the vision statement was overall too wordy and could be condensed and re-worded (Group 7, 13). ▪ One group, while agreeing with the vision statement, felt that the principles “difficult to integrate and implement in institutional planning” on campus, and in turn created a congruent set of objectives (see specific principles) with the principles for campus planning (Group 14).
<p>Specific Guiding Principles GP #1. Must protect <i>and</i> enhance the diversity and the integrity of the natural ecosystem that supports it. It must preserve the resources needed that can make it function indefinitely</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Must protect <i>and</i> enhance the diversity and the integrity of the natural ecosystem and resources that supports it” (Group 7). ▪ One group, while they agreed with this principle, contained some members who suggested it can be “divided into to form two different principles, one pertaining to biodiversity, and the other to resource sustainability” (Group 9). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Increase the physical capacity of the UBC campus to support the growing of food” (Group 14).
<p>GP #2. Relies on local inputs when possible, where inputs and waste are recycled and/or composted back into the system in which it originated</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Relies on local inputs when possible, where inputs and waste are recycled and/or composted locally” (Group 7). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Increase the amount of food consumed at UBC that is produced both organically and locally” (Group 14). ▪ One group suggested that this principle should indicate exactly what is defined as “local” (Group 11).
<p>GP #3. Is a secure system that provides food that is affordable, available, accessible, culturally, ethically and nutritionally appropriate, socially just, safe and resilient</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Is a secure system that provides food that is affordable, available, accessible, culturally, ethically and nutritionally appropriate, and safe and can adapt to change” (Group 7). ▪ One group felt that this principle could be condensed by integrating it with GP’s #4 and 7 (Group 13). ▪ While, the group agreed that food should be affordable, they thought that it also essential that food not be undervalued in its price (Group 2). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Encourage Practices for managing waste flows in a more sustainable manner” (Group 14).
<p>GP #4. Provides for healthy diets that do not compromise the ability of people to</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Nourishes the present generation to provide for healthy diets that do not compromise the food security of future generations” (Group 7). ▪ This principle should be expanded to address <i>how</i> the ability of people to

⁶ See footnote #4

<p>feed themselves or others in the present or in the future</p>	<p>feed themselves can be enhanced. It could include at the end of the phrase the following: “through sustainable farming practices, fair prices for consumers and fair return for food producers” (Group 6).</p> <ul style="list-style-type: none"> ▪ One group felt that while they agreed with this principle they felt that “the current trend of cheap comfort foods and unhealthy food choices serves as an obstacle for the food service operators on campus” and thus implied that it should not be included in the vision statement (Group 1). ▪ One group felt that this principle should include the following at the end: “minimizes the risk of chronic disease” (Group 16). ▪ One group contained some members who found this principle difficult to understand and/or redundant and suggested combining it with the latter half of GP #1. While other members agreed with this principle (Group 9). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Encourage the celebration of food and the local food system at UBC” (Group 14).
<p>GP #5. Entices pleasures, and nurtures feelings of commensality around the food table</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Nurtures feelings of community and promotes enjoyment of food around the food table” (Group 7). ▪ Some groups felt that this principle could be condensed by integrating it with GP #6 (Group 1, 13). ▪ While it was agreed for the need to articulate the social component of food security, it was felt that this is firstly a <i>social responsibility</i> and should be worded as such (Group 4). ▪ A sustainable food system entails that connections be sought between consumers and producers “as a way to better understand the origin of our food and how we, as individuals are involved in the food system” (Group 4). ▪ Group member’s reflections varied regarding whether “commensality” should be included in this principle. “Some of the group’s members believed “commensality” was not a critical component of this vision while others considered it essential” (Group 4). ▪ One group felt that this principle is not an important component of the vision statement (Group 16). ▪ One group contained members who agreed with this principle yet at the same time felt that it could be “reworded to say that such a system entices pleasure and commensality when applicable, depending upon the food system operation in question (a casual dining restaurant will be better equipped to provide this than a fast food outlet, for instance)”. While others disagreed with this principle entirely because they felt that it was not a critical component of sustainability nor applicable to all campus vendors, and thus suggested its removal from the vision statement (Group 9). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Encourage food consumed at UBC that is produced in other regions or countries to be produced through ethical

<p>GP #6. Enhances feelings of community belonging which requires a heightened awareness of every component, from the point of production to end disposal</p>	<p>and environmentally sustainable practices” (Group 14).</p> <ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Enhances feelings of personal responsibility within the community, influenced by a heightened awareness of every component from production to disposal” (Group 7). ▪ Group members believed that “more emphasis could be placed on educational tools to foster awareness and understanding of the food system throughout the campus community” (Group 12). ▪ Group members suggested that it is important to include within this principle the necessity for developing <i>research</i> schemes related to food systems sustainability on campus (Group 12). ▪ Group members were divided regarding how integral of a component this principle is within the overall vision statement. Some members believed that it is too utopian to strive to increase awareness among consumers about their food system; while others believed that without attempting to strive to increase this awareness many consumers would “retain an unrealistic perspective of their food system” (Group 15). ▪ One group contained members who agreed with this principle; others who felt that it should include a component indicating a commitment to food worker education; while others felt that it is not a critical component in creating a sustainable campus food system, and thought it should be removed from the vision statement (Group 9). ▪ One group created a congruent objective with this principle tailored for UBC campus planning: “Increase the capacity of UBC to provide or support basic food security initiatives for the local community” (Group 14).
<p>GP #7. Is based on <i>long-term</i> financial viability; contains a mixture of imported <i>and</i> local foods whenever possible; on foods that come from socially and ecologically conscious producers who receive fair prices for their products</p>	<ul style="list-style-type: none"> ▪ One group felt that this principle could be condensed to the following: “Contains a mixture of imported and local foods that come from socially and ecologically conscious producers to ensure long-term financial viability” (Group 7). ▪ One group believed that “universities as community leaders and centers of knowledge should not be profitable” (Group 2). ▪ One group felt that the components in this principle addressing socially and ecologically conscious producers are “too idealistic and should be a long-term goal rather than a principle of a sustainable food system at the university” (Group 16). ▪ One group agreed with the first two parts of this principle, but felt the need to reword “contains a mixture of imported and local foods” to “contain a balance of imported and local foods, with emphasis on a shift towards more local foods”. Members also thought that “there needed to be more emphasis on the food providers than is implied by having this criterion at the end of the list”. Finally, some members felt the term “conscious producers” was problematic because it is impossible to regulate due to the highly subjective nature of the term conscious (i.e. the meaning greatly varies according to <i>whose</i> values or criteria) (Group 9). ▪ One group created a congruent objective with this principle tailored for

	<p>UBC campus planning: “Ensure that there is an adequate distribution of food service facilities on campus” (Group 14).</p> <ul style="list-style-type: none"> ▪ One group suggested that this principle should indicate “how local, organic and fair trade will be prioritized”, because if one can not attain all three at once, then which parameters will be considered more important? The groups strongly “felt that organic food traveling great distances should not take priority over locally grown food” (Group 11). ▪ One group, while they agreed with this principle, felt that “while there is a need to foster strong local food systems, these must be embedded within a global food system to fully meet humanity’s needs” (Group 11).
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Summary of Group Comments on the Definition of “Local”

In previous years, much ambiguity existed in group reports regarding the definition of what constitutes “local” food. Specifically, some groups defined local according to geographical boundaries, where as others defined it according to political ones, either regionally, provincially and/or nationally. As a result, this year the teaching team requested that students define what “local” food means to them in their group reports in an effort to establish clarity, and eventually consensus over the meaning of the term for the Project. We asked 9 out of 16 groups to complete this task because these groups were assigned a scenario that directly required a definition of local foods be developed to complete their tasks. Below is a summary of what groups reported local foods meant to them and the rationale of why they reached this decision. This summary will be presented to the rest of the UBCFSP partners to gather input and further the consensus process, in the summer workshop in fall of 2005.

Groups	Reflections on Definition of “Local” Foods	Rationale
Group 1	“Will be food produced within the physical boundaries of British Columbia. For food commodities not produced in sufficient amounts, or not within British Columbia, the next physically closest region within Canadian physical boundaries will be considered local. For products produced outside of Canada, preference will be given to foods produced from regions closest to British Columbia. We are placing importance on the “proximity” of the food system as criteria for being local”.	<ul style="list-style-type: none"> ▪ The use of this definition will allow for “reducing the dependence on other regions, but all the same, not rejecting external trade associations” (in Friedmann, 1993).
Group 6	Those foods that are “BC grown or raised”.	<ul style="list-style-type: none"> ▪ The use of this definition can help to “ensure that the BC economy will benefit [by] putting the money back where it came from”; “food products will travel the least amount of kilometers”, and can help prevent BC agriculture from declining.
Group 7	“As being any food produced, processed, or made within the province of British Columbia”.	<ul style="list-style-type: none"> ▪ “We wish to create a program that is economically as well as ecologically viable”. ▪ “Any local products purchased will benefit the provincial economy”.

Group 8	Those foods that are “BC grown”.	<ul style="list-style-type: none"> ▪ “We felt this provided a variety of food options and adequate land area without becoming too large. In addition, using the provincial boundaries would make it simple for respondents to visualize the area being considered as local”.
Group 9	“As foods originating from within British Columbia”.	<ul style="list-style-type: none"> ▪ “Despite ecological similarities and close proximity, we chose not to include Washington in our definition of local in order to strengthen the local economy and benefit B.C. farmers. Increasing procurement of foods grown in B.C. will have many benefits, such as enhancing the local economy, reducing negative environmental effects, reducing hidden food costs, and enhancing both a sense of community as well as a connection with the local foodshed (in Pretty, 2001)”.
Group 11	<p>“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...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”.</p> <p>“In the end we decided that food should come from Canada even if it could not be obtained in BC”.</p>	<ul style="list-style-type: none"> ▪ “Supporting “local” is to support the local economy, be it the BC or the Canadian economy”.
Group 13	Alternatively, we propose that a foods relative locality be determined on a case by case basis, using indicators of sustainability which “is inclusive of social, environmental and economic factors...such as “food miles and methods of production, and not only encompass political borders (economic incentives)”.	<ul style="list-style-type: none"> • “There are basically too many factors involved to conclude on a specific definition of local food...therefore the choice of indicators must be used on a case by case basis when determining a food’s relative locality”.
Group 15	“Only food items grown and purchased within British Columbia are dubbed “local,” while those products made in BC with ingredients produced from outside of the province are called “semi-local.””	<ul style="list-style-type: none"> ▪ Need to support or local economies, and by doing so can give increase profits for our farmers which enhances their “affordability to decrease the use of environmentally harmful practices, protect wildlife habitats, and improve the quality of food produced”.
Group 16	“Constitutes foods coming from within the boundaries of British Columbia”.	<ul style="list-style-type: none"> ▪ “In the end, it was felt that by setting the geographical boundaries of BC to define locally produced foods, it allows people

		to easily picture what our definition entails and it supports B.C. farmers and the economy in addition to creating a socially supportive system”.
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Overview of 2004 Spring Scenario #1: Desirability of Re-localization

Summary of Specific Problem Definition

If UBC food providers decide to *increase* their local food procurement practices, before they enhance this commitment they need to know if and what level of demand there is among UBC community members for local foods. Not only are we unsure whether or not demand exists for local food, we do not know how much and what proportion of the UBC community is willing to pay for local products.

General Research Question:

To develop a detailed research methodology to determine whether or not and to what extent UBC’s population is willing to buy local food (i.e. level of demand and interest), and whether or not UBC’s population is willing to pay more for local food, if deemed needed by food providers.

Summary of Methodology

Group 8 conducted a pilot study to test a draft questionnaire on a small sample of the perspective target population. The purpose of conducting the pilot study was to gather pilot’s feedback on the content of the questionnaire, the effectiveness of questionnaire design, and process of administration. By conducting the pilot test this year, it is hoped that it will inform preparation for developing an advanced methodology including a tested effective questionnaire based on the pilot’s responses, to launch with a representative sample in 2006.

Research Boundaries

The group drew their research boundary for the survey, around AMS Food and Beverage Department, UBC Food Services, and University Village food provider’s outlets.

Rationale for Choice of Boundaries

The boundaries were chosen to exclude the south campus community because the group felt that: (1) “it is not developed enough to effectively gauge the market through polling, and (2) it also reduces the complexity of the sampling methods involved in this kind of market research”. The University Village was included in the group’s boundary because they felt that “most people think of University Village as food on campus” (Group 8).

Target Population

All UBC food outlet customers were chosen as the target population.

Rationale for choice of target population

The target population was chosen to constitute all UBC food outlet customers because it was felt that since the objective of the questionnaire is to address respondents' demand and willingness to pay more (if deemed required) for locally produced foods at these outlets, "then a target population of all customers would allow for an accurate depiction of total demand for more locally produced foods on the UBC campus" (Group 8).

Sampling Methods:

A **convenience sample** was chosen as the sampling method. The convenience sample consisted of the 2005 AGSC 450 class and potential customers around the following UBC campus food outlets: The Barn, Totem Park cafeteria, the SUB, the UBC Hospital Cafeteria, 99 chairs, the University Village and outside the Buchanan complex.

The group chose **quota sampling** to serve as their sampling technique in administering their questionnaires to their convenience sample. Quota sampling involves dividing the target population into strata. The strata are chosen by the questionnaire administrators who choose participants "either by convenience (i.e. whoever walks by) or judgment" (StatPac Inc., 2005 in Group 8). Even though this technique does not allow one to calculate the standard error, and thus determine the accuracy of the data collected, it simplifies the task of collecting responses in a limited time frame and still gives valuable feedback on question design (i.e. can depict trends regarding which questions elicited adequate responses and which ones did not)(Group 8). This can help determine which questions, if any are poorly worded, etc.

Instrument of Data Collection

A draft questionnaire was developed by Group 8 based upon discussions within their own group and on previous year's proposed questionnaires by the Sauder School of Business fall 2004 group, and AGSC 450 groups. Before launching their questionnaire to their sample, Group 8 distributed their draft questionnaire to the entire AGSC 450 class, consisting of 111 students for suggestions. Upon questionnaire return, the feedback was then analyzed and then incorporated into a final questionnaire consisting of twelve questions to be distributed to their sample. See **Appendix B** for Group 8's questionnaire.

Methods of Administration

Two methods of administration were used in the pilot:

3. An electronic questionnaire was posted by Group 8 on the AGSC 450 course WebCT site for AGSC 450 students to respond.
4. Paper questionnaires were distributed face-to-face in the field to potential customers around the following campus food outlets: 99 Chairs, The Barn, Totem Park Cafeteria, the SUB, the UBC Hospital Cafeteria, The University Village and outside the Buchanan complex. Questionnaires were administered by group members using quota sampling techniques, describe above in "Sampling Methods".

Response Rate:

In the field survey a total of 49 individuals responded at food outlets across the campus. In the class survey, a total of 60 AGSC 450 students responded through WebCT. Thus, a total of 109 respondents participated.

Summary of Central Findings

Below are the tabulated results as well as brief discussion of findings that emerged from the pilot study:

Question 1 and 2: Demographics

	Field Survey	Class Survey	Both Field and Class Survey
UBC Undergraduates	30	59	
Faculty member	2	0	
UBC Staff	7	0	
UBC Graduates	6	1	
Others	4	0	
Male	27	10	
Female	20	50	
Didn't Answer	2	0	
Under 18 yr old	3	0	
19-30 yr old	35	56	
31-55 yr old	8	4	
Above 55 yr old	3	0	
Live on Campus with residence that provides food outlet services			9

Out of the 109 respondents, 89 were undergraduate students, 70 were female and 91 were between the ages of 19 to 30. Only 9 respondents lived on campus with residences that provided food outlet services.

Question 3: *“How many times a week do you purchase food on campus? (Including in the Village)”*

	Field Survey	Class Survey
0	4	9
1 to 3	19	40
4 to 6	16	9
7 to 9	3	1
>10	7	1

Out of the 109 participants, the majority (59) indicated that they purchase food on campus between 1 to 3 times per week.

Question 4: “How would you define locally produced foods?”

	Field Survey	Class Survey
Food produced in BC	15	31
Distance that food Traveled	3	13
Food produced in Canada	3	2
Food produced in Lower Mainland	7	6
food grown in Neighborhood	3	2
Others	2	6
Blank/or Unrelated Answers	18	0

Out of 109 participants, 46 believed that locally produced foods should be defined as “food produced in BC”. The majority of the class respondents indicated this to be the case, and no one left the question blank. Conversely, for the field respondents, 18 left the question blank or provided unrelated answers and 15 defined local as “food produced in BC”.

Question 5: “What are the benefits of eating locally produced food?”*

	Field Survey	Class Survey
Fresher and/or Cheaper	18/49 votes	32/116 votes
Increase local GDP growth	16/49 votes	33/116 votes
Convenient	5/49 votes	0 votes
Less environmental impact	9/49 votes	18/116 votes
Community Sustainability	0 votes	21/116 votes
Less transport costs	1/49 votes	18/116 votes
Others	3/49 votes	4/116 votes
Blanks	13/49 votes	0 votes

***Note:** since this was an open-ended question, many respondents had more than one answer, explaining why the number of votes exceeded the number of respondents (Group 8).

The results of both respondents from the field and class “indicated that the most commonly stated benefits of eating locally produced food included growing fresher and cheaper food and supporting local economic growth”. From the field questionnaire, 13 out of 49 respondents left this question blank (Group 8).

Question 6: “What are the drawbacks of eating locally produced food?”

	Field Survey	Class Survey
Lack of variety	14/52 votes	25/72 votes
More expensive than imported food	14/52 votes	14/72 votes
Seasonality limits	2/52 votes	16/72 votes
Less quantity (supply)	0 votes	6/72 votes
Less convenient	1/52 votes	2/72 votes
Inferior quality	6/52 votes	2/72 votes

Others	2/52 votes	4/72 votes
Blanks	13/52 votes	3/72 votes

The results of both respondents from the class and field indicate that the most frequently cited drawbacks in eating locally produced food are that it is more expensive than imported food (28) and that there is less food choice because of the seasonal limitations of eating local (18). From the field questionnaire, 13 out of 49 respondents left this question blank (Group 8).

Question 7: “Which do you feel is more important?”

	Field Survey	Class Survey
Distance that food has traveled	22	19
The country in which the food is produced	26	41
Blank	1	0

The results of both respondents from the class and the field indicated that 67 found that the “country in which the food is produced” is more important than the “distance that food has traveled” and 41 found the opposite to be true. More than 2/3rds of the class respondents indicated that the “distance that food has traveled” is more important, and about 1/2 of the field respondents indicated the same.

Question 8: “Would knowing a food item was produced locally encourage you to purchase it if it was the same price as an identical item produced outside the province?”

	Field Survey	Class Survey
Yes	29	57
No	6	2
Neutral	14	1

The results of both respondents from the class and the field indicated that 86 out of 109 felt that knowing that a food item was produced locally would encourage them to purchase it if it was the same price as an identical item outside of the province. From the field questionnaire, 14 out of 49 participants responded “neutral” (Group 8).

Question 9: “Would you like to see seasonal BC food items at UBC food outlets?”

	Field Survey	Class Survey
Yes	31	57
No	0	0
Neutral	18	3

The results of both respondents from the class and the field indicated that 88 out of 109 respondents would like to “see seasonal BC food items at UBC food outlets”. From the field questionnaire, 18 out of 49 participants responded “neutral” (Group 8).

Question 10: “If it were to cost more to offer locally produced foods at UBC food outlets, how much more would you be willing to pay?”

	Field survey	Class Survey
0%	20	4
1-5%	18	25
6-10%	5	23
11-15%	1	5
16-20%	1	1
price doesn't matter	4	1

The results from both the field and class questionnaires revealed that out of 109 responses, 43 participants would be willing to pay between 1-5% more for locally produced foods if necessary. From the field questionnaire, 20 respondents would *not* be willing to pay more and 29 out of 49 would be able and/or are willing to pay more for locally produced foods if necessary.

Question 11: “What are the top three factors that influence your food purchasing choices? (Please rank them in order)”*

	Field Survey	Class Survey
Price	39 / 131 votes	50 / 166 votes
Quality	35 / 131 votes	43 / 166 votes
Convenience	24 / 131 votes	35 / 166 votes
BC Grown	5 / 131 votes	14 / 166 votes
Organic	12 / 131 votes	9 / 166 votes
Fair Trade	4 / 131 votes	2 / 166 votes
In Season	6 / 131 votes	5 / 166 votes
Others	6 / 131 votes	8 / 166 votes

***Note:** 62 out of 109 respondents neglected to rank these factors in order of preference, and instead merely checked them off.

The results from both the field and class questionnaires revealed that out of 109 responses 89 chose “price”, 78 chose “quality”, and 59 chose “convenience” as criteria that influences their food purchasing choices the most (Group 8).

Question 12: “At the cost of eating fewer imported foods (like bananas), would you be willing to eat more locally produced food (like apples)?”

	Field Survey	Class Survey
Yes	18	26
No	14	13
Neutral	17	19

The results from both the field and class questionnaires revealed that 44 out of 109 participants would be willing to eat more locally produced foods at the cost of eating fewer imported foods. 36 out of 49 participants responded “neutral”. In the field questionnaire, 18 out of 49 participants indicated that they would be willing to eat more locally produced foods at the cost of eating fewer imported foods, and 17 out of 49 responded as “neutral” (Group 8).

Discussing Issues with Questionnaire Design and Process:

Questionnaire Design:

In Question 4 respondents were asked an open-ended question: *“How would you define locally produced foods?”* From the field questionnaire, a total of 18 out of 49 respondents left this question blank, or provided “totally unrelated answers to this question”. There are number of possible reasons for this poor response rate: (1) Participants had insufficient English language skills to comprehend or answer the question sufficiently; (2) participants actually did not know the answer, thus lacked sufficient knowledge about the food system; or (3) participants that left the question blank, were the same ones that voiced disdain about open-ended questions to the administrators when they were given the questionnaire (Group 8). Thus, the response rate may be improved by providing a close ended question, or providing an *informative* questionnaire that defines local foods for the respondents. Also, the use of focus groups may increase the response rate, since facilitators will have the opportunity to answer any participant’s inquiries about the meaning of the question.

In Question 5 respondents were asked an open ended question: *“What are the benefits of eating locally produced food?”* In Question 6 respondents were also asked an open ended question: *“What are the drawbacks of eating locally produced food?”* From the field questionnaire, 13 out of 49 respondents left this blank for both questions. Thus, similar to Question 4, the low response rate elicited from these questions among field participants may indicate that participants had insufficient knowledge about our food system, insufficient English skills or disdain for open-ended questions (Group 8). Interestingly, from both the results of the field and class questionnaire results are seemingly contradictory between participant responses in indicating the benefits and drawbacks in consuming local foods. For example, in question 5, 50 of the respondents indicated that the main benefits of eating local foods are that they are fresher and cheaper, conversely, in Question 6 28 of the respondents indicated that the main drawbacks of eating local foods is that they are “more expensive than imported food”. It is difficult to determine the level of contradiction between these responses, since Group 8 tabulated one of the open-ended responses for Question 5 together as “fresher *and/or* cheaper”. Thus, a closer look at the raw data is required to draw any conclusions with confidence.

In Question 7 respondents were asked a closed-ended question: *“Which do you feel is more important: The country in which the food is produced or the distance that food has traveled?”* Significant differences were found between the results of the field and class questionnaire. About ½ of the field respondents indicated that the “country in which the food is produced” is more important than the “distance that food has traveled” compared to the class where over 2/3rds indicated the same (Group 8).

In Question 8 respondents were asked a closed-ended question: *“Would knowing a food item was produced locally encourage you to purchase it if it was the same price as an identical item produced outside the province?”* In Question 9 respondents were also asked a closed-ended question: *“Would you like to see seasonal BC food items at UBC food outlets?”* Significant differences were found between the results of the field and class questionnaire for both of these questions. Specifically, from the field questionnaire 29 out of 49 indicated that they would be encouraged to purchase a local product if it was the same price as an identical item produced outside of the province, where as from the class questionnaire 57 out of 60 participants felt the same. From the field questionnaire 31 out of 49 participants indicated that they would “like to see seasonal BC food items at UBC food outlets”, where as 57 out of 60 participants from the class questionnaire indicated the same.

In Question 10 respondents were asked a closed-ended question: “*If it were to cost more to offer locally produced foods at UBC food outlets, how much more would you be willing to pay?*” Although both the class (56/60) and field (29/49) respondents indicated that they were willing to pay more for locally produced food, only 5 out of 109 of the respondents in both questionnaires thought price does not matter. Thus, based upon this result, it can be concluded “that price is still a very important determinant in people’s choices of food” (Group 8).

In Question 11 respondents were asked a closed-ended question: “*What are the top three factors that influence your food purchasing choices? (Please rank them in order)*”. However, out of the 109 respondents, 62 did not rank them and instead merely checked three boxes. This problem may have occurred because in the question the word “rank” was not placed in bold or italicized, possibly resulting in participants misunderstanding the question.

Questionnaire Administration Process:

Since the questionnaire only indicated that 9 respondents lived on campus with residences that provided food outlet services, a large segment of the UBC Food Services market was *not* well represented in the responses (Group 8).

Summary of Proposed Methodology for 2006

Target Population:

The target population should be “defined as **all UBC food outlet customers**, with the focus on the three major food providers that are involved in the UBCFSP, AMS Food and Beverage Department, UBC Food Service controlled food outlets, as well as those in the University Village” (Group 8).

Sampling Method:

A **stratified random sampling method** that is proportional to the different market segments should be used since it allows for analysis of specific trends within each stratum. This type of “sampling divides the target population into strata that are sampled in proportion to their actual numbers in the whole population” (Addison, Lee & Purewal, 2004 in Group 8). For example, students purchasing food in residence cafeterias would constitute strata for the UBC Food Services customer market, and should be reflected in a similar proportion when sampling.

Sample Size:

Group 1 from the summer 2004 AGSC 450 class demonstrated an ideal sample size of approximately 400 respondents based on the statistical formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the total population and e is the maximum error desired. This assumes a total population of approximately 46,000 and 5 percent error as well as maximum variability and a confidence level of 95 percent (Addison, Lee & Purewal, 2004).

In order to establish a sample size for the 2006 AGSC 450 class to use, the size of the target population needs to be determined by UBCFSP partners and collaborators. Thus, UBCFSP partners and collaborators need to be consulted to reach consensus on how large the target population is, and the above statistical calculation should be used to determine the ideal sample size.

Instruments of Data Collection:

The questionnaire used in the pilot study in **Appendix B** should serve as the main instrument of data collection. However, before administering Group 8's questionnaire, question 11 should be re-worded since response rates to the question were low due to poor wording within the question. Specifically, "many respondents only checked their top three preferences instead of *ranking* them". Group 8 suggests that question 11 be re-worded to the following revised version which uses "bold text to emphasize the need to rank preferences":

Place in order of importance to you the following features of a food item

(Indicate by numbering from 1-3 in order where 1 is the most important)

<input type="checkbox"/>	Organic
<input type="checkbox"/>	Price
<input type="checkbox"/>	Convenience
<input type="checkbox"/>	BC Grown
<input type="checkbox"/>	Fair Trade
<input type="checkbox"/>	Quality
<input type="checkbox"/>	In Season

This questionnaire can also serve as an interview guide for focus groups.

Methods of administration:

Group 8 proposed **3 methods of administration** to either be used separately or in conjunction with one another:

(1) The questionnaire could be used as an interview guide for oral interviewing in 15-person focus groups. Focus groups could consist of random members of the target population and be facilitated by one interviewer. "Assuming a sample size of around 400, 27 of these focus groups would need to be held", facilitated by at least 27 AGSC 450 students.

Benefits: Oral interviewing in focus groups is a personal form of communication that can often elicit more accurate and meaningful responses than in other methods of administration. Also, this method allows the facilitator to gather feedback about participant's experience about the process of the focus groups.

(2) The questionnaire could be distributed by UBC food outlet staff to randomly selected customers.

Limitation: "Having the restaurant staff administer the survey adds a great deal of complexity to the research process because all the staff will need to be educated on how to administer the survey".

(3) The questionnaire could be distributed electronically via the web, such as through student services.

Benefits: Web-based surveys are easy to tabulate and randomize.

Limitation: Web-based questionnaires can receive poor response rates.

Incentives:

To encourage participants to participate in any of the above noted methods of administration, incentives could be provided to participants such as: gift certificates to the bookstore or food outlets.

Dissolving Findings and Follow Up:

Methods of sharing findings with respondents needs to be established and should be indicated in a pamphlet to be distributed to participants upon questionnaire completion.

Likewise, since the pilot study’s results indicated that awareness about sustainability and local foods among respondents was low, upon questionnaire completion, an information pamphlet about local food and sustainability should be distributed to participants “to increase their knowledge about local foods, sustainability and the importance of eating locally” (Group 8).

Summary of Recommendations

audience	Recommendations
<p>2006 AGSC 450 Class, Teaching Team and Project Partners</p>	<ul style="list-style-type: none"> • Based upon Group 8’s three proposed methods of administration, determine the <i>best</i> administration method for the questionnaire. • Incorporate the proposed revised version of question 11(see above “Instruments of Data Collection”) in the new questionnaire prior to distribution.* • Develop information pamphlets and distribute to respondents upon questionnaire completion to inform respondents where the results of the questionnaire can be found. • Develop information pamphlets about local food and sustainability and distribute to respondents upon questionnaire completion. • Launch “a strong marketing campaign to inform the public about these issues to increase their desire, willingness and capacity to purchase local foods” (Group 8).

*I would also recommend that question 11 include a response of “fat and calorie content” or “health” as a response choice. I think this would alleviate some of the unspecified “other” responses.

Overview of 2005 Spring Scenario #2: Feasibility of Re-localization

Scenario 2a): Feasibility of Re-localization on Campus

Summary of Specific Problem Definition

UBC food providers do not possess enough information to confidently shift their current food procurement practices towards including *more* local and ideally sustainably produced foods.

Specifically, they do not know whether it is ecologically feasible (seasonal, quantity and food product availability) and/or economically feasible (affordability and quality of food products) to make this shift. They do not know what kind of benefits and drawbacks will occur if they decided to increase this shift.

General Research Question:

Analyze current food procurement practices of UBC food providers, to determine whether or not a shift towards more local and ideally sustainable produced food procurement practices is feasible.

Summary of Methodology

Based upon Group 17’s spring 2004’s proposed methodology, and Group 2’s summer 2004 feasibility analysis, Group 6 *expanded* on their work and conducted a quantitative feasibility analysis investigating the feasibility of re-localizing UBC’s food system. Group 2 (Summer 2004) found that:

- (1) “Re-localizing fresh produce at UBC is very ecologically feasible since 83% of the produce ordered by UBCFS and AMSFBS can be obtained from a local source”.
- (2) Between the period of July-October, BC has the most local produce available for purchasing, and thus these are key months where UBC Food providers could increase their local produce purchasing.
- (3) Some local commodities that are currently purchased by UBC food providers from Central Food Co and Allied Food Services can be found at lower prices at Van-Whole Produce Ltd. (Group 2).

Based upon these findings, Group 6 expanded their analysis to include researching on poultry, eggs, beef and bread products purchased by AMSFBD and UBCFS, and also attempted to expand the analysis to local *and* ideally sustainably produced foods. They also expanded the list of alternative providers previously analyzed.

Their feasibility analysis involved analyzing secondary sources (distributor product lists, UBCFS and AMSFBD purchase sheets, and BC Agricultural lists) according to availability (quantity, seasonality, local and non-local products, sustainably produced products) and accessibility (distributor price comparisons). Specifically, Group 6 examined BC Agricultural lists to determine seasonal availability of BC eggs, poultry and beef products. They also examined AMSFBD and UBCFS purchasing and/or ordering sheets to determine prices and quantity of local and non-local products purchased. Alternative food supplier order lists were examined from: United Poultry, Hallmark Poultry Processors Ltd., Kidd Bros., Hills Food Ltd., Golden Valley, Painted River Farm, and Pitt Meadows Meats Ltd. They conducted a price and availability comparison of both local and non-local products currently purchased by UBCFS from Neptune Food Services, and AMSFBD Sysco Food Service Distributors. Also, email communication and informal face-to-face and telephone interviews were conducted with representatives from AMSFBD and UBCFS.

Summary of Central Findings

1a. Chicken Products

Findings	AMSFBD	UBCFS
Kg purchased/year	1640kg chicken thighs/yr 40kg chicken boneless breasts/yr	1860kg chicken thighs/yr 960kg chicken boneless breasts/yr

		200kg whole chickens/yr
Type/Farming Practices Used	Conventionally raised	Conventionally raised
Sources	<p>(1) Sunrise Poultry Processors (chicken wings and breasts)</p> <ul style="list-style-type: none"> ▪ BC owned and operated company, located in Surrey ▪ Sells locally raised chicken products <p>(2) Export Packers (boneless skinless chicken thighs)</p> <ul style="list-style-type: none"> ▪ Ontario based company ▪ Imports and exports diverse food products (mainly animal origins) <p>(3) Reuven International (cooked diced chicken)</p> <ul style="list-style-type: none"> ▪ 100% Canadian owned corporation located in Paris, Ontario <p>(4) Olymel L.P. (breaded chicken filets)</p> <ul style="list-style-type: none"> ▪ Canadian owned and operated, facilities in Quebec, Ontario and Alberta 	<p>(1) J & K Poultry Ltd. (whole chickens, boneless skinless chicken breasts and thighs)</p> <ul style="list-style-type: none"> ▪ Local Burnaby based poultry provider
Distributor	<p>Sysco Food Service Distributors</p> <ul style="list-style-type: none"> ▪ Canadian company, BC branch in Coquitlam 	<p>Neptune Food Service</p> <ul style="list-style-type: none"> ▪ Originated in BC, owned by US corporation

1b. Alternative Poultry Suppliers

Supplier	Description	Analysis
United Poultry	<ul style="list-style-type: none"> ▪ Located in Vancouver 	Can supply desired chicken <i>quantities</i> to UBC
Hallmark Poultry Processors Ltd.	<ul style="list-style-type: none"> ▪ Located in Vancouver ▪ Purchases chicken from the Fraser Valley ▪ Offers 100% vegetable fed chicken 	Can supply desired chicken <i>quantities</i> to UBC
Kidd Bros.	<ul style="list-style-type: none"> ▪ Located in Vancouver ▪ Offers Free Run* poultry 	Can supply desired chicken <i>quantities</i> to UBC
Hills Food Ltd.	<ul style="list-style-type: none"> ▪ Located in the Lower Mainland ▪ Offers Free-Run* poultry 	Can supply desired chicken <i>quantities</i> to UBC

*(Note: “Free Run” means that the chickens were not kept in a cages and were permitted to run inside of a barn, where as “Free Range” means that the chickens were not kept in a cages and were permitted to roam outdoors; and “Organic” means that chickens are fed a certified organic diet and must also be “Free Range”).

1c. Ecological Feasibility Analysis for Chicken Products

- 100% of chicken items (whole chickens, boneless skinless chicken breasts and thighs) currently purchased by both UBC food providers can be obtained from a local source.

1d. Economic Feasibility Analysis for Chicken Products

Poultry	Price (\$/Kg)
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	UBCFS	AMS	United Poultry	Hallmark Poultry	Hills Foods	Kidd Bros.
Whole Chicken	4.22*	N/A	3.29	3.50	7.25**	4.84**
Boneless Skinless Chicken Breast	8.36*	8.43	8.89	8.95	21.95**	14.30**
Boneless Skinless Chicken Thigh	4.94*	4.59	6.99	5.95	10.75**	9.90**

* Price with approximate 10% deduction included ** free run

Based upon the price comparisons provided in the table above, the following can be concluded:

1. UBCFS could purchase whole chickens from United Poultry and Hallmark Poultry at a lower price than their current supplier, at \$ 0.93 and \$ 0.72 less per kg respectively.
2. “For \$0.62 more per Kg of whole chicken, UBCFS would be able to purchase free run whole chicken from Kidd Bros”.
3. AMSFBD could purchase locally raised chicken at United Poultry and Hallmark Poultry for \$0.46 and \$0.52 more per kg respectively.
4. It is *not* economically feasible for both AMSFBD and UBCFS to purchase free run chicken breasts and chicken thighs, *without* increasing their retail prices, because the price differences are substantial between those of their current supplier and Hills Foods and Kidd Bros.

2a. Egg Products

Findings	AMSFBD	UBCFS
Cases purchased/yr	163 cases (2445 dozens) of medium eggs/yr	489 cases (7335 dozens) of medium eggs/yr 85 cases (1275 dozen) of large eggs/yr
Type/Farming Practices Used	Conventionally raised and produced	Conventionally raised and produced
Sources	(1) Golden Valley Foods (shelled eggs) <ul style="list-style-type: none"> ▪ Located in the Lower Mainland, BC owned and operated (2) Trilogy Egg Products (liquid eggs) <ul style="list-style-type: none"> ▪ Quebec based company 	Vanderpol’s Eggs - Located in the Lower Mainland
Distributor	Sysco Food Service Distributors Canadian company, BC branch in Coquitlam	Neptune Food Service Originated in BC, owned by US corporation

2b. Alternative Egg Suppliers

Supplier	Description	Ecological Feasibility Analysis
Golden Valley	<ul style="list-style-type: none"> ▪ Located in the Lower Mainland. BC owned and operated ▪ Offers BC conventional, Free Range, and Free Run eggs (note that “they can only provide about 60% of their eggs locally due 	Can supply desired egg <i>quantities</i> to UBC

	to the avian flu although they plan to be at 100% local by November”).	
Kidd Bros.	<ul style="list-style-type: none"> ▪ Located in Vancouver ▪ Offers Free Range eggs 	Can supply desired egg <i>quantities</i> to UBC

2c. Ecological Feasibility Analysis for Eggs

- 100% of egg products (shelled and liquid eggs) currently purchased by both UBC food providers can be obtained from a local source. These egg products can also be obtained in Organic, Free Run and Free Range forms.

2d. Economic Feasibility Analysis for Eggs

Eggs	Prices (\$/dozen)				
	UBCFS	AMS	Kidd Bros.		
			Regular	Free Run	Free Range
Medium	1.75*	1.96	N/A	N/A	N/A
Large	1.94*	N/A	2.32	3.10	3.88

* Price with approximate 10% deduction included

Based upon the price comparisons provided in the table above, the following can be concluded:

- UBCFS can purchase large Free Run eggs from Kidd Bros at \$1.16 more per dozen than their large conventionally raised eggs, and AMSFBD can purchase them at \$1.18 more per dozen than their medium conventionally raised eggs.

3a. Beef and Other Products

Findings	AMSFBD	UBCFS
Kg purchased/year	N/A	3588kg beef tenderloin/yr
Type/Farming Practices Used	N/A	N/A
Sources	<ul style="list-style-type: none"> ▪ Sysco mainly purchases beef products from Alberta-based meat processors (XL Foods Ltd and Cargill Foods). 	<ul style="list-style-type: none"> ▪ “90% of beef products provided by Centennial are from Alberta, and the rest is from New Zealand and Uruguay”. ▪ Frozen veal products purchased by Centennial are obtained from Ontario and Quebec; frozen lamb products are obtained from Australia and New Zealand, fresh turkeys from Alberta, Manitoba and Ontario, and frozen pork from BC and Alberta.
Distributor	Sysco Food Service Distributors Canadian company, BC branch in Coquitlam	Centennial Food Services Richmond, BC

3b. Alternative Beef Product Suppliers

Supplier/ Producer	Description	Analysis
Painted River Farm	<ul style="list-style-type: none"> ▪ Located in the Lower Mainland. ▪ Raises SPCA Certified Cattle (humane practices and hormone free) and grass-fed cattle. ▪ Sells beef at the farm gate and as custom orders. 	N/A
Pitt Meadows Meats Ltd.	<ul style="list-style-type: none"> ▪ Located in Pitt Meadows, BC. ▪ Purchases cattle from BC auctions which have all been born and raised in BC. ▪ Sells beef to small butchers in the Lower Mainland. ▪ Beef is sold mostly in <i>un</i>processed form. ▪ Typically purchases veal and lamb from BC sources, with the exception of some lambs when local supply shortages are experienced during the year. 	<ul style="list-style-type: none"> ▪ Can supply desired beef, lamb and veal <i>quantities</i> to UBC. ▪ Can only supply beef, veal and lamb products in unprocessed forms.

3c. Ecological Feasibility Analysis for Beef and Other Products

- 100% of veal, lamb and beef products currently purchased by both UBC food providers can be obtained from a local source. However, it is *unknown* whether these products can be obtained in the desired quantity of *processed* forms that UBC food providers desire.

3d. Economic Feasibility Analysis for Beef Products

- Group 6 was unable to obtain price information from Painted River Farm or Pitt Meadows Meats Ltd.

4a. Bread Products

Findings	AMSFBD	UBCFS
Distributor	<p>(1) Canada Bread (2) PBF, and (3) Island City Bakeries</p> <ul style="list-style-type: none"> ▪ All distributors originated from outside of BC but have branches or productions in BC. 	<p>Monte Cristo Bakery</p> <ul style="list-style-type: none"> ▪ Vancouver based. ▪ Supplies UBCFS with 50 varieties of bread products.

Factors that inhibit re-localization

1. Globalization has removed many local capacities:
 - One factor that hinders the possibility for local cattle farms to supply UBC with beef products “is the unavailability of large BC meat processing plants, which implies that in order to provide UBC with different types (various cuts, ground beef, etc.) BC farmers would have to transport their cattle to Alberta for processing and transport the processed products back to sell to UBC”.
2. “Quantity is a major concern for both companies since often local suppliers are not being able to meet the large demands”.
3. “It is financially more viable for UBC to purchase from larger corporations which may provide a fixed cost when they buy large quantities from them (Yip in Group 6)”.

4. “It is more convenient for AMSFBD and UBC Food Services to purchase the necessary commodities from one place as opposed to buying specialized products from different places”.
5. “Many government laws and policies prohibit UBC Food Services and AMSFBD from purchasing local meat commodities. Meat sales are closely regulated by the government because many outbreaks and fetal complications can result due to poor handling. Therefore, the law prohibits the farmers from selling their products directly for public consumption and companies can not purchase directly from farmers (Yip). As a result, farmers must sell their meats to larger corporations so that the meat can be thoroughly inspected” (Group 6).

In sum Group 6 found that:

1. UBCFS purchases 100% locally BC produced egg products.
2. AMSFBD purchases 100% of shelled eggs from a BC source.
3. UBCFS purchase approximately 100% of poultry products from BC sources.
4. AMSFBD purchases 100% of poultry products from Canadian sources.
5. Both AMSFBD and UBCFS purchase bread from 100% local BC bakeries.
6. 100% of chicken and egg products UBC food providers’ purchases are conventionally raised.
7. “For \$0.62 more per Kg of whole chicken, UBCFS would be able to purchase free run whole chicken from Kidd Bros”.
8. The majority of beef products purchased by both UBCFS and AMSFBD distributors are from Alberta producers.
9. All frozen veal products that UBCFS purchases are from Canadian sources (Ontario and Quebec).
10. All fresh turkeys that UBCFS purchases are from Canadian sources (Alberta, Manitoba and Ontario), and frozen pork from BC and Alberta.

Summary of Recommendations

audience	Recommendations
2006 AGSC 405 Class	<ul style="list-style-type: none"> • Explore whether or not local beef producers and suppliers would be interested in meeting the large beef product demands of UBC (Teaching Team). • Investigate further potential animal product suppliers that can supply UBC food providers with affordable sustainably produced foods (for medium, large and liquid ideally Free-Range or Free – Run eggs and chicken) (author). • Investigate local beef suppliers that can supply UBC food providers with processed, locally raised beef products.
UBCFS	<ul style="list-style-type: none"> • Should “consider purchasing free-run whole chicken from Kidd Bros”.
UBCFS and AMSFBD	<ul style="list-style-type: none"> • Could consider offering Free-Run or ideally Free-Range chicken and egg products at higher retail prices, from the suppliers noted in the economic feasibility section above (author).
AMSFBD	<ul style="list-style-type: none"> • Could consider purchasing local liquid eggs from Neptune or directly from Vanderpol’s Eggs (Group 6).

Scenario 2b): Feasibility of Increasing Farm Provision of Specialty Items to UBC Sage Bistro

Summary of Specific Problem Definition

UBC Sage Bistro is interested in increasing its UBC Farm product purchases. We do not know whether the UBC Farm can *dependently* provide Sage with the specialty food product items that it highly values, nor which items the Farm is actually *able* to cultivate. Nor do we know the risks and benefits associated with expanding these market relations.

General Research Question:

Working with the General Manager of Sage Bistro, John Flipse, and the UBC Farm Program Coordinator, Mark Bomford, explore the potential for increasing business collaboration between their enterprises. Also, explore ways in which the UBC Farm can more effectively serve Sage Bistro through expanding its growing season, increasing delivery frequencies and product availability.

Summary of Methodology

- Conducted a literature review of secondary sources, including former AGSC 450 papers, UBC Farm documents, and general outside sources (Group 4).
- Held face-to face interviews with UBC Farm Program Coordinator, and with the UBC Sage Bistro Manager (Group 4).
- Communicated via email and/or telephone with the UBC Farm Program Coordinator, UBC Sage Bistro Manager, and other representatives from UBC Food Services (Group 4).

Summary of Central Findings

Sage Bistro and UBC Farm’s Role in the Food System

SAGE BISTRO	
Location	<ul style="list-style-type: none"> • Located in the University Centre on Crescent road.
Days/Hours of Operation	<ul style="list-style-type: none"> • Offers “breakfast everyday from seven fifteen till nine and has a full seating of one hundred and fifty people for lunch”. • “Open for dinner in the evenings during the summer season”. • In “the fall and winter seasons, dinner seating is limited to Thursday and Friday nights”.
Services	<ul style="list-style-type: none"> • Offers catering services. • Semi-formal fine dining restaurant offering gourmet food.
Main Product Supplier	<ul style="list-style-type: none"> • Neptune • “Purchases three to five hundred dollars a day” of food items from Neptune.
Food Sales Contributions	<ul style="list-style-type: none"> • Sage Bistro contributes approximately seven percent of total UBC Food Services food sales.

Sustainability Initiatives	<ul style="list-style-type: none"> • Participates in the UBC Biodiesel project for nearly four years, by donating their used vegetable oil. In return, they do not have to pay for their used oil disposal, which they have to do normally. • “Committed to purchasing UBC Farm produce” (Group 4).
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UBC Farm	
Location	<ul style="list-style-type: none"> • South of 16th avenue.
History	<ul style="list-style-type: none"> • Has been a “part of the UBC landscape since the university’s inauguration in 1915”. • “Agricultural research dates back to the 1950-80’s at which time agricultural research facilities moved to its current location”. • Currently, it is a “student-run farm has been operating for the last 5 years with a part-time staff being employed since 2000”.
Land Base	<ul style="list-style-type: none"> • “Of the 40 hectares of land within the borders of UBC Farm, only 8 hectares are cultivatable and of this only 3 are currently in use” (UBC Farm in Group 6).
Vision	<ul style="list-style-type: none"> • The “vision of the UBC Farm can be divided into four components: research, innovation, education and community outreach; all of which have had success and setbacks on the path toward sustainability”.
Total Budget	<ul style="list-style-type: none"> • Total annual budget: \$100,000
Financial Support Sources	<ul style="list-style-type: none"> • “Habitual financial support comes from the Faculty of Land and Food Systems, the Global Resources Program, the Sustainability Coordinator’s Disbursement Fund and Human Resources Development Canada (UBC Farm). Other support includes donations by the Agricultural Sciences Undergraduate Society (AGUS), Dean’s Research Funding and small grants from outside sources; for example, Vancity is a major contributor to the “Sharing the Harvest” project” (UBC Farm and UBC Food Co-op, 3).
Sustainability Initiatives	<ul style="list-style-type: none"> • Common practices on the Farm “include the use of composting to maintain soil fertility, manual or mechanical cultivation of weeds and the balance of insects in lieu of pesticide use” (UBC Farm FAQ). • Farm “operations are based on the standards outlined by the Certified Organic Association of British Columbia”. • Future plans include installing a “micro-irrigation system that will significantly reduce water usage”. • “Sharing the Harvest” which is a joint project between the Farm and the UBC Food Co-op, aims “to revitalize the land by introducing polycultures, to set aside habitat areas and create buffer zones. Success of this project has already been observed in the migration of birds back to the Farm” (UBC Farm and UBC Food Co-op in Group 6). • Over 5 years of continuous educational or research activity has been conducted pertaining to the Farm that has involved students in the Land Food and Community series provided by the Faculty of Land

Visions of Partnership between Sage Bistro and the UBC Farm:

- “In conversing with both John Flipse and Mark Bomford the outlook is generally optimistic about the Farm being able to provide the specialty items requested by Sage” (Group 4).

Sage Bistro’s Perspective on Increased Partnerships with the Farm:

Based upon interviews with the representatives from Sage Bistro, potential avenues of increasing business collaboration with the UBC Farm were discussed as described below:

- “Bring it to our door and we will pay you cash” (Flipse). Increasing local food procurement from the Farm is desirable for the following reasons:
 - The Farm offers unique, flavourful and premium quality produce. “According to John Flipse, the Spring Mix that Sage Bistro obtains from the UBC Farm during the summer months last much longer than other salad mixes procured from their traditional supplier”.
 - The close proximity of the Farm is convenient.
 - The Sage Bistro’s bi-monthly rotating menu (See [Appendix C](#) for a sample of Sage Bistro Lunch Menu) “includes items as “aromatic”, “mixed” or “julienne” vegetables as well as “ratouille” and “haricots verts” [which] provides a flexible and creative opportunity to incorporate UBC farm produce”.
 - Sage “chefs are a large driving force behind the need for specialty items and fresh organic produce”.
 - Procurement of local foods from Sage Bistro’s current supplier, Neptune, can be problematic. “First, specialty produce may travel a significant distance from the producer to the restaurant, affecting the quality considerably. Second, it can often be challenging to obtain certain specialty items in a reasonable time needed for the menu, and in some cases it may be impossible to acquire them at all (Flipse). While economies of scale are an advantage in upholding a contract with a large food supplier, it can at times avoid specialty items, which tend to be more costly regardless of the supplier. Therefore, there is no true advantage in procuring specialty items from a large supplier. If the cost remains slightly higher for these premium products regardless of the supplier, superior quality then becomes the priority. It would be more advantageous for Sage to obtain the specialty items from the UBC Farm. The added expense would be worth the increase in quality” (Group 4).
- Proposed visions to expand partnership:
 - “The main problem that remains is the inability of the Farm to supply Sage with a sufficient and consistent amount of produce throughout the year”. Thus, “Flipse proposes that the Farm develop their production in the form of a niche market of specialty items for Sage and restaurants alike in the area. There are an abundance of gourmet restaurants like Bishops, Feeney’s and Lumiere, as well as numerous other restaurants on 10th avenue and the UBC Point Grey area that utilize specialty items in their cuisine”.

- “Guided by principles of “sell before you sow”, Flipse proposes that the Farm find out what their key purchasers want and then grow them. Already the chefs at Sage have highlighted items on a list of specialty produce they would like to have”.
- Flipse indicated that he would “like to see the farm diversify its production by growing herbs and even perhaps edible flowers”.
- Flipse suggested that “specialty products could also be appealing to certain customers off campus, mainly in the Point Grey area. The organic customer profile is varied and includes ‘Affluent Healers’, a term used for wealthy older people interested in their health (Cunningham, 5). In his opinion, this customer profile is likely to be interested in specialty items and could possibly be key purchasers in this niche market”.
- Flipse suggested “the need to market the Farm to the public - to make it a destination and attraction. The farm could host an expanded farmers market including a variety of local vendors selling other foods items such as honey, cheeses or plants. The idea is that people who live locally would come to the Farm instead of Granville Island”.
- Finally, “with the expansion of the campus into a University Village, Flipse feels there is a lot of potential business growth for Sage and the Farm and an increased partnership between the two”(Group 4).

Analysis of UBC Farm’s Cultivation Potential of Sage’s Food Item Requests

Based upon consultations with both representatives from the UBC Farm and Sage Bistro, Group 4 coordinated the development of list of items that Sage is interested in purchasing from the Farm. They submitted this list to the Farm, who in turn determined the feasibility of supplying these items to Sage. See **Appendix C** for Group 4’s analysis of the availability for UBC Farm items that Sage Bistro is interested in purchasing.

Model for Sustainable Business Collaboration between Sage Bistro and the UBC Farm: Challenges and Solutions

Based upon research and discussions with UBC Sage Bistro and the UBC Farm, challenges and solutions for attaining a model of sustainable business collaboration between them have been explored below. This model is also intended to aid in establishing future partnerships between the UBC Farm and food providers, with those at UBC as well as with those in the surrounding Point Grey area, as a means of re-localization” (Group 4).

Attaining Economic Sustainability	
INDICATORS AND/OR CRITERION ASSESSED: WHEN ASSESSING THE SUSTAINABILITY OF THE UBC FARM AND SAGE BISTRO, THE TWO ECONOMIC INDICATORS AND/OR CRITERION OF THE TEACHING TEAM MODEL WERE TAKEN INTO ACCOUNT (IN RICHER, 2004):	
<ol style="list-style-type: none"> 1. THE PROFITABILITY OF UBC FOOD SYSTEM PROVIDERS AND PRODUCERS. 2. THE LONG TERM FINANCIAL STABILITY OF UBC FARM 	
Challenges	Solution
<p>A. Both Sage Bistro and the UBC Farm are not financially sustainable in the long term. “UBC Farm lacks long-term financial stability and profitability:</p> <ul style="list-style-type: none"> ● Currently the UBC Farm is receiving financial support from the University of 	<p>A.1 Adoption of Risk-Sharing Marketing</p> <ul style="list-style-type: none"> ● “In order to reduce the risks to the Farm (i.e. failing crops), as well as increase the chance for Sage to benefit from bumper crops, a risk-sharing marketing plan can be adopted (Bomford). This would involve Sage placing orders for produce before the crops have

<p>British Columbia (Bomford). This is essential in the short term to ensure that the Farm stay operational, but ultimately the Farm will need to be independently profitable in order to be financially secure in the future. Part of the reason it is not self-sustaining is due to the fact that they lack a solid business plan. Mark Bomford has stated that he and the others managing farm production are still somewhat inexperienced at running a large scale operation (Bomford). While the group agrees that the main purpose of the UBC Farm be educating students, we also believe that in order for it to stay in operation, it needs to be profitable. Profitability has also been hindered by transportation inefficiencies; the vehicle used for delivery of produce has certainly not been economically viable. In Mark's words, it is a "gas guzzler", which increases daily operating expenses and decreases the Farm's ability to make the numerous deliveries necessary to satisfy customers such as Sage Bistro" (Bomford in Group 4).</p> <p>"Sage Bistro, while profitable has not been operating to its full potential:</p> <ul style="list-style-type: none"> • The Bistro itself currently demonstrates a profit; however, there is significant room for expansion. At present their profitability is largely dependent on the catering division - the restaurant itself only breaks even" (Parr in Group 4). 	<p>been planted. Payment for these crops will be guaranteed to the Farm regardless of the success or failure of the crop. This will allow for advanced planning of which crops need to be cultivated without the risk of not selling what is produced, or loss of money due to crop failure (Bomford). Risk-Sharing Marketing is also beneficial to Sage Bistro in that it provides the chance for them to gain more when a crop is only particularly successful - the additional harvest will go to Sage without any extra charge (Bomford)" (Group 4).</p> <p>A.2 Enlist MBA student to devise business plan for the UBC farm</p> <ul style="list-style-type: none"> • "Working to improve the long term financial stability of UBC Farm, a concrete business plan needs to be developed to ensure the UBC Farm continues to be in operation. We suggest this initiative be conducted by an MBA student. It would be ideal if the selected student has knowledge and experience in both agriculture and business to assure a thorough and applicable business plan". <p>A.3 Seek out investors for UBC farm</p> <ul style="list-style-type: none"> • "The Farm should bring investors on board to help finance improvements and expansion to the Farm including, but not limited to a new transport van and the development of crop land. These investors could add precious dollars to the small operating budget in a sustainable fashion. The investors would also gain from the profits made and the Farm would benefit in the form of resources supplied by the investors - a mutually beneficial relationship". <p>A.4 Tap into growing customer base brought on by the expanding campus</p> <ul style="list-style-type: none"> • "As the UBC campus expands to even more of a "University Town", the new housing developments will increase the number of people that live within campus boundaries. Through the use of marketing and advertising strategies [see section A.2] these potential consumers can be accessed and therefore serve to boost the profits at Sage Bistro" (Group 4).
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<p style="text-align: center;">Attaining Ecological Sustainability</p> <p>INDICATORS AND/OR CRITERION ASSESSED: WHEN ASSESSING THE SUSTAINABILITY OF THE UBC FARM AND SAGE BISTRO, THE TWO ECOLOGICAL INDICATORS AND/OR CRITERION OF THE TEACHING TEAM MODEL WERE TAKEN INTO ACCOUNT (IN RICHER, 2004):</p> <ol style="list-style-type: none"> 1. THE DISTANCE THAT FOOD TRAVELS BETWEEN WHERE IT IS PRODUCED AND WHERE IT IS CONSUMED AND ENDS UP 2. LEVEL OF CAMPUS BIODIVERSITY, THE EFFICIENCY OF LAND, WATER AND ENERGY USE
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Challenge	Solution
<p>A. Limited ability of Sage Bistro to purchase local food items from current supplier</p> <ul style="list-style-type: none"> • “At this time Neptune provides most of the food ingredients that the restaurant uses and occasionally other suppliers are needed for certain food items. Procuring food from a large supplier may not be sustainable as the food may travel great distances from remote production areas. Packaging and transporting of these to UBC further involves the use of non-renewable resources”. 	<p>A.1 Economically and ecologically sustainable delivery of produce</p> <ul style="list-style-type: none"> • “An increase in the percent of locally produced items bought and sold by UBC food providers [such as from the UBC Farm] would decrease reliance on various forms of transport and thus increase the sustainability of the UBC food system”. • “The UBC Farm on campus occasionally provides ingredients to Sage Bistro, such as the spring salad mix and surplus vegetables not previously sold by the Farm. Sage Bistro has expressed interest in purchasing more produce from a local supplier as it is generally of higher quality and has a longer shelf-life. Unfortunately, the current delivery system of the UBC Farm involves the use of an outdated vehicle that is extremely fuel inefficient and therefore limits the ability of the Farm to transport goods to other areas on campus. There is a great need for a new economically and ecologically sound method of transport that could accommodate large volumes of produce. By having an updated transportation system, the Farm would decrease ecological footprints and increase sustainability of the UBC Food System”.
<p>B. Inability of UBC Farm to respond to produce demand</p> <p>There are many barriers that the UBC Farm faces to meet increases in demand for their products.</p> <p>(1) “Limited area of cultivatable land available to increase farm yields. Out of the eight available hectares of arable land, the Farm uses three, leaving five hectares available for expansion”.</p> <p>(2) “The suitability of potential new crops in the agricultural environment. Problems arise with regard to pests, such as wireworms that would create difficulties with crop expansions initially. Wireworm populations decline with continued cultivation; however, some crops may take years to become viable (Bomford). Some specialty crops may also be more susceptible to weeds than traditional crops in the area and are often more labour intensive”.</p>	<p>B.1. Cultivation of specialty items and organic greenhouses</p> <ul style="list-style-type: none"> • “Incorporating the use of organic greenhouses in order to expand production and grow specialty items or herbs would create more space and would be an environmentally suitable for some plants not naturally cultivated in the UBC Farm area. Any positive changes to soil health, groundwater quality or efficiency of water and energy use would increase the sustainability of the UBC food system”. • “UBC Farm should have a thorough plan and account for possible loss crops due to pests in the first two to three years”(Group 4).

Attaining Social Sustainability
<p>Indicators and/or Criterion Assessed: When assessing the sustainability of the UBC Farm and Sage Bistro, the two social indicators and/or criterion of the teaching team model were taken into account (in Richer, 2004):</p> <ol style="list-style-type: none"> 1. The perceived availability (quantity, hours of operation) and acceptability (culturally, nutritionally, and ethically) of foods 2. Level of UBC community participation in the UBC food system (community employment, volunteer activity, purchasing and general involvement)

Challenge	Solution
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A. Lack of knowledge and support of the UBC Farm and Sage Bistro

“UBC Farm lacks the community participation and awareness:

- The level of UBC involvement in the Farm is inadequate, but promising. With a long list of volunteers and employment interest, collaboration with over 30 UBC courses, and many festive efforts, such as FarmAid to increase support, the level of awareness of the Farm seems sufficient (Bomford). However, in the context of the entire UBC campus and sustained involvement, the Farm lacks consistent extensive support. Many of the courses that involve the Farm were one-time visits or projects that lasted only the term (Bomford). In addition, due to staffing constraints, the Farm is not in operation during the fall season until April (Bomford). Furthermore, the involvement of the UBC community in purchasing and selling farm products is low. The Farm often has difficulty generating interest and traffic to the market, and only a few UBC vendors, such as Sage Bistro and Sprouts make purchases. On the other hand, although the number of farm staff is low, community employment is high. The Farm believes in providing employment for UBC students at fair wages, which creates a social-economic context” (Bomford in Group 4).

Lack of awareness of Sage Bistro among the off-campus population:

- “The level of UBC participation in Sage Bistro is quite high with sufficient campus awareness. Sage, a part of UBC food services, is well supported by the campus. John Flipse has expressed a desire in improving the profile of Sage’s catering department to attract off campus business, which can add to word-of-mouth advertising for the restaurant” (Flipse in Group 4).

A.1- Integration of UBC Courses, the Farm, and Business

- “There needs to be an increased awareness and knowledge of the UBC Farm in order for the UBC community to provide more support. Academic courses are a great way to not only reach a large number of students, but also to familiarize them with the Farm and provide hands-on experience. Although the Farm has been integrated into over 30 courses, most do not provide hands-on practical experience that can develop into long-term action. Also, business should be integrated into the courses within Agricultural Sciences (AGSC), ideally those that deal with the Farm directly in developing a business plan. Collaboration between the Farm and a commerce class is currently in progress, which is a promising first step. A more extensive approach to incorporate the Farm into AGSC courses would be to have a group of students work on the farm throughout the term or school year, which will help solve some of the Farm’s staffing issues. For example, students in an AGSC course can be given the option to work on the Farm throughout the year in lieu of writing the final exam”.

A.2- Marketing and Advertisement

- “Individually and collaboratively, both the UBC Farm and Sage Bistro can enhance their marketing and advertising. Collaboratively, Sage and the Farm can have a mutual advertisement agreement where Sage will advertise the use of farm produce, while the Farm advertises that their produce can be found at Sage. This can be advertised through flyers, emails, websites, and Sage’s menu.
- The Farm’s current method of promotion is through email, a website, print media, and working with courses on campus (Bomford). To increase awareness of produce from the Farm sold on campus they could display stickers that say “UBC Grown” or “UBC Organic”. This way the UBC community will realize that produce grown on the farm is being sold on campus, and perhaps create a sense of pride and loyalty. Moreover, research or graduate work can be promoted to the UBC community, and not just AGSC to increase the educational component of the Farm.
- If Sage Bistro was looking to increase business, perhaps to expand their seating at breakfast or dinner, advertisement efforts should be targeted at students and the general public. Sage could advertise and provide an incentive to eat at the bistro by offering coupons in the UBC Agenda or the Ubysey. In attracting off-campus business, Sage could work with

	<p>attracting off campus business, Sage could work with the Chan Centre to coordinate event days and provide discounted meals with each purchased event ticket. Perhaps a combination of a dinner and a show can be developed between Sage and the Chan Centre. With this collaboration, the Chan Centre can advertise Sage as a good “after-show” place to eat that serves fresh produce from the UBC Farm. Furthermore, if Sage wishes to reach a wider public, it can advertise in local newspapers such as the Georgia Strait”.</p> <p>A.3- Community Market</p> <ul style="list-style-type: none"> • “To increase awareness and business at the Saturday markets, the Farm could expand the market to include local grocers and producers, and have a Community Market. Local grocers and producers would sell their products on the Farm to provide a more extensive market that offers a variety of foods ranging from produce to cheese, and from wine to breads. The UBC community, local residents, and the wider public can visit the Farm and purchase the majority of their groceries at one location. This would decrease the traveling distance for groceries of UBC and local residents, increase awareness of the Farm, generate traffic and revenue, and create a sense of local, community cohesion”. <p>A.4- Fresh from the Farm</p> <ul style="list-style-type: none"> • “A community celebration of food event held at the UBC Farm could increase the awareness of the Farm and help advertise local restaurants, while bringing the community together. Sage Bistro and local restaurants can present demonstrations of dishes or delicacies produced using fresh local organic food and produce from the Farm. As each restaurant displays their creativity, people can sample wine, taste the food, and purchase fresh produce from the Farm. To generate revenue on top of ticket sales, the Farm could charge local restaurants a small fee for participating and using the locale. As a result, awareness of the Farm and Sage would heighten, revenue from sales and fees will be generated for the Farm, and a sense of community involvement will be established” (Group 4).
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Summary of Recommendations

audience	Recommendations
<p>UBC Farm & UBC Sage Bistro</p>	<p>Business:</p> <ul style="list-style-type: none"> ▪ A written contract proposal should be composed that outlines a business arrangement that is mutually symbiotic between the 2 stakeholders, it should include: <ul style="list-style-type: none"> ○ A list of desirable products that can be grown on the UBC Farm that Sage would like to purchase ○ A set of common product prices ○ A method of delivery transport that is cost-effective, efficient and sustainable

	<ul style="list-style-type: none"> ○ A list of risk-sharing potentials <p>Marketing and Advertising:</p> <ul style="list-style-type: none"> ▪ An effort should be made to increase marketing and advertisement for both enterprises. This can include: <ul style="list-style-type: none"> ○ Advertising in UBC newspapers and publications, creating flyers and posters, and generating emails through faculties and student services ○ Advertisements could also be targeted towards citizens who reside and work outside of campus (Group 4).
<p>2006 AGSC 450 Students & UBC Farm</p>	<ul style="list-style-type: none"> ▪ Investigate strategies to increase awareness and support for both Sage and the UBC Farm <p>Expansion and Financial Stability:</p> <ul style="list-style-type: none"> ▪ Investigate ways that the UBC Farm can expand its market to other campus food outlets, such as those in the Student Union Building, The Barn, etc. ▪ Assess the degree to which other campus food outlets would be willing to purchase products from the Farm ▪ Assess the degree to which food outlets off-campus would be willing to purchase products from the Farm, particularly those in the West Point Grey and Kitsilano communities who serve specialty items, and may be willing to purchase crops in advance. ▪ Investigate ways the Farm can increase economic support, such as through exploring potential donors and investors for the Farm ▪ Further build upon our list of food items that Sage is interested in purchasing that can be grown on the UBC Farm (see Appendix C)(Group 4).

Scenario 2c): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

Summary of Specific Problem Definition

The Community Food Security Coalition (CFSC) has approached the AMS Food and Beverage Department (AMSFBD) to cater a conference which they wish to hold at UBC with locally produced foods⁷. But, the General Manager of AMSFBD, Nancy Toogood, does not know what exactly is required to host such an endeavor, such as catering requirements, cost, seasonal availability of desired local foods, etc.

General Research Question:

Working with Nancy Toogood (AMSFBD), UBC Farm staff and local food brokers, determine the catering requirements for 600-800 people in the eventuality that a conference is held at UBC requesting local foods. You will need to design menus, estimate required food quantities, establish growing plans, and indicate the financial feasibility (from both the grower’s and purchaser’s perspective).

⁷ About two weeks into the case, the AMSFBD was informed that the CFSC would not be holding their conference at UBC due to a lack of space availability in September. Yet, Nancy Toogood decided that the groups working on the scenario should still continue their work in planning for a local foods conference, but to tailor it towards holding future conferences. Thus, if AMSFBD is approached by any other interested clients for a catering event supplied with local foods, they would be ready to fulfill these requirements.

Summary of Methodology

- Conducted a literature review of secondary sources including former AGSC 450 student work (work pertaining to the feasibility of using local distributors to supply campus food providers) (Group 11).
- Face-to-face, telephone and email communication was held with the AMSFBD Manager, Nancy Toogood, UBC Farm Program Coordinator, Mark Bomford and the UBC Farm Production Manager, Greg Rekken (Group 11).
- One Group member met with Mark Bomford, the UBC Farm Program Coordinator, on behalf of *all* groups assigned to the scenario to determine which of the 2 options for holding the conference (August or October) would be better from the Farm's perspective (Group 11). August ended up being chosen as the month for all groups to plan the conference for, because Mark indicated that in August there is a greater variety of products, and prices are generally lower because yield per acre is six to eight times higher than in October", and he thought this would apply to other distributors as well (Group 11).
- Telephone and email communication was conducted with the representatives from the following brokers, producers and distributors: *Discovery Organics, Pro Organics, Hills Foods Ltd., Sysco Vancouver, Atlas Wine Merchants, Lower Mainland Vegetable Distributors, Fraser Valley Growers Association*, and the UBC Farm (Group 11).
- *Canada's Food Guide to Healthy Eating* was used to ensure that each proposed conference meal "contained at least three of the four food groups" (Group 11).
- Recipes were selected through conducting an internet search and the *Food Network Canada* website was primarily used to select recipes and if desired recipes were not available at this site other we sites were researched (Group 11).
- The following local distributors were contacted: "Pro-Organics, Lower Mainland Vegetable Distributors, Hills Food Ltd., Sysco Vancouver, Atlas Wine Merchants, Island Farms, Olympic Dairy, and Anita's Organic Grain and Flour. Due to time constraints, replies were received from only four of the distributors originally contacted: Discovery Organics, Lower Mainland Vegetable Distributors, Sysco Vancouver, and Anita's Organic Grain and Flour" (Group 16).

Summary of Central Findings

A total of 3 groups worked on this scenario. While groups did share some information, they each produced different, or competing if you wish, materials for the food conference. I decided to summarize each groups proposed food conference materials separately below. I found that each of the group's materials were quite different in content, budgets, menus, and food sources, and in how they reported their findings. I also found discrepancies between the groups in their reported budget allowance, what expenses they included in their total expected budget, number of meals planned and the number of days the conference would be held. Please note that I found Group 11's to be significantly more detailed, clear and organized than the other groups. So, I tried to present my summarizing and integrating of Group 15 and 16's work as clear as possible, but I could only do so much considering there were many missing crucial details in their work. These issues led me to conclude that each group's report needed to be reported separately to enhance the reader's ability to comprehend each proposal holistically.

Group 11: Findings

Conference Budget Allowance:

- AMSFBD Manager, Nancy Toogood was contacted to determine the conference budget (Group 11). According to Nancy Toogood, AMSFBD would allot “\$50.00 per person per day, and that food expenses could be estimated at 30-35% of the \$50.00” (Group 11).

Budget Proposal:

Total expected number of clients: 750
Total estimated conference food budget: \$22, 500
Daily Total Conference Food Budget: \$11,250, per day
Food Expenses Per person: 30% at \$15.00 per person per day
Number of meals included: Friday night reception: wine and cheese; and 1 Saturday: breakfast, snack, lunch, and dinner (Group 11).

Detailed Breakdown of Food costs by Item, meal and person: See **Appendix D**
Breakdown of costs per meal and person: See **Table 1** below

Table 1

Day	Breakfast	Snacks	Lunch	Dinner (including dessert)	Beverages	Total Cost	Saving
Friday Night Reception	–	Total cost of cheese: \$8,209.50	–	–	Total cost of wine: \$2,786.04	\$14.91/per person \$8,209.50/total food cost	\$0.07/per person
Saturday	\$798.69/total meal \$1.60/per person	\$307.47/total snacks \$0.41/per person	\$1537.34/total meal \$2.05/per person	\$2,791.52/total meal \$3.72/per person	\$3,345.38/total beverages \$4.46/per person	\$11.77/per person \$8,829.00/total food cost	\$3.23/per person

Choice of Distributors:

The following distributors were selected to serve as the main food providers for the conference:

1. UBC Farm
2. Discovery Organics
3. Lower Mainland Vegetable Distributors:
 - Through the Fraser Valley Growers Association, the Lower Mainland Vegetable Distributors were chosen because it was felt that this amalgamated distributor would be easier to deal with than with many selective smaller distributors (Group 11).

Choice of Menu Themes and Main Products:

Conference Theme:

- “Land, Food, and Community – Eat BC”, was proposed to serve as the overarching conference theme “to demonstrate the feasibility of producing, supplying, and eating locally” (Group 11).

Menu Themes:

- “Healthy Farm, Healthy Students with some Local West Coast Flare” was proposed to serve as the uniting recipe theme for the food conference menu (Group 11).

Rationale:

- “Healthy Students” ended up becoming a main theme for the menus because of influences by a number of the group members whose studies focus on nutrition. *Canada’s Food Guide to Healthy Eating* was used as guide to ensure that at least three of the four food groups were used in each meal.
- “Healthy Farm” was chosen as a main theme because the food products from the Farm are high quality and fresh (Group 11).
- “Local West Coast Flare” was chosen as the other main menu theme, because local foods, such as from the UBC farm play a “unique role to play in making UBC a dynamic and innovative venue for a local food conference” (Group 11).

Recipe Selection:

Recipe selection was accomplished by conducting an internet search. If no suitable recipes were found from the *Food Network Canada* website, other websites were searched (Group 11).

The following criteria were used to select recipes:

- Recipes that were healthy and featured available local foods
- Recipes that could be considered as “gourmet-type”
- Recipes that could be used for creating ‘farm-specific’ recipes that would enable chefs to use only featured produce from the farm
- An appropriate number of recipes that would ensure at least one vegetarian option at each meal
- Recipes that would “enhance the freshness and flavour of local foods” (Group 11).

The items below were chosen as the main features for the conference recipes. For a complete list of recipes and meals please see **Appendix D**.

Friday night reception:

Snacks and Beverages: Wine and cheese

- “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 Mozzarella*. 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” (Group 11).

Saturday:

Breakfast:

- Both hot and a cold breakfast options were selected: “waffles with blueberry sauce as the hot option and fruit with granola and yogurt as the cold option” (Group 11).

Snacks:

- Two types of muffins were selected: “apple cinnamon and carrot zucchini to accentuate the availability of local apples, carrots, and zucchini in August” (Group 11).

Lunch:

- Two types of wraps were selected: “The vegetarian option is 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” (Group 11).

Dinner:

- Dinner was planned to serve “as 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” (Group 11).

Recipe Item Quantity Predictions:

- Recipes were modified adequately to feed 750 people. A survey was conducted with the 7 group members to determine their expected food quantities for the food conference events. It was felt that the “group was a sample of seven diverse people” and thus would provide representative desired food amounts to determine required quantities and associated costs (Group 11).
- See **Appendix D** for specific quantity predictions for each recipe (Group 11).

Recipe Costing:

The costs to produce each of the recipes were determined in the following ways indicated below. See **Appendix D** for detailed cost breakdown for each recipe ingredient.

1. Foods from the Farm were priced first based upon communication with the Farm Team.
2. Local BC foods that were deemed the most affordable from other distributors were priced.
3. If desired BC products were not available from distributors, “we supported good agricultural practices by pricing organic products from a local distributor”.
4. “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 [economic] feasibility, that these products (from *Sysco* and *Save-on Foods*) would be provided by the local distributors we identified (E.g. *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”.

5. The *United States Department of Agriculture National Nutrient Database* for Standard Reference was used to serve as a database that would give weights for all ingredients used in our recipes because “we needed to know the poundage (in kilograms) of various ingredients” (Group 11).

Choice of Farm Products:

A selection of UBC Farm products including: salad mix, beets, carrots, ground cherries and squash were chosen for conference items for the following reasons:

1. Upon consultation with Nancy Toogood, she requested that in our menu planning that the “UBC Farm’s role should be highlighted by planning dishes that featured Farm products, without augmentation by other sources”, a selection of UBC Farm salad mix, beets, carrots, ground cherries and squash were chosen. It was felt that choosing these particular items would help “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” (Group 11).

2. Upon consultation with Mark Bomford, he “felt it would be wise to focus on those that they can produce consistently and reliably...[because] many UBC Farm crops are still problematic, and the staff is still learning about production challenges associated with small-scale organic production” (Group 11). Thus, the Farm items that were 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)” (Group 11).

Production Plans for Required UBC Farm Products:

Quantity Requirements:

The following quantities of Farm items are required for the conference:

- 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) (Group 11).

Growing Plan Calculations:

Using data from the *USDA Nutrient Database* and Eliot Coleman’s book *The New Organic Farmer*, calculations for growing plans were established. Reliable data was found to perform calculations for each item except for ground cherries, thus the group’s estimations need to be confirmed for this item. See **Appendix D** for full details on calculation methods and results. Coleman’s growing plan methods were used because it was felt that the author’s “use of growing plans based on plant and row spacing reflects the Farm’s position as a small, mixed production, organic enterprise” (Group 11). Below are the calculation results for the total land required to produce the food quantities described above.

Total area required (excluding ground cherries): approximately 6098 square feet (30 standard beds)⁸.

Total area required for ground cherries: As a high estimate, we added 1362 (7 standard beds) square feet for ground cherries

Total area required for all items: approximately 7460 square feet (37 standard beds) (Group 11).

Please note that “these calculations are subject to variation depending on climate, the resources of the Farm, and many other variables” (Group 11).

Conclusion: It is expected that this production plan will be “feasible for the Farm to produce the amount required by the contract in the land they currently have under production [3 hectares]. 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” (Group 11).

Additional Funding Sources:

In an effort to offset any additional costs of hosting the local food event, Nancy Toogood suggested that methods of attaining additional sponsorship be explored. Below is a list of potential sponsors for the AMSFBD local foods conference, as well as a Sponsorship Letter that could be used to gain support from local companies and organizations can be found in **Appendix D** (Group 11). Potential sponsors were chosen from selection of enterprises that attended the Faculty of Agricultural Sciences career fair in February 2005, in which it was felt that interest in supporting the food conference would likely be demonstrated (Group 11).

List of Potential Sponsors:

- *BC Dairy Foundation*
- *Nature's Path Foods*
- *BC Food Protection Association*
- *BC Fruit Growers' Association*
- *BC Greenhouse Growers' Association*
- *BC Salmon Farmers Association*
- *Certified Organic Association of BC* (Group 11).

⁸ UBC Farm uses a standard bed size of 4 feet by 50 feet (200 square feet)(Rekken, April 4, 2005)

Group 15: Findings

Conference Budget Allowance:

Budget Proposal:

Total expected number of clients:	750
Total proposed conference food budget:	\$13,312.50 CAN
Food and Preparation Expenses Per person:	\$17.75 CAN per person
Number of meals included:	Saturday: Breakfast, lunch, dinner and snacks
Detailed Food costs:	See Appendix D

Total Budget per Person per Day: \$ 17.75	
Snacks	\$ 1.50
Breakfast	\$ 3.00
Lunch	\$ 4.25
Dinner	\$ 9.00
Total	\$ 17.75

Choice of Distributors:

An effort was made to select distributors based upon the following criteria: ability to provide large food product quantities, provide a wide array of local BC products, and a showed a focus on food sustainability (Group 15). The following distributors were selected to serve as the main food providers for the conference:

1. Discovery Organics
 - Nancy Toogood suggested the use of Discovery Organics, and in turn, it was chosen to serve as the main supplier of required food products. Discovery Organics was also chosen because it “has a good reputation; a wide variety of products... and ninety-three food trucks traveling across the border every minute (Moss, Annie, March 21st, 2005 in Group 15).
2. Hills Food
 - Offers “organic and specialty meat products”, and is thus an ideal supplier to fulfill these item requirements for the conference (Group 15).
3. Sysco Vancouver
 - Sysco was chosen to act as a distributor for those items that the group was unable to find from Discovery Organics, Hills Food or the UBC Farm. Since AMSFBD already holds a contract with Sysco, all they need to do is expand their current purchases (Group 15).
4. UBC Farm

Choice of Menu Themes:

Conference Theme: A conference theme that was decided upon by the group was “Fresh is Best”. It was felt that this theme would represent “the quality, taste and ease of use that can be met through the local food system” (Group 15). “Each meal will be presented as a buffet to better serve the large

number of guests attending, and to provide an attractive display of locally grown and prepared foods” (Group 15).

Recipe Selection:

Recipes were selected for “functionality in regards to its locally supplied ingredients, the preparation time, cost, and finally, the nutritional quality”. The level of nutritional quality for recipes was determined using the general nutritional guidelines set forth by Health Canada, who also takes into account Canada’s Food Guide to Healthy Eating. Recipes were also chosen for cooking and preparation that was believed to be minimal (Group 15). For a complete list of menu recipes and meals please see **Appendix D**.

Recipe Costing:

The costs to produce each of the recipes were determined in the following ways indicated below. See **Appendix D** for a cost breakdown for each recipe ingredient.

1. Distributor product price lists were used to obtain prices for 64 out of 86 required recipe ingredients.
2. For products or prices which were not available from the above four selected distributors, retail prices for 22 out of 86 required recipe ingredients were surveyed from Superstore, a Vancouver retail grocery store. Most of these products constituted dairy products or food seasonings (Group 15).

Choice of Farm Products:

A selection of 3 UBC Farm products including: carrots, garlic and onions were chosen for conference items for the following reasons:

1. “Growing carrots and onions together as described by Coleman (1989) can increase productivity and labor. Garlic can be grown in the same space as the carrots based on how many are needed”.
2. Producing these 3 items will “best utilize the farm space and minimize production costs” (Group 15).

Production Plans for Required UBC Farm Products:

Growing Plan Calculations and Quantity Requirements:

See **Appendix D** for proposed production plan design, specific quantities, and associated cost and space estimates.

Menu Analysis for Percentage of Local and Semi-Local Foods:

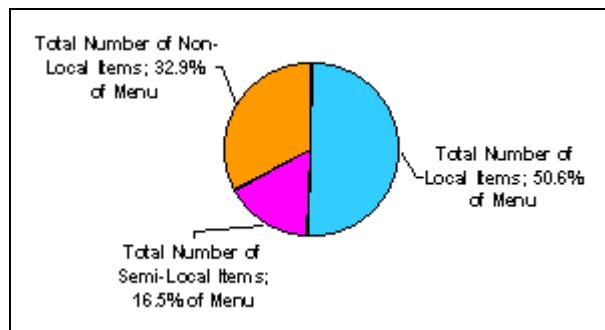
“Local” was divided into the following categories:

- (1) Local: those food products that are grown and purchased within British Columbia;
- (2) Semi-Local: food products processed in BC with ingredients produced outside of British Columbia;
- (3) Non-Local: food products that are globally produced (Group 15).

Food groups that were represented in the proposed conference menu were analyzed to determine the extent to which they are local, semi-local or non-local. In the table below, the “percentages of “local” success from our chosen food menu ingredients by calculating the *number of items* obtained locally, semi-locally, and non-locally” are described (Group 15). Overall, “43 of the 86 ingredients were locally grown and produced” (Group 15).

Vegetables		Semi-Local	-----
Local	90.5%	Non-Local	70%
Semi-Local	-----	Grain Products	
Non-Local	9.5%	Local	16.7%
Fruit		Semi-Local	50%
Local	100%	Non-Local	33.3%
Semi-Local	-----	Other	
Non-Local	-----	Local	21.4%
Meat & Meat Alternatives		Semi-Local	28.6%
Local	87.5%	Non-Local	50%
Semi-Local	-----	Total Products	
Non-Local	12.5%	Local	50.6%
Milk Products		Semi-Local	16.5%
Local	30%	Non-Local	32.9%

In the diagram below, “the percentages of local, semi-local, and non-local food items” for the conference menu are represented (Group 15). Overall, “50.6% of the menu items are locally produced, 16.5% are semi-locally produced, and 32.9% are globally produced”. If the local and semi-local products are combined, it gives us a value of 67% (Group 15).



(Group 15)

Estimated percentage of money that menu items would recycle back into the local, semi-local, and global food economies:

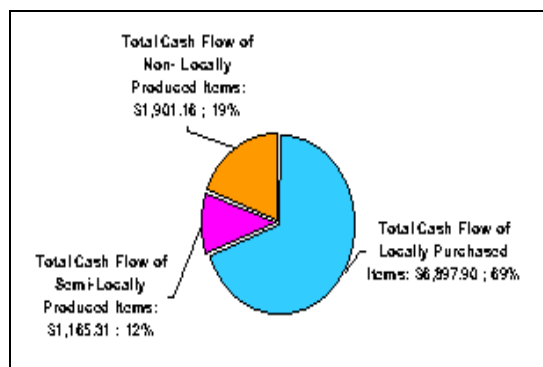
In the table below, a Cash Flow analysis is depicted “to examine the “local” success from our chosen food menu ingredients is shown by calculating the *Cost of items* obtained locally, semi-locally, and non-locally. The percentages of money coming from the local, non-local, and semi-local sectors in each category are shown next to the dollar value”. Overall, it was “determined that \$6897.90 would

be directly recycled into the local BC food system using our menus and distributors, as well as a large portion of the \$1165.31 from the semi-locally produced food items”. Please note that the “onions, garlic, and carrots from the UBC Farm were omitted in this analysis, as well as the two items [raspberries and ricotta cheese] for which we could not obtain any price estimation” (Group 15).

Vegetables		Semi-Local	-----
Local	\$1759.6 (95.5%)	Non-Local	\$492.14 (61%)
Semi-Local	-----	Grain Products	
Non-Local	\$82.84 (4.5%)	Local	\$4.80 (0.4%)
Fruit		Semi-Local	\$849.14 (77.2%)
Local	\$1837.80 (100%)	Non-Local	\$246.11 (22.4%)
Semi-Local	-----	Other	
Non-Local	-----	Local	\$999.56 (42.3%)
Meat & Meat Alternatives		Semi-Local	\$316.17 (13.4%)
Local	\$1981.37 (98%)	Non-Local	\$1046.32 (44.3%)
Semi-Local	-----	Total Products	
Non-Local	\$33.75 (1.7%)	Local	\$6897.90 (69.2%)
Milk Products		Semi-Local	\$1165.31 (11.7%)
Local	\$314.75 (39%)	Non-Local	\$1901.16 (19.1%)

(Group 15)

In the diagram below, “the total amount and percentage in the menu budget that is being spent on foods produced locally, semi-locally, and non-locally” is described (Group 15). “Approximately 69% of the total money spent for items in our proposed menu are locally produced foods. 11.7% of the total menu cost is semi-locally supplied, and another 19% is non-locally supplied” (Group 15).



(Group 15)

Additional Funding Sources:

Below is a list of potential sponsors for the AMSFBD local foods conference, as well as a Sponsorship Letter that could be used to gain support from local companies and organizations can be found in **Appendix D** (Group 15). Also see **Appendix D** for individual tent cards that the group developed to be placed on each conference table, in conjunction with advertisement banners and brochures (Group 15). The potential sponsors that were selected consisted of enterprises that the

group felt might be interested in supporting a local food conference event. The group felt that “not only will the use of sponsors decrease conference costs for AMSFBD; it will also provide an opportunity for local food companies or farming corporations to advertise to an agriculturally-influential crowd” (Group 15).

Potential Sponsors:

- *BC Dairy Foundation*
- *BC food protection Association*
- *BC fruit growers' association*
- *BC greenhouse growers' association*
- *BC Hot House*
- *BC salmon farmers association*
- *Capers*
- *Happy Planet*
- *Nature's Path foods*
- *The Certified organic association of BC* (Group 15).

Group 16: Findings

Conference Budget Allowance:

- Based upon communication with Nancy Toogood, “an approximate budget of \$15 U.S. per person was allocated to food purchasing (personal communication, Nancy Toogood, March 7, 2005). With the current exchange rate of approximately 1.20 and an estimated 750 attendees, the total budget of the conference is \$13,554.22 CAD” (Group 16).

Budget Proposal:

<u>Total expected number of clients:</u>	750
<u>Total estimated conference food budget:</u>	\$8,343.31 ⁹
<u>Number of meals included:</u>	Saturday: breakfast, snack, lunch and dinner
<u>Total Surplus:</u>	\$5,210.91
<u>Detailed Food Costs:</u>	See <u>Appendix D</u>

Choice of Distributors:

An effort was made to select distributors based upon the following criteria: provided food that is both locally and organically grown, demonstrated a strong awareness of sustainability issues, and provided products at affordable prices, ability to provide sufficient product quantities, and ability to meet the frequent delivery requirements of the AMSFBD (Group 16). The following distributors were selected to serve as the main food providers for the conference:

1. UBC Farm

⁹ According to the group, “the labour costs associated with preparing and serving this meal are greater than the cost of the food itself” (Group 16). Thus, it does not appear that the group included labour costs within their total budget.

2. Discovery Organics
3. Lower Mainland Vegetable Distributors
4. Sysco Vancouver
5. Large national supplier¹⁰ (Miscellaneous)
 - “Smaller items and hidden ingredients such as salad dressings and condiments were not offered by the [first 4] distributors but were still required. It is these smaller items that were often not feasible to obtain locally and had to be purchased from large national suppliers” (Group 16).

Choice of Menu Themes:

Menu Themes:

- The theme for the menu is intended to be one that captures the “summer lifestyle of the west coast” and local BC foods (Group 16).

Recipe Selection:

The following criteria were used to select recipes:

- Recipes that contain locally grown food products
- Recipes that reflected the “summer lifestyle of the west coast”
- Recipes that contained alternatives to red meat, such as Native west coast salmon “in an effort to both promote the B.C. salmon fishing industry and to cater to the growing number of individuals omitting red meat from their diets” (Group 16).

For a complete list of recipes and meals please see **Appendix D**.

Limitations of Menu Recipe Selection:

- “Wine was not budgeted into the cost of the conference because it was initially believed to not be financially feasible despite the feelings of the group that it was essential. However, with the surplus budget, wine could be supplied free with dinner and future students would not have a problem contacting and purchasing wine from a local vineyard” (Group 16).

Recipe Item Quantity Predictions:

- Ingredient quantities required for menu recipes “calculated through simple scaling methods. Unit conversions were done by multiplying the original unit by the weight to volume ratio for that specific ingredient obtained from the USDA National Nutrient Database for Standard Reference” (Group 16). See **Appendix D** for menu items and ingredient quantity predictions.

Recipe Costing:

The costs to produce each of the recipes were determined in the following ways indicated below. See **Appendix D** for cost breakdown for each recipe ingredient.

- Examining price lists of desired food product distributors (Group 16).

¹⁰ Please note that this group neglected to indicate the actual name of this supplier.

- For items which could not be obtained from the selected distributors (Sysco, Lower Mainland Vegetable Distributors, and Discovery Organics) for the menu, items were found and prices were “calculated from a miscellaneous food supplier”, and a 30% discount was applied “to estimate the wholesale cost as suggested by the AMSFBD” off its retail price” (Group 16).

Role of the UBC Farm:

- Ideally the conference menu should “showcase fresh, locally grown produce from the UBC farm....[but] after communicating with the Farm, it was learned that a limited number of items could be provided to us in the quantities required for this dining occasion: squash, carrots, beets, ground cherry and salad greens (personal communication, Mark Bomford, March 17, 2005 in Group 16). While the group included these items in their menu, they did *not* propose required growing plans. However, they did propose that a contract “be secured by AMS Catering with the UBC Farm before the growing season begins to assure a set amount of food for the conference, including items, quantities, growing plans and staffing requirements” (Group 16). This proposal is based upon a proposed contract between campus food providers and Agora that was developed by Group 15 in spring 2004 (See **Appendix D**).

Additional Funding Sources:

Below is a list of potential sponsors for the AMSFBD local foods conference, as well as a Sponsorship Letter that could be used to gain support from local companies and organizations can be found in **Appendix D** (Group 16). Potential sponsors were chosen from selection of “small local businesses to large companies and organizations with their roots in the Lower Mainland” (Group 16).

- *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*
- *Meinhardt Fine Foods Inc*
- *Capers Community Market*
- *Farm Folk/ City Folk*
- *Happy Planet*
- *Hills Foods Ltd.*
- *Natural Factors*
- *Organika*
- *SISU*
- *Yves Veggie Cuisine* (Group 16).

Anticipated Benefits for the AMSFBD:

- AMSFBD will benefit from hosting a local foods conference because by buying local foods they will avoid paying for the hidden costs associated with buying non-local foods, such as those hidden costs associated with “more packaging, not to mention refrigeration and a greater

consumption of fuel by the trucks that transport them, resulting in a large amount of waste and pollution” (Group 15).

Anticipated Benefits for the UBC Farm:

- If a contractual agreement is formed between the UBC Farm and AMSFBD, it can serve the Farm both as “a model for Community Supported Agriculture and institutional support of local food providers” (Group 11).
- If a contractual agreement is signed between the UBC Farm and AMSFBD, it can serve to increase the economic sustainability of the Farm which will help in making a case for its continued existence (Group 16).
- The conference will provide the Farm with the opportunity to enhance its exposure and to gain additional support. It could do this by using the conference to “educate and inform the attendees of its mission and its significance at the university, as many will be unaware of the uniqueness of the Farm” (Group 16).

Anticipated Benefits for Conference Delegates:

- 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” (Group 11).
- The UBC “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” (Group 11).
- The experience of delegates would be further enhanced by a “visit to the UBC Farm during the conference, as well as the inclusion of speakers from the Farm” (Group 11).

Summary of Recommendations

audience	Recommendations
<p>AMSFBD or AGSC 450 Class or Team</p>	<p>Remaining Tasks, Future Needs:</p> <ul style="list-style-type: none"> • “Further investigate local distributors to increase [menu] options” (Group 11). • “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” (Group 11). • “Refine the growing plans with the UBC Farm to maximize the benefit of the contract” (Group 11). • “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” (Group 11).
<p>AMSFBD</p>	<ul style="list-style-type: none"> • A number of challenges emerged when trying to contact and get information from distributors: (1) often distributors “did not take us seriously because we are students and because this is a hypothetical conference”, and (2) “many distributors chose to keep their information confidential” (Group 11). We feel that if similar

	<p>scenarios are offered in the future, or if AMSFBD decides to hire someone to work on this scenario the following suggestions would help address these challenges:</p> <ol style="list-style-type: none"> 1. AMSFBD “could provide 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”; 2. AMSFBD could create and make available information on distributors, such as in a database, where distributors’ products, prices, contact information, etc., are provided. 3. AMSFBD could provide a sample menu for prospective suppliers (Group 11).
<p>AMSFBD and UBC Farm Team</p>	<ul style="list-style-type: none"> • In order for the UBC Farm to provide desired food quantities for the conference, “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” (Group 11).
<p>2006 AGSC 450 Class</p>	<ul style="list-style-type: none"> • Should “conduct an analysis of the Farm that includes but is not limited to the most economically efficient crops that can be grown, the most-desired crops by purchasers, the effectiveness of awareness campaigns and the labor problems associated with a student-driven agriculture operation. Such an analysis may not be needed after the completion of other projects this year, so consult with other findings before conducting further research” (Group 16). • Before groups begin addressing their specific tasks, they should “create a timeline to outline when they will have certain tasks completed” (Group 11). • Before groups begin addressing their specific tasks, they should “go through a three-step process, where a model is created, evaluated and then reworked” to enhance the efficiency in tackling complex scenarios (Group 11). • If this scenario or a similar one is offered again, groups should first try to get distributor information to plan the menus, which will enable one to then “develop growing plans and to determine the feasibility of re-localization” (Group 11).
<p>AGSC 450 Teaching Team</p>	<ul style="list-style-type: none"> • Should limit the number of people assigned to the same scenario to avoid communication problems that emerged in the case of this scenario with 21 people working on identical tasks (Group 11, 16). • Should continue to provide access for groups to WebCT as a tool for communication between all people working on the same scenario (Group 11). • Should provide information on how to develop growing plans to ease the complexity of this scenario (Group 11). • Should assign group scenarios earlier in the semester, to allow adequate time to obtain responses from distributors, etc. (Group 16). • Should assign groups in the final remaining terms of the project “to assess the value of the previously developed food sustainability model within the applied projects” (Group 15).

Campus Sustainability Office	<ul style="list-style-type: none"> Should “continue to support the Farm through social marketing and education campaigns in the UBC community as we are a leader in campus sustainability initiatives in Canada (CSO, 2005) and the farm is a significant component of a sustainable vision at UBC” (Group 16).
UBC Farm	<ul style="list-style-type: none"> Should seek “capital investment into Farm wages which would help increase the sustainability of the UBC Farm. Greater business trade between UBC food distributors like the AMSFBD would encourage the growth and development of the UBC Farm as a powerful educational resource” (Group 15). Should explore “further development of the pilot internship program developed by Stephanie Fung which may increase the regulation of the farm business and provide a more consistent labour base” (Group 15).

Overview of 2005 Spring Scenario #3: Education, Awareness and Re-localization

Summary of Specific Problem Definition

Increasing the feasibility of re-localizing UBC’s food system requires that UBC consumers be willing to show interest and to purchase local foods. However, it is believed by some that most of UBC community members have a low level of knowledge about local foods, and awareness about the benefits of eating, supporting and buying local.

General Research Question:

Develop an educational campaign, including a set of educational pieces that would enhance the feasibility of re-localizing UBC’s food system by increasing awareness about the benefits of local foods. We need to know the detailed steps required for its implementation, such as where, when, with whom, how, and how much?

Note: Out of the four groups who worked on this scenario, two were assigned the task to design a campaign directed towards UBC food workers, and two were assigned the task to design a campaign directed towards all UBC food consumers.

Summary of Methodology

- Conducted a literature review of secondary sources including former AGSC 450 student work (AGSC 450 2004 spring Group 1, 2004 summer Group 3) and Fall 2004 Sauder School of Business group paper (Group 1, 7).
- Review of the BC Agricultural Council website (Group 1, 7, 9, 13) as well as the annual report from the Ministry of Agriculture and Food was conducted (Group 7), email communication with an anonymous representative of the Buy BC program was conducted (Group 7).
- Survey results from AGSC 450 2004 Group 17 and the Sauder School of Business fall 2004 were analyzed to help develop the educational campaign (Group 7).

- Email and telephone communication was conducted with potential suppliers and/or participants for the educational campaign (Group 1, 7, 9).
- Conducted an analysis of websites for potential promotional tool suppliers for the educational campaign (Group 1, 7, 9).
- Met with Nancy Toogood, the Manager of the AMS Food and Beverage Department, to discuss our campaign ideas, which resulted in close collaboration in developing the group's vision and tools for the educational campaign (Group 13).

Summary of Central Findings

Review of the “Buy BC” Campaign:

Objectives:

- To increase consumer awareness of locally (BC) produced and processed food products (Group 1, 13).
- To generate support for local BC food production and processing, ensure the long term economic viability of the agricultural industry by increasing consumer awareness of local food (Group 7, 9).

History:

- Buy BC program was established in 1993, and was led by both the provincial government and the agri-food industry (BCAC, 2005 in Group 7).
- A few years ago the provincial government pulled funding and the program has been taken over by the BC Agricultural Council. (Group 1, 7 and 9). Prior to funding cuts, the provincial government provided multi-million dollar program funding (BCAC, 2004). Recent cuts were made to the program by the BC Liberal government, and “Buy BC is now sustained through user fees to offset the costs of operating the program which indicate growing concern and support for educational campaigns in this area” (Buy BC in Group 1, 13). Since then, the council has been struggling to maintain the program (AGF, 2002). A new user-pay program, requiring producers to pay an annual fee depending on their company size for the participation in the Buy BC program, was administered in 2003 to sustain the program (Birley, 2003). The program is now maintained under a sublicensing agreement with the provincial government (Group 7).

What:

- “Food producers and processors who qualify and pay to participate in the program are licensed to use the Buy BC logo or the Buy BC marks” (Group 7).
- “Participating companies can also take advantages of special promotions organized by retailers in the Buy BC program to promote their local products (BCAC, 2005). With an additional cost, Buy BC Road Signs are available to provide customers with clear directions toward a participating company's farm or local food market (BCAC, 2005). The program is planning to offer website promotion and product research for its participants in the future” (Group 7).

Promotional Tools:

- Created a Buy BC Logo, road signs, posters and stickers which are displayed around food markets (Group 1).
- Also displayed the Buy BC logo via television advertisements (Group 1).

- The Buy BC marks are classified into three main categories: BC Grown, a BC Product and BC Made. BC Grown products are 100% grown or raised in BC (BCAC, 2005). A BC Product indicates food with over 51% of its production originating in BC and is mainly grown within the province as well (BCAC, 2005). Although BC Made products are also processed in BC, their raw materials are from other provinces or countries (BCAC, 2005 in Group 7).

Successes:

- Consumer recognition of the Buy BC logo has been measured at 75% (BCAC, 2004 and Buy BC, 2005 in Group 1, 13).
- The program has made people consider buying locally. Since many people recognize the Buy BC logo, it will be useful to include it as a part of our educational campaign (Group 7).
- “According to the Ministry of Agriculture and Food annual report from 1998 to 2000, the number of companies that use the Buy BC logo has increased by about 20% (Ministry of Agriculture, Food and Fisheries [AGF], 1999, 2000). Over 1200 companies and 5000 products are involved in the application of the Buy BC logo (BCAC, 2005 in Group 7).
- Through the use of various logos (Buy BC, BC Product, BC Grown, and BC Made), the program has increased consumer awareness of food grown or produced in BC, and aids in consumer identification of such items in grocery stores. Many of these products—over 5000—are available throughout the province, and in an increasing number of stores (over 200 at present). At this time, consumer recognition of the logo is purported to be over 75%, and the logo has benefited in over \$10 million in media exposure (BC Agriculture Council in Group 9).

Challenges:

- The council has been struggling to maintain the Buy BC program since the government funding cuts were made and replaced with user-pay program (AGF, 2002 in Group 7).
- User fees now “range from \$250/year for small companies to up to \$3000/year for large companies” making it less accessible to many smaller companies (Group 9).
- From an email interview with an anonymous representative from the Buy BC program, “it was disclosed that there are difficulties in maintaining the program. As the program was initially free with the government funding in the past, a limited number of firms and associations are willing to pay for the licensing fee that is now required. There are only forty firms with current licenses and the program budget is about \$25,000 each year. The budget is not sufficient to support the logos and other materials” (Group 7).
- Likewise, “another challenge that the program faces is the development of individual local food programs by the retailers. This has caused many retailers to withdraw from the Buy BC program. [“Jane Doe”] is making progress in discussions with provincial government on how the Buy BC program can be beneficial to BC. His/Her efforts include linking the program with current initiatives on “healthy food for healthy British Columbians” and the Act Now Program as well as promoting BC agri-food industries in the lead-up to 2010 Winter Olympics (Anonymous, Buy BC Program, 2005 in Group 7).

Lessons:

- The effectiveness of the Buy BC logo can be attributed in part to its design as clear, simple, and highly visible (Group 1, 9).
- The Buy BC logos (Buy BC, BC Product, BC Grown, and BC Made), are also effective because they permeate the whole campaign (Group 1).

- The use of a logo can “enhance product identification, and to practice new purchasing behavior” among consumers (Group 9).
- The use of a logo aids in raising awareness among consumers to think about where their food is coming from (Group 13).
- The “use of a logo provides an opportunity for program evaluation—consumer acceptance and program impact can be tracked relatively simply, for instance through tallying the number of local products purchased” (Group 9).
- “In targeting consumers at shelf level, where most purchasing decisions are made (BC Agriculture Council), the campaign simplifies consumer decision-making, and increases the likelihood of behavior change” (Group 9).
- The “Buy BC campaign offers clear incentives for members, such as participation in exclusive promotions; incentives will be critical in ensuring participation by UBCFS members” (Group 9).
- The “Buy BC Campaign rewards desirable behavior (i.e., selling local foods) rather than penalizing undesirable behavior (i.e., selling imported products). This ensures that the members can still make a profit on non-local foods, while encouraging members to increase their stock of local products” (Group 9).
- In “order for members to use the various Buy BC logos, products must satisfy certain eligibility requirements, such as being 100% grown in BC, or having more than 51% of processing costs originating in BC”. A similar requirement could be created for the UBCFSP, through establishing criteria that in order to participate in the program “UBCFSP members sell a minimum percentage of locally grown products”. This would allow “UBCFSP to sell a mix of non-local and local products, while encouraging an increase in the latter” (Group 9).
- The Buy BC definitions of local foods can help inform the definitions for the UBCFSP campaign (Group 1). Below is a list of the specific definitions that are used in the Buy BC program:
 - **Locally Grown:** Food, fish, beverages or agricultural products which are 100% grown, caught, or raised in British Columbia (or in Canada).
 - **Locally Produced:** Processed food, fish, beverages or agricultural products that are made with a majority of raw materials (by composition) which are grown, caught or raised in BC (or Canada); and are processed and packaged in the province with 51% or more of the direct cost of producing the product in its final form (direct labour, raw materials, processing and packaging) originating in British Columbia (or in Canada).
 - **Locally Made:** Processed food, fish, beverages or agricultural products that are made with a majority of raw materials (by composition) which are not grown, caught or raised in BC (or Canada); and are processed and packaged in the province with 51% or more of the direct cost of producing the product in its final form (direct labour, raw materials, processing and packaging) originating in British Columbia (or Canada) (BCAC, 2004 in Group 1).

Related Initiatives:

- The Real Canadian Superstore’s “President’s Choice Blue Menu” promotion (Group 1).

History:

- This initiative was developed “in appreciation of the increasing trend of weight and health conscious consumers in our society” (Blue Menu, 2005). Representatives from Superstore “recruited a team of dietitians, nutritionists, and researchers who are working in conjunction with Dietitians of Canada and the Heart and Stroke Foundation” (Blue Menu, 2005 in Group 1).

Promotional Tools:

- The “Blue Menu promotion utilizes a bold yet simple logo to identify the foods that are lower in fat, lower in calories, and higher in fiber, but at a fraction of the price of other commercial food items. They have banners, posters, grocery bags and staff that wear t-shirts promoting the new campaign throughout the store. Television commercials and a website all provide information for the consumers about the relevance of the Blue Menu” (Group 1).

Group 1: Proposed Educational Campaign

By/With Whom:

- The target population for this campaign “includes all individuals who purchase foods on campus including students, faculty and staff, with a special focus on first year students ...[since] they will be at UBC for the longest period of time” (Group 1).
- The campaign will require future AGSC 450 students work with “AGSC 100 students as volunteers”, and “with the Alma Mater Society, UBC Food Services, and AMS Food and Beverage Department” (Group 1).

Goals:

- The goals of the educational campaign “are to generate awareness of the importance of locally produced foods and ensure the sustainability of the UBC food system” (Group 1).

Campaign Approach:

- The campaign is based upon the premise that in order for a campaign to be successful it needs a simple, effective logo which needs to be made highly visible. Specifically, it was felt that “by displaying the logo all over campus in different locations and communication channels, individuals will begin to recognize it and will hopefully begin to identify the connection between the logo and the healthier, more sustainable food choices available to them”.
- The campaign is based upon the idea that the campaign logo needs to permeate the campus “in order to develop consumer recognition over a relatively short time-period. Once recognition is achieved, changes are likely to occur in individual behavior” (Group 1).

Timeline:

September 2006¹¹ (first week of classes): Campaign materials can be distributed through:

1. The AMS Welcome Back BBQ;
2. IMAGINE UBC, a student orientation program;
3. Firstweek initiative sponsored by the UBC Alma Mater Society (AMS).

September 22 and 24, 2006: Sustainability banquet¹² will take place during Group 7’s “Food Week” festivities (described in Group 7 “Proposed educational Campaign”) (Group 1).

¹¹ Note: Group 1 indicated in their paper that the campaign should occur during September 2005, based upon the assumption that a 2005 summer AGSC 450 class will be held. Since, no summer class was held this year; I have adjusted the timeline and planning for activities to September 2006.

¹² Note: Unfortunately, this group left out significant details in their paper required to plan and implement the “sustainability banquet”, such as who the participants will constitute, what and where food items will come from, etc.

What:

- A banquet was developed called the UBC “Sustainability Banquet”, which was designed to raise awareness about the benefits of local foods through providing “consumers with taste exposure to meals made with local foods” in the SUB Ballroom.
- Tools to promote awareness of local foods sold on campus were developed to be distributed during the first of classes in September through the AMS Welcome Back BBQ, the Firstweek initiative sponsored by the UBC Alma Mater Society (AMS), and in Imagine UBC (Group 1).

Location and Planning Requirements for the UBC “Sustainability Banquet”:

- The SUB Ballroom was selected to serve as the location for the “Sustainability Banquet”. It was selected because “it has access to catering facilities, which have been offered for use free of charge for our purposes”.
- The “Sustainability Banquet” “should be open to any of those who wish to participate and tickets will be at cost” (Group 1).

Promotional Tools and Pieces:

See **Appendix E** for “Promotion Material Contacts”.

Posters:

- Posters were developed (see **Appendix E**), incorporating the 2004 spring Group 17’s proposed slogan “Eat Thoughtfully, Think Locally”. In order to develop an effective poster, it was felt that it should be based upon the following characteristics: “Simplicity, visibility, and quantity of signage”.
- The “objectives of the poster are to influence consumers to purchase foods that have our logo and recognize these foods as a thoughtful, local, and better choice”.
- 5000 posters should be printed and posted “throughout the campus and placed at the entrance to all food service outlets”. “AGSC 100 volunteers will be responsible for distribution and posting of these advertisements”.
- The poster includes a link to a UBCFSP website “so that the reader can access more information regarding the educational campaign and the food system re-localization project behind it” (Group 1).

Website:

- A proposal to create a UBCFSP website was developed (see **Appendix E** for “Website outline”) to serve as an additional tool that can be “used to educate our target population and clarify information regarding such topics as the definition, availability and benefits of buying locally produced foods” (Group 1).

Radio:

- The “Sustainability Banquet” can be promoted via UBC’s radio station CTR, who was chosen because they offered free advertising, and it is considered a “great medium for publicity, since many UBC students are listeners” (Group 1).

Magnets:

- 5000 magnets displaying the campaign logo (see **Appendix E**) can be distributed in “first year frosh kits, which are distributed during *Imagine*, a first year orientation program. The Frosh kits contain a wide assortment of promotional items from different campus businesses, clubs, and events” (Group 1).

AMS Insider Agenda:

- The logo can be displayed in the “AMS Insider Agenda” which is a widely publication distributed among all UBC students (Group 1).

Stickers:

- Based upon the “marketing strategy that The Real Canadian Superstore has implemented to generate publicity for their Blue Menu program” a sticker label was developed (see **Appendix E**), for campus food service outlets to place on “menu and/or food items that contain greater than 50% of locally produced foods”.
- The sticker was designed to be “convenient, bold, and simple and will allow consumers to identify which food items are locally grown and make better choices for themselves in a fast and efficient manner” (Group 1).

Banner:

- A UBCFSP banner with the campaign logo and slogan should be developed and displayed at the event (Group 1).

Tickets:

- The campaign “logo should be on the backside of the ticket that is sold to the students” for the AMS Welcome Back BBQ (Group 1).

T-shirts:

- T-shirts designs depicting the campaign logo and slogan were developed for 250 UBC food workers to wear (see **Appendix E**).

Location of Administration of educational pieces and campaign:

- The AMS Welcome Back BBQ and the FirstWeek events were selected as the first venues to kick off the campaign. The “foods provided at the Welcome Back BBQ have always been from local producers”, and it was thus considered a perfect forum to take advantage of by promoting our logo to support local foods to the target population.
- The rest of the campaign will be ongoing and occur through the above mentioned advertisements, such as posters, stickers, and magnets” which will ideally “enhance and maintain the change our team is trying to promote” (Group 1).

Budget:

- Upon consultation with Nancy Toogood from AMS Food and Beverage Department and Dorothy Yip from UBC Food Services, “both indicated that there is no established budget for the campaign. However, in the event that they support our ideas, Nancy Toogood stated that the AMS would be willing to provide \$5000 in funding”. As a result, the campaign budget was we have planned accordingly with a budget grand total of approximately \$3529. See **Appendix E** for the campaign budget. All associated campaign costs are included in this agenda, with the exception of costs for printing advertisements in the “AMS Insider Agenda”, since no price lists

were available. Also, the cost of food and labor required for the “Sustainability Banquet” were not estimated, but in order to cover these costs it was recommended that “the banquet ticket price be equal to the cost of the food...[and] Ideally labor will be provided on a volunteer basis” (Group 1).

Group 7: Proposed Educational Campaign

By/With Whom:

- The target population for the educational campaign is all consumers of food and beverages at UBC. UBC consumers are composed of students (64,410 enrolled in the 2004/2005 school year), most of which are undergraduates, faculty (~8000), staff, and residents (Group 7).

Goals:

- The goal of the educational campaign is “to send clear, concise, and positive messages that emphasize the benefits of local food”, incorporating “the benefits of purchasing and consuming local foods in terms of social, economical and ecological aspects”. These messages will be delivered using “aesthetically pleasing visuals relevant to our target audience with a general slogan “Buy Fresh, Buy Local” (Group 7).

Campaign Approach:

- The approach chosen for the campaign is based upon the premise that “promoting the health benefits of local foods will be more effective than focusing on the negative environment implications of non-local foods as most people are anthropocentric and consider their own health before that of the environment”. Specifically, through the campaign using the slogan “Buy Fresh, Buy Local” and other information on posters and pamphlets that “promote local foods as a healthy alternative to well-traveled food because they have a higher nutritional value and contain are grown with fewer chemicals” (UCS, 2002 in Group 7).
- A successful re-localization campaign at UBC was deemed to consist of addressing UBC consumers using multiple strategies. One of strategies developed was based upon a “*diffusion of innovations*” model which was felt could “help explain how new ideas, products, and practices are adopted in various segments of the population at UBC. Although local food is technically not an “innovation,” it is a new idea in the respect that most of the UBC population is accustomed to purchasing globally produced or grown foods and may not be conscientious of choosing locally”. Based upon survey results from AGSC 450 2004 Group 17, and the Sauder School of Business Fall 2004 Group, it was found that in order to enhance the level of UBC community acceptance of the innovation of local foods, “it must be perceived to have greater benefits than costs while the risks of changing are not prohibitively high. The main ‘risk’ the UBC population may perceive to local foods is an increase in price and lack of variety; therefore it is important that food prices remain competitive and eating seasonally is emphasized in our campaign” (Group 7).

Timeline:

September 2006 (first week of classes): Campaign materials can be distributed through:

1. IMAGINE UBC, a student orientation program;
2. Firstweek initiative sponsored by the UBC Alma Mater Society (AMS).

Rationale: “Through these programs, we can reach new students to UBC to deliver our message of support for a local food system”.

September 22 and 24, 2006: “Food Week” festivities will take place (Group 7).

What:

- An awareness-building event was developed called “Food Week”, which will include fun food related events to be held in the Student Union Building (SUB) concourse.
- Promotional tools were developed to be distributed during “Food Week” and also during the first of classes in September through IMAGINE UBC and the Firstweek initiative sponsored by the UBC Alma Mater Society (AMS), targeting new UBC undergraduates (Group 7).

Food Week Festivities:

1. “Cooking with John Bishop” Event

- John Bishop, “is a local fine dining restaurateur who promotes a sustainable food system at his business by purchasing local and organic foods as part of his restaurant’s food purchasing policy. He is also an active member in the Vancouver Food Policy Task Force, which seeks local food security and sustainability”. He was chosen to participate in this campaign, not only because his position is quite relevant to the campaign, but also because it was believed that due to his local food celebrity and high profile status, he might help attract attention to the educational campaign.
- Mr. Bishop was contacted “to see if he would be interested in participating in our awareness campaign, and he was enthusiastic at the prospect (Group 7).
- To “take advantage of his high profile, he could be the ‘celebrity judge’ of a cooking contest of students using local foods donated by SPUD or the UBC Farm. Alternatively, he may be willing to do a cooking demonstration or be on hand to provide recipes using local foods” (Group 7). For John Bishop’s contact info, see **Appendix E**.

2. Raffle Draws

- Several raffle draws should be held throughout the course of the festivities in “food week”.
- “To be eligible for the raffle, students will be asked to answer questions such as what they believe local food is. A winner will be announced daily to maintain student interest and incentive to participate”.
- Raffle draws could include “prizes such as gift certificates to local restaurants Sage Bistro and Bishop’s, as well as cookbooks that feature local food ingredients” (Group 7).

3. Special Appearances

- Special appearances by “representatives of the UBC Farm, Sage Bistro, and Sprouts” could take place during “Food Week”.

Other Potential Food Week Activities:

- Activities that can be planned and held in future iterations of Food Week “can include cooking contests using local ingredients, and a Battle of the Bands concert featuring local talent” (Group 7).

- Food week “can grow to be an annual Food Festival on the UBC Farm, offering tours of the farm to UBC students and contests, while providing local food and local bands as entertainment” (Group 7).

Promotional Tools and Pieces:

- Three posters were developed (see **Appendix E**) that consist of a clear slogan “Buy Fresh, Buy Local” and concise positive messages. The posters are designed to “appeal to people who are information seekers, which is a common characteristic of the UBC population” (Group 7).
- A logo, depicting a slogan “UBC Grown” was developed (see **Appendix E**) based upon AGSC 450 2004 summer Group 3’s logo. As described in summer 2004 Group 3’s paper, “the two people on the label symbolize the importance of people in establishing a foundation for the future while the heart motif represents the central idea of social sustainability and the nurturing and caring nature needed in developing connection with each other and the environment. Finally the plant, as described by the group, helps us incorporate the idea of how important it is to have food grown at the UBC campus itself as a prime example of locally grown food”. While, the logo still retains the depiction of food and community, this idea is further reiterated by a new slogan, “UBC Grown”.
- The logo and slogan were developed into stickers (see **Appendix E**) which can be placed on UBC Farm produce (Group 7).
- Also a double-sided pamphlet was developed (see **Appendix E**) which “includes information about why people should purchase and consume local foods in terms of economical, nutritional and ecological aspects, current resources and contact information, such as Sprouts and the UBC Farm, to learn more about local foods, as well as a brief summary about the Buy BC program” (Group 7).
- Banners should also be created for “Food Week” for the banner boxes situated outside the SUB. “These banner boxes are located at the top exterior of the SUB on both the north and south entrances and they provide a big visual impact at a centralized location. Banners are to be approximately 7.5 feet by 3 feet” (Group 7).

Location and Planning Requirements for “Food Week”:

Booking Space in the Student Union Building Concourse:

- Proposals for space in the SUB must be “submitted to the Student Administrative Commission at least two weeks prior to the event start date for discussion and final approval”.
- Proposals must include the “required space and dates requested and other groups, organizations, companies, and UBC partners we intend on working with”.
- If the group making the proposal “is able to collaborate with AMS Food and Beverage (AMSFB) and Nancy Toogood, we may be given permission to use the SUB concourse free of charge or at partial rates. Further inquiries in regards to final rental rate estimates could be made to Kari Hewett”.
- If the group decides to “work independently and not in conjunction with AMSFB, questions with regard to SUB concourse rental rates could be directed to Jane Kim and concerns with specific room rental space within the SUB can be made to Sunshine Hanan” (Group 7).

Promoting “Food Week” and Administration of Educational Pieces that Raise Awareness about Local foods:

Pamphlets:

- Local food pamphlets should be distributed both before and during “Food Week” to promote the event. These pamphlets are designed to both promote “Food Week” and raise awareness about local foods.
- The pamphlets can “first be distributed inside the Tupperware containers from the UBC residents association to UBC campus residence students during the final weeks of August”.
- For IMAGINE UBC, pamphlets should be incorporated into the Frosh Kits by student leaders who are interested in participating. Frosh Kits are distributed to each new UBC student (approximately 5000 first year students) on the first day of classes, prepared by the IMAGINE UBC orientation program. The kit includes information about upcoming events within the course of the month. For contact information to include the pamphlet in Frosh Kits, see **Appendix E**.
- Pamphlets “can also be presented to the AGSC 100 class of September 2006, in order to recruit volunteers for Food Week as a component of their class requirements. We felt that targeting these first year students will be effective in increasing awareness of local foods in those students potentially purchasing food from campus over the next four years, as well as an early promotion of the UBC Farm and vendors of local foods on campus” (Group 7).

Radio:

- “Food Week” could be promoted on the Beat radio station (94.5FM) who can benefit the campaign both through providing wide media exposure and through their use of marketing expertise.
- The Beat radio station (94.5FM) was selected because they are “known to be involved in community events on and off UBC campus and would be willing to promote our event” (Group 7).

Banners:

- Banners can be displayed outside of the SUB to promote “Food Week”. They “can be produced individually or by a graphic designer provided by the AMS MarPro department at a cost of \$13 per hour at a maximum of 1.5 hours” (Group 7). For contact information to create banners, see **Appendix E**.

Websites:

- “Food Week” can be “promoted on the UBC Farm website and UBC Student Services website under events” (Group 7).

Sticker labels:

- The sticker labels “can be provided to the UBC Farm to be used on all food produced there such as squash, tomatoes and salad mixes”.
- These labels can also be placed on food items and menus at “various food vendors on campus that sell products from the farm, such as Sprouts or Sage Bistro”, to build awareness of locally grown food options and to allow campus consumers the choice to buy locally grown.
- Those groups who worked on scenario 2c can also place the logo on their local foods menu to promote UBC grown food (Group 7).

Posters:

- Three posters were designed that can place throughout the SUB and around UBC (Group 7).

Campaign Budget:

- In the event that AMS Food and Beverage Department support the campaign proposals, they “have indicated that they are willing to spend \$2500-\$5000 towards an educational campaign” (Toogood, 2005 in Group 7). See **Appendix E** for the “campaign budget” (Group 7).

Group 9: Proposed Educational Campaign

By/With Whom:

- The target population of the campaign includes “480 full-time and part-time food services workers employed by UBCFS, including management and purchasing personnel, supervisors, kitchen staff, and front-line workers”. In order to narrow the scope of our campaign, please note that only participants employed through UBC Food Services were selected to serve as the target population. The 480 food services workers consist of 320 full-time workers, and 160 part-time workers, who are students. “All of these food service workers are unionized under CUPE local 116” (Group 9).

Goal:

- The goal of the campaign is to enhance awareness among UBC food workers on the benefits of buying and producing local foods on campus, selling local foods on campus menus, and how re-localization can enhance the economic, ecological and social sustainability of the food system. This goal will ideally be achieved through the use of two methods: (1) through the distribution of pamphlets (see **Appendix E**) to local food workers, and (2) through the launching of a “UBC Local Food Cook-off” competition (Group 9).
- The campaign “goal is not restricted to providing education on what local food products are, but also the benefits of buying and selling locally produced foods. It is our ambition that this campaign will advertise the feasibility and benefits of providing local food and result in more local food being purchased and sold at retail outlets throughout the UBC campus”. Through “being proactive in this manner, UBC can—in its small way—blunt the impact of the global food system, and work toward the larger goal of an ecologically, socially, and economically sustainable food system”(Group 9).

Campaign Approach:

- The campaign is based upon the premises that workers who interact with customers can have a fundamental influence on consumers’ food choices, and since “workers themselves are consumers as well equips them with a fair amount of purchasing power in terms of food commodities while they spend time working at UBC”.
- Specifically, it is believed “that customer service representatives or “front-line” workers play an important role in influencing consumer choices. These workers have a direct effect on the choices of customers through their verbal interactions and opinions. Front-line food workers act as ambassadors of local foods and can help create an impression of the importance behind choosing local food by delivering the message to consumers. For instance, a hungry UBC student may approach a worker at Trekkers Express and consult the cashier asking, “What is fresh today?” The food worker may courteously reply with recommendations for locally produced

fresh green salad, or a specialty drink made with BC grown fruits. As food workers become food consumers when they purchase food for themselves, they are also part of the consumer population. In this way, food workers have the opportunity to provide an example, allowing others to see what food choices they make. This fact amplifies the significance of educating food workers about the importance of supporting the local food system”.

- It was felt that the “key to launching a successful campaign is to rally the management and purchasing personnel of UBCFS to fully support the cause; enabling them to play a major and pivotal role in developing food procurement guidelines to support sustainability. Once this is done, they will work towards educating the kitchen staff in selecting and using more local foods while planning menus. Finally, the front line workers, who have direct contact with the customers, will be oriented with the benefits of a sustainable food system and the local foods used in various menu items. They will also be responsible for educating customers in making sustainable food purchase choices” (Group 9).

What:

- A local awareness building event was developed called the “UBC Local Food Cook-off” Competition. Inspiration for the design of the campaign was “drawn from the culinary competitiveness of the “Iron Chef” competition”.
- Promotional tools were also developed to raise awareness about the benefits of local food and to promote the event.

“UBC Local Food Cook-off” Competition:

Location and Planning Requirements for the UBC “Local Food Cook-off”:

- UBC Local Food Cook-off “will be conducted concurrently at the five main cooking facilities operated by UBCFS—Place Vanier Residence, Totem Park Residence, Sage Bistro, 99 Chairs and Pacific Spirit Place in the Student Union Building” (Group 9).
- A total of 5 teams representing each of the above mentioned food services will be set up consisting of 4 people.
- Each team will “compete against each other based on their skills and creativity in the kitchen”.
- Team members will be asked “to formulate a special menu entrée based on several criteria. The main principle being that all ingredients used in the dish must originate locally, as defined earlier in this proposal. There are no exceptions to this local food rule, besides the use of seasoning ingredients such as salt and pepper, which will be permitted. Therefore, these decadent dishes can boast to be the product of BC’s local food system and be advertised as such to the consumer”. “The featured menu items will be in competition with each other over the course of one week”.
- “Advertising of the special menu item will also be the responsibility of the UBCFS venue”, which will be included in the judging criteria.
- Each team member (20 in total) will receive UBC Local Food Cook-off aprons for participating in the event (See Appendix E for “Apron Design”).

Judging:

- Throughout the competition, appointed judges will make their way around to the various venues and sample each team’s local dish.
- The criteria that judges will need to assess the local team’s menu item dishes to be reviewed and compared should be based upon the following: “sustainability, nutrition, taste, price and

consumer responses” and the advertising used to promote the local menu item. The team which judges allocate the most points will be awarded first place in the competition, and the team with the second highest points will be awarded second place.

- A list of suggested judges for the competition and judging criteria is provided below in **Table 1**:

Table 1: Suggested judges of local food menu items, as well as the criteria measured by each judge.

Judge	Area of Expertise	Specific Criteria	Example	Score
Alejandro Rojas	Course Instructor, AGSC 450. Land, Food and Community	Sustainability	- The locality of the menu ingredients	Out of 40
Mia Stainsby	Vancouver Sun Newspaper Food Critic	Taste	- Personal judgment on sensory value of meal	Out of 20
Jackie Ehlert	UBCFS Personal Wellness Program Dietician	Nutrition	- Nutritional value of the meal	Out of 20
Jim Vercammen	Food Economics Professor	Price/Affordability	- Price of menu item - Cost of menu item	Out of 10
Andrew Parr	UBCFS Director	Customer Response / Marketing Campaign	- Number of meals sold - Revenue from meals	Out of 10

Prizes:

- The “winning team will receive an impressive “UBC Local Food Champion” trophy to proudly display in their venue as well as a \$400 cash prize to split among the team members. The team that places second will receive a \$200 cash prize”.
- Upon announcing winners, it should be noted that “as a participant in the UBC Local Food Cook-off no one loses because the goal is to increase awareness about the importance and feasibility of using local foods, which is a reward for everyone involved” (Group 9).

Promoting the “UBC Local Food Cook-off” and Administration of Educational Pieces that Raise Awareness about Local foods:

Classroom Announcements:

- AGSC 450 students should seek permission of instructors in large UBC classes to make announcements to advertise the campaign. Announcements should take place at the beginning of classes, and a poster (see **Appendix E**) should be used to “as an overhead image to assist in this short presentation informing students about the UBC Local Food Cook-off”.

Posters:

- AGSC 450 students should place posters strategically placed around campus and at UBCFS venues. Specifically, each participating food outlet should be supplied with 2 large posters and 8 small posters. 15 large posters should be posted in 15 of UBC’s most dense buildings, and 60 small posters should be posted throughout campus.

Pamphlets, Buttons and Aprons:

- A double-sided pamphlet was developed (see **Appendix E**) which describes the “UBC Local Food Cook-off”, “the importance of local food, and what season certain foods are available from BC”.
- Among the participating UBCFS outlets, each worker should receive a pamphlet which will “serve as useful references to supply the workers with an information base which can be readily conveyed to the customer during the local food competition, as well as in the future”.
- An information booth should also be set up, “which will rotate daily between the five food outlets, throughout the week-long competition. This booth will have a volunteer representative of the AGSC 450 class who will be able to provide information about the local food system as well as the UBC Local Food Cook-off. In addition, a worker from the UBC farm will assist in managing the booth and represent local food growers”. Booths will be equipped 150 pamphlets, 200 buttons (see **Appendix E** under “Logo”) for distribution, and 100 aprons to be sold for \$10.00 “adorned with the “UBC Local Food Cook-off” logo for sale”. See **Appendix E** for the apron design.
- Each of the 480 UBCFS workers should receive a button to wear to promote the event.
- “UBCFS workers will each be given five “50% off local meal coupons” for each of the five competing venues. This will allow them to sample some of the local food creations for a reduced price” (Group 9).

Timeline:

March – April 2006 (5 weeks)

Week 1:

See **Appendix E** for a list of required contact information needed for the first week campaign planning.

- “AGSC 450 students should contact local food companies and related governmental agencies to secure possible sponsorship and funding for the campaign”.
- AGSC 450 students “should get in contact with Andrew Parr from UBCFS to arrange for funding of the campaign”.
- AGSC 450 students should contact the judges for the UBC Local Food Cook-off competition to determine their willingness to judge the competition.
- AGSC 450 students should contact a staff member from the UBC farm, such as Mark Bomford (Program Coordinator for UBC Farm), to determine availability to aid in providing information about locally produced and answering questions at the information booth.
- AGSC 450 students should contact the five largest UBCFS cooking facilities that have been selected to participate in the Cook-off competition to inform them about the competition and the rules.
- AGSC 450 students should organize to “print posters, pamphlets, overheads, and 50 % off local meal coupons and order the buttons and aprons. Juliana Campbell can be contacted concerning printing, as she currently fills this role for UBC Food Services”. For information on sources and quantity requirements for buttons, aprons and trophies, see “Unit price and Assumptions for Each Revenue and Expense”, designs of the campaign logo, poster and pamphlets see **Appendix E**.
- “During and after the ordering/purchasing of supplies, the budget should be reviewed to ensure that there are sufficient funds available for this campaign”.

- “After the overheads are printed, students should make announcements at the beginning of large classes, with permission of the instructor, to advertise the UBC Local Food Cook-off competition”.

Week 2:

- AGSC 450 students should set up “a meeting should be set up with the judges to discuss the judging procedure and criteria”
- AGSC 450 students should distribute the “50% off meal coupons, buttons, aprons and educational pamphlets” to all of the 480 UBCFS food workers.
- The posters should be distributed to the UBCFS venues and also placed strategically around campus (i.e. Student Union Building, main entrances to the various faculty buildings, UBC bus loop)”. See **Appendix E** for the campaign poster.
- An AGSCI 450 student and the selected UBC farm worker should meet to arrange “plans and set up for the information booth that will run throughout the third week, during the competition”.

Week 3:

- UBC Local Cook-off competition should take place “concurrently at the 5 selected venues and the competition will run for the entire week”.
- Throughout the week, “the information booth should rotate daily between the venues. The judges will have to go around to each venue and award points based on the criteria they are judging”
- At the end of the week judges should “combine their points and decide on a winner”.

Week 4:

- On Monday the “winning team should be announced and the first and second place teams can be awarded their prizes. If the campaign generated a profit, a Local Food Cook-off Fund should be created at this time” (See **Appendix E** under Budget sections).

Week 5:

- AGSC 450 students should finalize their report and presentation (Group 9).

Campaign Budget:

- See **Appendix E** for the “campaign budget sheet”, “Unit Price and Assumptions for Each Revenue and Expense”, and a “breakdown of expenses” (Group 9).
- Total “Local Food Cook-off” expenses are calculated to be \$1530.70, total revenues generated through apron sales are estimated at \$1000.00, leaving a net cost of \$530.70”.
- To cover this net cost, it is recommended that “further contact with the local food companies and related governmental agencies to secure possible sponsorship and funding. If the sponsorship and funding exceeds the amount needed to cover the required funding, we recommend to setting up a “Local Food Cook-off Fund”, which will function as a savings account to allow this event to be repeated in the future; this event could thus potentially operate indefinitely in a sustainable manner”.
- Note that it is assumed that each “Local Food Cook-off” team is responsible for the selection and purchase of their required food supplies. The expense of the food purchases, and the

revenue through the sales of Local Food Cook-off meals are considered to be part of the regular business of the UBCFS” (Group 9).

Group 13: Proposed Educational Campaign

By/With Whom:

- The primary targets of the educational campaign are “the staff members of the AMS Food and Beverage Department”. Staff members range from “professional managers to students to carry out the day-to-day workings of their food outlets, cafes and restaurants” (AMS Your Student Society Online in Group 13). The AMSFBD “employs over 400 students and their food outlets include 12 restaurants and cafes in the SUB” (see Table 1 below) (AMS Your Student Society Online in Group 13).

Table 1: AMS Food and Beverage Department Establishments

AMS Catering	The Honour Roll
Bernoulli's Bagels	The Moon
AMS Outdoor BBQ	The Pendulum
AMS Outdoor BBQ	Pie R Squared
Blue Chip Cookies	The Pit Pub
The Pit Burger Bar	Snack Attack
The Gallery Lounge	Sprouts (AMS Sponsored Club)

- The “SUB building gets 8,000 visitors per day and the majority of these users see the SUB as a place to “hang out”, eat, get snacks, and check out market vendors (Homegrown Report, Team 22). Many non-resident students regard the building as their home base while on campus and many of the university staff and faculty also use the SUB for buying food. In addition, a significant number of commuters walk past the SUB every day en route for the bus loop” (Homegrown Report, Team 22 in Group 13).
- The indirect target for the campaign “is the UBC community members who purchase food in the Student Union Building (SUB)” (Group 13).

Goal:

- The ultimate goal of the campaign “is to increase interest in the sustainable food movement; especially among food workers in the hope of encouraging them to participate and take a personal stand to spread awareness” (Group 13).

Campaign Approach:

- The approach of the campaign is based on the premise that “rather than feeling helpless over the problems with our food, this educational campaign has been created to celebrate the possibilities and realities of the growing consumer movement towards re-localization. Illuminating the ways in which local food consumption is linked to global structures can help elucidate how consumption choices in one place affect natural resource use and social conditions elsewhere (Kloppenburger 95). This knowledge has been designed into an educational campaign in hopes of providing the impetus for consumers and food workers to become more sustainable eaters and food providers” (Group 13).

What:

- A variety of promotional tools were developed to raise awareness about local food and sustainable food systems, by providing “the necessary information so that consumer’s better understand the concept of a sustainable food system and be empowered to make the right choices on their own” (Group 13).

Promotional Tools and Pieces:

Logo:

- A campaign logo was created (see Appendix E) that “attempts to put the concept of buying products that have been produced locally within British Columbia, into a simple visual representation”.
- It “consists of a recycled paper grocery bag formed into the shape of British Columbia with local produce inside the bag. Those who see the logo can envision BC as our large supermarket and us, the consumers, purchasing fresh food from our province” (Group 13).

Slogan:

- The following campaign slogan was developed: “Think Sustainable, Buy Local” because it is a simple but powerful way for staff and consumers to easily recognize and become involved in the sustainability movement by simply buying local products”. Likewise, it was also felt that “the word “sustainable” is important because it is the main theme behind our campaign to educate everyone to think and act sustainably. Moreover, this slogan is short and simple so it will be easy to remember” (Group 13).

Pamphlet:

- A pamphlet was developed (see Appendix E) jointly by the AMS Food and Beverage Department and AGSC 450 Group 13 and has been forwarded to the AMSFBD for review.
- The main objective of the pamphlet “is to raise awareness of sustainability and locality through better knowledge of the initiatives that is currently going on in the AMS and UBC campus”. Also it is hoped that the pamphlet will encourage the audience "to buy foods with low food mileage if this information is available and the benefits are acknowledged”.
- The pamphlet “is targeted mainly to the staff in the AMS Food and Beverage vendors in the Student Union Building in UBC”.
- The pamphlet is comprised of the following information: logo, slogan and campaign design, AMS mission statement, benefits of buying locally, current sustainability initiatives of the AMS, food mileage, percent of local food and production methods, “contact information of the SEEDS project, the UBC sustainability office, the UBC Farm, Sprouts, and the AGSC 450 UBCFSP will be provided if people wish to learn more or get involved with any of these projects”.
- Please note that the “pamphlet is a working copy with a lot of text and in order for it to be effective, it will be edited to include more graphics and fewer words in the final copy produced by Nancy Toogood and her team” (Group 13).

Resource Binder:

- An “AMS Food and Beverage Sustainability Resource Guide¹³” was developed to serve as a “tool for the distribution of information on sustainability, local food, and current initiatives within the AMS and UBC community”.
- The “resource binder is targeted to all 12 AMS food vendors plus Sprouts”.
- The main purpose of the binder “is to empower staff members to engage with these topics and to take an active role in educating consumers. It is our belief that people are more receptive to being encouraged to participate rather than being told what to think”.
- The binder is divided into the following sections:
 - (1) Introduction to AMS Sustainability Resource Guide:
 - This section provides “useful information on AMS and UBC initiatives, local food, and ways for staff to get involved with initiatives on campus”.
 - (2) Get Involved:
 - In this section it is encouraged for each food outlet to “designate a store sustainability ambassador. The role of the sustainability ambassador is to ensure all staff read the AMS Sustainability Mission and to promote awareness of the resource guide among coworkers. This person will also challenge the staff to participate by encouraging them to bring in pamphlets, newsletters, emails and other sustainability related materials that are important to them. The ambassador will also assist the store manager to communicate with staff and maintain the spirit of this campaign over time”.
 - Information is provided regarding books, movies and courses related to sustainability, as well as fact sheets on the UBCFSP, SEEDS Projects, and other food related topics.
 - (3) What’s New?
 - Information is provided to raise awareness of local growers and businesses.
 - (4) Our Store’s Menu Items:
 - In this section, tools are offered to encourage the sustainability ambassador and manager “to add information on the origin and purchasing of menu items”. The purpose of this section is to encourage staff and consumers to learn about the origin of their food. This section includes “Food for Thought” cards which are “simple visual representations of food mileage and sustainability in terms of distance and region”. “On each card, a map and a colour code distinguish which ingredients originate in different parts of the province and surrounding areas. The AMS Food and Beverage Department has kindly agreed to do a pilot run of the “Food for Thought” cards this year for two entrees in the Pendulum restaurant in the SUB”.
 - (5) Communication:
 - This section provides “a space for staff to communicate about sustainability within their store and where the manager can record new sustainability initiatives” (Group 13).

¹³ Please note: Group 13 submitted a hard copy of their resource binder, along with a lengthy set of electronic versions of the binder components. If you wish to view the resource binder or electronic components please contact the Project Coordinator: Liska Richer: Liska@telus.net

The sections were created to facilitate effective “assimilation of information, promotion of staff participation and easy maintenance by staff in years to come”. It contains “30 pages of color-printed information sheets” (Group 13).

Location and Administration of educational pieces and campaign:

- Pamphlets should “be distributed out to all AMSFBD employees, although the pamphlets will be available to the customers as well and will be displayed at the cash register”.
- Resource binders should “be placed at a convenient location at each AMSFBD outlet, and the sustainability ambassador will guide staff as to how to use the binder”.
- The “AGSC 450 2006 students will be responsible for preparing, assembling, and delivering the resource binders based on our group’s sample prototype”.
- “Each AMSFBD establishment is also encouraged to add their own special features” to the binder.
- A “follow-up of the resource binders should be done afterwards to assess their popularity, use and current status” (Group 13).

Timeline:

February to April 2006 (7 weeks)

Week 1 & 2:

1. Conduct literature review on previous work done for this scenario
2. Review pamphlet to see if additions or revisions should be made for a second edition
3. Look through files and paper copy of binder to think about dividing up tasks for the group
4. Contact Nancy Toogood and assign a communication representative

Week 3:

1. Assign tasks to all group members
 - 3 people for Section 1: The Introduction
 - 3 people for Section 2: Get Involved!
 - 2 people for Section 3: Our Store’s Menu Items
 - Leave Section 4 & 5 to be completed by individual stores
2. Complete rough copies of all tasks by the end of the week

Week 4 & 5:

1. Meet with Nancy Toogood to ensure group is on the right track of fulfilling requirements
2. Edit and refine each other’s work to accomplish high quality end product

Week 6:

1. Copy and produce resource binders
2. Distribute binders to each of the AMS Food and Beverage outlets

Week 7:

1. Assess the popularity and effectiveness of the pamphlet
2. Present final version of resource binder and pamphlet to the class (Group 13).

Budget:

- The UBC “AMSFB has offered to cover all costs of the pamphlet production”. Two budgets are proposed for the production pamphlets: (1) \$140.00 for the production of black and white pamphlets, *or* (2) \$1040.00 for the production of color copied pamphlets including associated labour costs. The budget for the production of resource binders was estimated at \$533.00 (Group 13). See **Appendix E** for the proposed budget.

Summary of Recommendations

audience	Recommendations
2006 AGSC 450 Class	<ul style="list-style-type: none">• Should follow the suggested education campaign timeline, “start the project as early as possible, and actively source for sponsorships (e.g. local food suppliers) to help minimize the cost of implementing the educational campaign” (Group 9).• Should “work closely with UBCFS in planning, organizing and implementing the educational campaign” (Group 9).• Should “choose and develop a marketing strategy that ensures a good fit between the goals of the educational campaign and the resources and needs of the UBCFS and their workers” (Group 9).• Should “monitor and evaluate whether the educational campaign has accomplished its goals and resulted in any changes in attitudes, knowledge and practices of the UBCFS workers” (Group 9).• Should “consider expanding the scope of the competition to involve AMS Food and Beverage Department” (Group 9).• Should update the pamphlet and resource binder with the most current information and make any needed improvements (Group 13).• Should gather feedback from AMSFB staff regarding how they feel about the campaign, whether it can be improved, and whether the resource guide has been useful or not. Feedback can be gathered through the distribution of a simple survey or through interviews. Feedback collected can be used to update the pamphlet and resource binder to enhance the effectiveness of these tools (Group 13).• Should consider developing a website to compliment the paper-based campaign. “The website could contain information that is on the pamphlet, but with more detail about each part, such as a more in-depth explanation of local food and the benefits from buying it. It would also provide links to the resources that have been mentioned in the paper campaign” (Group 13).• Students should organize the events for “Food Week” to start September 2006, including printing of our group pamphlets (Group 7).• For future groups intending on implementing “Food Week” the Beat radio station should be contacted to appear at UBC during “Food Week” as a promotional tool (Group 7).• For future groups intending on implementing “Food Week”, a proposal for use of SUB concourse space must be submitted to the appropriate people mentioned above no later than 2 weeks

	<p>prior to the event (Group 7).</p> <ul style="list-style-type: none"> • In “order to ensure subsequent funding in years to come, it is recommended to assess the effectiveness of the educational campaign. Future groups should consider conducting an evaluation of awareness of local food issues in the UBC population previous to and following the campaign with pre- and post-test surveys”(Group 7). • Groups should plan to distribute the posters and the pamphlets during “Food Week” and during the IMAGINE UBC and the Firstweek initiative in September 2006. They should make plans to recruit “AGSC 100 volunteers to run the event with the help of AMS Food and Beverage Department and the AGSC 450 teaching team” (Group 7).
AMS Food and Beverage Department	<ul style="list-style-type: none"> • A mission statement should be created as a “first step to creating a unified vision for any group of food workers”. The statement should be created in time for the 2006 AGSC 450 group to add it to the “AMS Sustainability Resource Binder” (Group 13). • Should upgrade the AMS website to “reflect their involvement with the re-localization project” (Group 13). • Should “take part in “Food Week” since it will take place outside the SUB where the majority of their businesses reside”, as well as “play a major role by distributing pamphlets, displaying posters and the “UBC Grown” logo to promote local foods” (Group 7).
UBC Food Services	<ul style="list-style-type: none"> • Should “make a commitment to educate and increase awareness of the benefits of local foods to employees and consumers by incorporating the education program into employee orientation and on-going training sessions” (Group 9). • Should “consider making this educational campaign an annual event when planning UBCFS budget” (Group 9). • Should “continue to increase the percentage of local food usage in all UBCFS food outlets” (Group 9). • Should “explore opportunities for existing partners/suppliers to participate via sponsorship (i.e. apron donations or gift certificates for competition prizes)” (Group 9). • Should “allocate any profits generated from the educational campaign towards promoting local food products in the future” (Group 9). • Should “promote UBC Grown foods at Sage Bistro as well as other campus food outlets. They can do this by using the “UBC Grown” logo beside menu items featuring UBC Farm products” (Group 7).
UBC Farm	<ul style="list-style-type: none"> • Should “be involved with “Food Week” through the donation of produce to the cooking competition. They can also help to raise awareness about local food by handing out pamphlets and educating public at weekly markets. The UBC Farm can also use the “UBC Grown” logo on all their food that they sell at the Saturday markets” (Group 7).
Sprouts	<ul style="list-style-type: none"> • Should use the “UBC Grown” logo to showcase produce from UBC Farm (Group 7).

Overview of 2005 Spring Scenario #4: Exploring Existing Opportunities that Enhance and/or Barriers that Impinge on the Sustainability of the UBC Food System within Current Campus Community Plans

Summary of Specific Problem Definition

While there is an array of sustainability initiatives being carried out on the UBC campus, a high level of uncertainty and ensuing debate exists regarding whether current campus plans (Comprehensive Community Plan (CCP), Official Community Plan (OCP), South Campus Neighbourhood Plan (SCNP) and the Main Campus Plan (MCP)) will enhance or hinder current and proposed initiatives aimed at enhancing the sustainability of the UBC food system.

General Research Question:

To determine whether or not the current form of urban development being implemented and/or proposed in campus plans (i.e. Comprehensive Community Plan (CCP), Official Community Plan (OCP), South Campus Neighbourhood Plan (SCP)), and whether or not the current form of planning for UBC's academic core (Main Campus Plan (MCP)) is enhancing or hindering the transition towards the sustainability of the UBC food system.

Summary of Methodology

- Conducted a review of the Official Community Plan (Groups 5, 12), Campus Community Plan (Groups 5, 12), Main Campus Plan (Groups 3, 14) and the South Campus Neighbourhood Plan (Group 5), and related planning documents (Groups 3, 5, 12, 14).
- Conducted electronic communication with a Planner from Campus and Community Planning, Karly Henney, to gather pertinent planning information (Groups 3, 5, 12, 14).

Summary of Central Findings

Analysis of Official Community Plan (OCP)

General Description:

- The OCP was developed by the “Greater Vancouver Regional District (GVRD), UBC, interest groups both campus and non-campus related, and the general public” (GVRD, 1997 in Group 5).
- The OCP “addresses types of buildings, their location and size, along with services, such as sewer, water, electricity, fire and police protection and transportation” (Group 12).
- The OCP sets objectives for “market housing, non-market housing other than student housing, and commercial facilities geared towards non-university users” (Group 5).
- The OCP “involves the creation of a comprehensive and interactive university community that strives to balance ecological health, economic sustainability, and community relationships” (GVRD, 1997 in Group 5).

- The OCP is intended to guide “future decisions towards creating a unique UBC community and sustaining its role as a leading educational institution through achieving common objectives of the GVRD and UBC” (GVRD, 1997 in Group 5).
- The OCP “outlines the future direction of the University Community through goals and visions: protecting the green zone, building complete communities, achieving a compact metropolitan area, and increasing transportation choice (OCP, 2003 in Group 12).

Opportunities:

- The GVRD has “designated “green spaces” protected for recreation and conservation to help maintain the health of the ecosystem while minimizing adverse impacts on neighbouring areas” (GVRD, 1997 in Group 5).
- The “OCP document focuses on a compact and integrated university community through the development of an elementary school, community and village centre. The village centre will have commercial facilities geared towards the residents’ and will include food establishments such as a bakery, delicatessen, and restaurant” (GVRD, 1997 in Group 5).
- The OCP promote “an auto-restrained community and having greenways that encourage cycling and walking to potential local food sources” (Group 12).
- The vision of the OCP is “to provide more public open space, preserve green areas, and heritage landscapes can all aid in building stronger ecological and social sustainability” (OCP 2003: 4, in Group 12).
- The strongest opportunity found in the OCP “is the mention that long-term infrastructure and servicing on campus must have a minimal impact on the environment both on and off campus (OCP 2003: 21). LEED (Leadership in Energy and Environmental Design) certified buildings will lower the energy needs of the community and reduce its ecological footprint” (Group 12).

Challenges and Barriers:

- The OCP “neglects to address food security, a key component of a sustainable community” (Group 12).
- The OCP “fails to adequately define ecological sustainability”, and it “does not address the importance of ecological functions” (Group 12).

Proposed Amendments to OCP:

- Should include a section where “food is an essential service for the present and future generations at UBC” (see **Appendix F** for proposed amendments to the OCP sections). “Food services such as the AMS will thus have guidance in creating and following their sustainability mandates” (Physical Principles for Planning, 2005) (Group 12).
- The planning process could be enhanced by clear definitions of “food security”, “greenways”, “complete communities”, and a sustainable food system (OCP) (see **Appendix F** for proposed amendments to the OCP sections) (Group 12).

Analysis of Comprehensive Community Plan (CCP)

General Description:

- The CCP was “prepared in November 2000 and adopted by the UBC Board of Governors for the purpose of providing the overall parameters for development allocation within 8 local areas [North of Marine, Theological Neighbourhood, Gage South, University Boulevard, Thunderbird,

East Campus, Mid-Campus and South Campus], as well as preparing servicing and other related strategies” (CCP, 2000; UBC SCNP, 2005 in Group 5).

- The “difference between the OCP and the CCP lies in the fact that the CCP describes in more detail how the OCP’s objectives and targets will be met and outlines how the development capacity established by the OCP will be distributed within the eight local areas” (UBC SCNP, 2005 in Group 5).

Section 1: Introduction and Section 2: Existing Plans, Policies and Vision

- The “CCP is responsible for establishing the principles for detailed neighbourhood planning in the eight local areas designated for development on the UBC campus by the OCP. The documents guiding the CCP process are the OCP, Memorandum of Understanding (MOU), TREK 2000, Principles for Physical Planning at UBC, Strategic Transportation Plan (STP), and the 1992 Main Campus Plan” (Group 12).
- One of the “goals of the OCP and the CCP is to develop a plan that is consistent with the Livable Region Strategic Plan (CCP, 2000 in Group 5). The objective of this plan is to accommodate a target population of 18000 people including 9500 existing campus residents by 2021(CCP, 2000 in Group 5). With this neighbourhood vision in mind, a vibrant and integrated community which focuses on a place for people to live, work, study and recreate on the University Campus will thrive” (CCP, 2000; UBC SCNP, 2005 in Group 5).

Proposed Amendments

- The “eight Principles for Physical Planning, which are the standards against which to measure development on campus, do not make sufficient mention of either sustainability or food security on campus” (Group 12).
- Within the “Livable Region Strategic Plan” “there is no mention of incorporating a sustainable food system” (Group 5).

Section 3: Principles for the Comprehensive Community Plan

“Principles for Circulation” section:

- Includes “plans to provide primarily underground parking will leave much aboveground area for greening”. They “provide for the possibility of neighbourhood convenience commercial in each residential area, in order to reduce travel” however this was not addressed or evident in the local area plans or the implementation strategies (CCP, 2000: 8, in Group 12).

Proposed Amendments:

- It is “imperative that the type of commercial food outlet be well defined in the appropriate section to ensure locally owned, environmentally and socially responsible food outlets (see [Appendix F](#) for proposed amendments to the CCP sections) (Group 12).

“Principles for Public Open Space” section:

- Includes plans “for greenways and landscaping along all routes, public spaces and parks, and innovative storm water management and drainage systems, all of which indirectly contribute to a sustainable food system” (CCP, 2000: 12, in Group 12).

Proposed Amendments:

- However, this section “lacks a direct definition of the ecological functions of green space (see **Appendix F** for proposed amendments to the CCP sections). These functions include protecting the physical and biological integrity of the ecosystem, maintaining the natural drainage and hydrology, providing food and habitat, conserving biodiversity, providing buffers to natural habitats and connecting fragmented ecosystems (Rhode Island Division of Planning 3-5 in Group 12).

“Principles for Urban Form” section:

- Provides ample “discussion of community needs and services, ranging from crime management to sustainable technologies for minimizing energy use” (Group 12).

Proposed Amendments:

- However, there is no indication in the section of “food-related community needs such as easily accessible food outlets or the potential for urban agriculture to reduce our ecological footprint” (Group 12).

Section 4.0 and 5.0: The Local Area and Strategies for the CCP

- Section 4.0 “addresses the development plans of eight local areas consisting of North of Marine, Theological Neighbourhood, Gage South, University Boulevard, Thunderbird, East Campus, Mid-Campus and South Campus. Under each of the local areas, the CCP states different planning objectives, local area principles and density plans to meet the special needs of each individual location” (Group 12).
- In Section 4.0, under the plans for the “South Campus area lists out a number of planning objectives including developing the area as an urban village in the woods which will include a variety of housing, a village commercial centre, a community centre, elementary school, and day care (CCP, 2000: 41 in Group 5). The woods will include greenways, buffers, open spaces and the surrounding Pacific Spirit Regional Park” (CCP, 2000: 41 in Group 5). Along “with the urban village, there will be commercial areas including food services, personal services and retail outlets which are needed by residents of the neighbourhood” (CCP, 2000: 42 in Group 5).
- Also “stated although not proposed at this time is the possibility of including a working farm and community gardens integrated with an urban edge” (CCP, 2000: 42 in Group 5).
- Section 5.0 “addresses the strategies employed in the design of UBC communities” (Group 12).

“Strategy for Tree Management” section 5.1:

- Indicates “that the removal of trees is inevitable for the development of South Campus. However, the need for development must be balanced with the desire to ensure the “legacy of a healthy forest” (CCP, 2000: 54) and create a “green urban landscape” (CCP, 2000: 54 in Group 12).
- Includes mention for “the planting of trees within the newly-built communities in order to balance the number of trees removed with new trees” (Group 12).

Proposed Amendments:

- While “the goal to retain the total number of trees is laudable, it is clear that development plans in South Campus take priority over ecological issues, for example ground-based housing (CCP, 2000: 54). If housing is more dense and multi-storied, fewer trees will have to be removed to accommodate development. The ecological value of the existing forest on those lands is

significant, and housing plans need to accommodate the tremendous contribution of those trees to the local ecosystem” (Group 12).

- “It is important to include the conditions for tree retention, such as ecological values such as age diversity” (CCP, 2000: 54 in Group 12).

“Strategy for Servicing” section 5.2:

- In this section, it is anticipated that “the future challenges of increased water demands and outflow [may occur], once development is in place. The proposed biofiltration channel will slow down the flow of water and remove toxic substances, and help to combat the erosion in this area (Group 12).

Proposed Amendments

- While “several initiatives for reducing UBC’s dependence on the GVRD for water supply were mentioned, this plan addresses the *quantity* but not the *quality* of water outflow. The water flowing out of the University Endowment Lands is not only contaminated with the hydrocarbons associated with heavy car traffic, but also the many chemical pesticides used on property landscaping, that contaminate the water outflow. A plan for reducing chemical landscaping should be considered” (Group 12).

“Strategy for Community Services” section 5.3:

- This section “outlines important services for UBC neighbourhoods. The focus is put on recreational, academic and cultural facilities” (Group12).

Proposed Amendments

- Among the services deemed important in this section, “facilities for buying, preparing and enjoying food are not mentioned (CCP, 62). The majority of the neighbourhood plans do not include food outlets or grocery stores” (CCP, 2000: 17-47 in Group 12).
- “Accessibility of food in campus is crucial and it is suggested that basic shops and services should be within walking distance. This failure to address a community’s food needs contradicts one of the main visions outlined in the OCP and CCP that the campus development will reduce single occupancy vehicle (SOV) traffic to and from the UBC campus (CCP 4). Although more housing is being provided to reduce commuters, a lack of grocery outlets on campus will force people to drive off campus to acquire food” (Group 12).
- Another “area of concern is the emphasis placed on the relocation of existing agricultural and animal care facilities in South Campus (CCP 63). These operations should be recognized for their potential to be an integral part of the South Campus community and their potential to provide social and ecological benefits to community members” (Group 12).
- See **Appendix F** for other proposed amendments to the CCP sections 5.3.

“Strategies for Sustainability” section 5.4:

- In this section sustainability principles are based upon “intensive use of land, efficient development patterns, reduction of commuting and alternative travel modes on campus. This translates into more sustainable building standards and materials, recycling and treatment of gray and black water, and community planning for reduced SOV use (CCP, 2000: 66). These building and planning strategies are innovative and have the potential to reduce energy use and waste dramatically” (Group 12).

- The density plans indicated for each local area are comprehensive (Group 12).

Proposed Amendments

- The “strategies would be more inclusive of all aspects of sustainability if it were expanded to include the food system and affordability of housing” (Group 12).
- The “affordability of housing” should be considered and included in this section since in order to create a sustainable campus, the needs of low-income families and students need to be taken into account (Group 12).
- See **Appendix F** for other proposed amendments to the CCP sections 5.4.

Discussion/General Conclusions:

- Both the “OCP and the CCP are lacking elements that ensure food security on campus, and in doing so, have not addressed the needs of a complete community” (Group 12).
- “One vehicle by which the food system can be incorporated in community planning is through urban agriculture” described below (Group 12).

Proposed “Urban Agricultural Strategy” for CCP

Vision:

- Our vision in creating an urban agriculture strategy at UBC is one which “emphasizes edible landscaping, [in turn] enticing community members to become involved in their immediate environment and how it connects to the food system. Students and faculty, in particular, can take this stronger connection into their own education and research (Group 12).

General Description:

- “Edible landscaping is the use of vegetation whose products are edible in public spaces for all to enjoy. This can be fruiting varieties of apple, cherry, and plum trees and berry shrubs (SEFC Urban Agriculture Strategy, 2002). Edible landscaping adds another dimension to the aesthetic and ecological function of green space (SEFC Urban Agriculture Strategy, 2002). Being able to physically touch and consume nature as part of everyday routines promotes a stronger connection between people and the land in the urban environment” (Group 12).
- “Community gardens take food production out of the private realm and give all members of the community access to a small piece of land. Growing food not only allows people to work with the soil themselves, but also cultivates a culture around the celebration of food” (Group 12).

Implementation Process:

The following five key steps need to be taken in order for the proposed “Urban Agricultural Strategy” to be successful:

Steps	Suggestions for the Implementation of the “Urban Agriculture Strategy”
Step #1	<ul style="list-style-type: none"> • “Identify all stakeholders and institutions involved, determine how to reflect everyone’s interests and needs in the plan, and come to a formal agreement between all contributing parties. The stakeholders who could be involved are elementary and secondary schools, community representatives, UBC, UBC Properties Trust, UBC Campus and Community Planning, UBC Utilities, UBC Architecture and Landscape Architecture, UBC Farm, food service providers, grocery stores, UBC Plant Operations and UBC students” (Henney, <i>pers.</i>)

	<i>comm.</i> , 2005).
Step #2	<ul style="list-style-type: none"> • “Incorporate environmental concerns, food security and natural resource use into the planning framework, which may involve education and discussion with planners and stakeholder groups (Drescher, 2000). In terms of food security, it may be necessary to delineate what types of businesses are allowed into the area”.
Step #3	<ul style="list-style-type: none"> • “Involves providing education and opportunities for urban agriculture. This can include identifying and protecting zones for agriculture, encouraging infrastructure development needed for small-scale agriculture, creating partnerships between individuals, community groups, companies and schools, and developing school and community gardens” (Drescher, 2000).
Step #4	<ul style="list-style-type: none"> • Requires “encouraging multifunctional land use. Agriculture, forestry, education, waste disposal, water treatment, recreation and use of open space can all be achieved through numerous combinations” (Deelstra <i>et al.</i>, n.d.).
Step #5	<ul style="list-style-type: none"> • Involves addressing conflict resolution. “To accomplish the goal of enhancing urban sustainability, the community must minimize or eliminate conflict between citizens, agriculture and other resource-based activities” (Drescher, 2000). (Group 12)

Benefits and Costs of the “Urban Agricultural Strategy”:

- In the tables 1 and 2 below, is a list of the main benefits, costs and challenges associated with implementing an “Urban Agriculture Strategy” at UBC:

Table 1: Benefit Analysis to implement an “Urban Agriculture Strategy”

Benefits	
<u>Ecological Benefits:</u>	<p>Availability of local products:</p> <ul style="list-style-type: none"> • Production of food on campus would be a move towards re-localizing the UBC food system. <p>Resource use:</p> <ul style="list-style-type: none"> • Edible landscaping would maximize the use of natural material resources on campus. It would initiate more efficient use of energy, better waste management and establish a more closed nutrient cycle in the area. Composting organic waste and using it as fertilizer in the gardens is the simplest possible way of achieving this (Smit et al., 1996). <p>Energy and fuel:</p> <ul style="list-style-type: none"> • It would decrease both the need for community members to go off campus to purchase food, as well as the fuel used in transporting food onto campus. Local production would also decrease the wasteful protective packaging on food (Smit et al., 1996). <p>Biodiversity:</p> <ul style="list-style-type: none"> • Urban gardens can serve as refuge for wildlife such as soil organisms, wild plants, insects, birds and amphibians and thereby increase the biodiversity within the city environment (Smit et al., 1996). <p>Air quality:</p> <ul style="list-style-type: none"> • Green plants improve air quality through the absorption of green house gases (Stewart, 1986). <p>Soil and water quality:</p> <ul style="list-style-type: none"> • Provides permeable land to maintain natural hydrology patterns and retain topsoil.
<u>Economic Benefits:</u>	<p>Employment and opportunity:</p> <ul style="list-style-type: none"> • Increases opportunities for student employment on campus and allows for the establishment of small local food-based businesses. Circulates currency within the local area (Smit et al., 1996).
<u>Social</u>	Community awareness and participation:

Benefits:	<ul style="list-style-type: none"> Enhances awareness of food issues among community members, and creates a stronger and healthier community by increasing opportunities for participation and interaction. A sense of community between people can facilitate further collective action on issues of local importance (Smit et al., 1996). <p>Nutrition:</p> <ul style="list-style-type: none"> Locally produced and harvested food would reduce nutrient loss and decreased freshness that results from the time lag of harvesting, packaging and transportation of produce (Smit et al., 1996). <p>Sense of stewardship:</p> <ul style="list-style-type: none"> Food production restores the city dwellers' connection to nature by instilling a sense of stewardship in farming (Garnett, 1996). This sense of ownership and care for the land gives the farmers a better appreciation of the land's natural processes. <p>Aesthetics:</p> <ul style="list-style-type: none"> There is potential to improve the aesthetics on campus by greening the area and creating visually appealing gardens for food production. <p>Food and Income Security:</p> <ul style="list-style-type: none"> Increases proximity to fresh produce, reduces the amount of food that needs to be purchased from outside, and provides opportunities for the sale of produce within the community (Smit et al., 1996). <p style="text-align: right;">(Group 12)</p>
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Table 2: Costs Analysis to implement an “Urban Agriculture Strategy”

Costs and Challenges	
Financial Cost:	<ul style="list-style-type: none"> Creating usable land in an urban setting is an expensive task, as the land available is often not suitable for food production. Start-up costs include labour, the purchase of tools, equipment, seeds and the development of necessary infrastructure such as storage facilities. There are also the costs associated with the long-term maintenance of gardens, which would require financial stability of those responsible for the project. It is also important to recognize the opportunity costs of business profits that would have been gained from real estate development in the areas set aside for urban agriculture.
Labour:	<ul style="list-style-type: none"> Agriculture is highly knowledge-intensive. Staff would have to be employed to provide continuity and stability. Student volunteers would pose a challenge given the seasonal nature of the school year.
Climate and Location:	<ul style="list-style-type: none"> Implicit in the urban context of the agriculture strategy is the threat of vandalism to plants, gardens or infrastructure.
Aesthetics:	<ul style="list-style-type: none"> By-products of urban agriculture such as weeds, dust and odors may not appeal to some community members at UBC.
Safety:	<ul style="list-style-type: none"> Liability issues surrounding the improper handling and storage of food are a major barrier that needs to be overcome prior to implementing urban agriculture at UBC. There is also the risk of falling fruit and slippery, rotten fruit on walkways (SEFC Urban Agriculture Strategy, 2002).
Contamination:	<ul style="list-style-type: none"> Crops and soils may be contaminated by agrochemicals and heavy metals from non-point sources. This would have to be examined for food safety reasons.
Competition from larger farms:	<ul style="list-style-type: none"> The competition from large-scale rural farming may reduce the survival chance of a small-scaled urban agriculture project.
Stability and security:	<ul style="list-style-type: none"> Urban agriculture practices need strong land protection acts, in order to ensure land ownership and long term agricultural schemes for the farmers. Otherwise urban

	agriculture becomes a short term and insecure activity (Smit et al., 1996). (Group 12)
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Proposed Strategic Actions to Create an Edible UBC Campus:

The strategic actions listed below, if acted in conjunction with UBC Farm, “propose to create an ‘edible campus’: demonstration garden, designated garden areas, greenways and open space, food production on buildings, waste management and agriculture and landscaping management considerations” (Group 12).

Themes:	Proposed Strategic Actions:
Demonstration garden	<ul style="list-style-type: none"> • Establish an urban agriculture demonstration garden that will provide educational opportunities to community groups interested in food production. • Provide demonstrations for various urban agricultural techniques, such as rooftop production, crop rotation systems, greenhouse production, worm composting, grey water treatment, aquaponics systems and hydroponic production. • Demonstrate landscaping with native and other edible plants. • Demonstrate and encourage artistic incorporation of food into the urban landscape to increase acceptance of urban agricultural endeavors.
Designated Garden Areas	<ul style="list-style-type: none"> • Encourage community organizations, such as UBC food services, AMS food services and campus residences, to establish agricultural gardens. • Work with school administrators to encourage the development of school gardens to be integrated into the education system.
Greenways and Open Space	<ul style="list-style-type: none"> • Designate greenways and open space to perform natural ecological functions by planting native species. • Promote ‘edible landscaping’ by selecting permanent food crops. • Designate sections of the greenways for community garden use.
Food Production in and on Buildings	<ul style="list-style-type: none"> • Develop food production systems inside buildings and on rooftops, balconies and window boxes of residences, commons blocks, parkades and apartment buildings by means of gardens, hydroponics or aquaculture.
Waste Management	<ul style="list-style-type: none"> • Develop a larger-scale grey water recovery system and guidelines for recovered grey water use in landscaping on campus. • Encourage complete nutrient cycling by providing compost services to all food outlets and buildings in UBC communities.
Agricultural and Landscaping Management Considerations	<ul style="list-style-type: none"> • Establish a regulating body for the UBC food system. This body will be known as the UBC Food System Authority will have the power to enforce regulations pertaining to urban agriculture health, safety and aesthetic quality. • Delegate maintenance of permanent crops and non-edible landscaping on greenways and open spaces to Plant Operations. • Ensure that community groups with urban gardens maintain them to standards developed by the UBC Food System Authorities. • Encourage commercial and campus food facilities to purchase food from community food production operations and develop marketing strategies for local producers (Group 12).

Analysis of the South Campus Neighbourhood Plan (SCNP)

Description:

- The neighbourhood plan is the most detailed land use document to guide overall development of the South Campus Northeast Sub-Area (SCNP, 2005: 6 in Group 5).

Opportunities:

- Being the “first approved neighbourhood UBC is working on, this is an opportunity to create guidelines or procedures for future development plans” (Group 5).
- The SCNP has also included sustainability objectives, which are “based on a global concept of providing a good quality of life for all people today while ensuring future generations can also have an equally good quality of life” (SCNP, 2005: 13 in Group 5).
- In “consultation with the community through public advisory bodies, consultation events, and tools for gathering feedback, a number of community planning objectives supported the promotion of greener buildings, community gardens, small-sized shops, community grocery store, and links to the existing UBC Farm to the west” (SCNP, 2005: 11 in Group 5).
- Where “appropriate, community garden areas can be included in the plan if the residents desired it” (SCNP, 2005: 11 in Group 5).
- The SCNP “has included a solid waste management system which manages neighbourhood wastes as resources, recycles, pursues by-product synergies, and most of all, encourages composting for re-use in gardens and the landscape” (SCNP, 2005: 28 in Group 5).
- Significant opportunities were discovered in the SCNP to propose “specific and practical projects that contribute to the sustainability of food production, distribution, consumption and waste management” (Group 5) as outlined below:

1. Opportunities for Rooftop Gardens in the SCNP

Description:

- “Agricultural green roofs are rooftop gardens that are designed exclusively for food production and are different from non-agricultural green roofs (HBPG, 2002). “They range from simple containers added after a building has been completed, to beds of soil covering almost the entire roof surface installed at the time of construction” (HBPG, 2002 in Group 5).

Analysis of South Campus Neighbourhood Plan:

- A “variety of residential buildings such as apartments, townhouses, and detached homes are planned for the South Campus Town, however, there are no specific design themes intended for these structures as of yet (UBC “Sustainable Drainage”, 2005: 34-35 in Group 5). Given these facts, “implementing a rooftop garden project specifically related to agriculture could be an essential key to obtain food security in the South Campus Neighborhood” (Group 5).
- According to “UBC Environmental Assessment Program (EAP), green roof projects, including rooftop gardens, are ideally possible for most of the large commercial or multi-family residential buildings planned for South Campus Town (UBC “Sustainable Drainage”, 2005: 26 in Group 5). Flat roofs are usually more suited for green roof projects, however, pitched roofs can also be used for the same purpose” (UBC “Sustainable Drainage”, 2005: 26 in Group 5).
- “University Town will enhance the quality of life at UBC by providing places for the University community to live, work, study and play. The neighborhoods will add vitality to campus and strengthen the University’s identity” (CCP, 2000: 9 in Group 5).
- Implementing a “clear provision for rooftop gardening will help fulfill this mandate” (Group 5).

Proposed Strategies:

1. “Rooftop gardening should be implemented on all residential and commercial buildings that offer a viable opportunity;”
2. In “combination with community garden programs, programs should be created in order to raise awareness and knowledge of the benefits of community food production;”
3. “Plots for rooftop gardening should be allocated to each resident in a building—if they opt out of this opportunity, their plot will be given to other willing residents for use (Group 5).

Potential Benefits Associated with Rooftop Gardens:

Benefits	
1	<ul style="list-style-type: none"> • Can increase “community access to outdoor green space at home or at work within the urban surroundings”.
2	<ul style="list-style-type: none"> • Can contribute to enhancing levels of urban food production.
3	<ul style="list-style-type: none"> • Can encourage and create opportunities for “individual, community, and cultural diversity”.
4	<ul style="list-style-type: none"> • Can “improve air quality and reduce CO₂ emissions, delay storm water runoffs, provide a suitable habitat for birds, insulate buildings, increase the value of buildings for both owners and tenants alike, and generate better job opportunities in the field of design, research, construction, landscaping or gardening, and food production” (Hobbs, 2002 in Group 5).

Potential Challenges and Solutions Associated with Rooftop Gardens:

	Challenges	Solutions
Design	- “Access to the rooftop garden area is one of the main issues when it comes to designing buildings that will be viable for rooftop gardening, especially if the building is higher than three or four stories”.	- This “challenge can be overcome by extending the elevator shaft and the stairways to the roof deck. Such measures simply require a plan designed with applicable engineering and horticultural criteria in mind” (HBPG, 2002).
Maintenance	- Rooftop gardens require constant care and a proper management system.	- “It is ideal to have a management group involving the residents and superintendents to discuss the barriers of the project from early in the planning” (HBPG, 2002).

2. Opportunities for Community Gardens in the SCP

Description:

- Community gardens are “usually located on public lands (HBPG, 2002), and are most often managed by non-profit associations (HBPG, 2002 in Group 5).

- Community gardens can consist of “any kind of vegetation, such as vegetables, hard fruits, soft fruits, herbs and flowers” (HBPG, 2002 in Group 5).
- Currently “there are 21 operating community gardens in Vancouver, ranging in size from 0.1 acre to 3 acres” (HBPG, 2002 in Group 5).

Analysis of South Campus Neighbourhood Plan:

- “Provisions for community gardens are presently incorporated into the SCNP and will be implemented as the community is developed” (Henney, personal communication 2005 in Group 5).
- “Depending on the preferences of the residents, the community gardens will either be established in the Useable Neighbourhood Open Space (UNOS) areas or on individual residential sites” (Henney, personal communication 2005 in Group 5).
- An “association, known as the University Neighbourhoods Association (UNA, 2004), has been established in order to regulate the use of open space. It is responsible for “the ongoing development of a community for living, working and learning in a creative, healthy and interactive environment” (UNA, 2004). The UNA also acts as a liaison for the use of UBC facilities, which include community programs and recreational facilities on campus (UNA, 2004). The UNA is responsible for gathering all the residents' concerns, and raise them in the UBC community meetings (UNA, 2004). This could help shape the future development of community gardens” (Group 5).

Proposed Strategies:

- In order to increase the possibility for community gardens to become a reality in the SCNP, “it is crucial to help the residents realize all the benefits of having community gardens in their neighbourhood. Arranging monthly gatherings or organizing community festivals are some great ways to increase residents’ awareness of community issues”, which in turn can enhance the ability for residents “to raise their concerns and contribute in decision-making and the allocation of the community facilities, such as community gardens” (Group 5).

Potential Benefits Associated with Community Gardens:

Benefits	
1	• Can serve as “a great community building tool: it increases the total stock of social capital in a community”.
2	• It can “create opportunities for neighbours to work together (HBPG, 2002), and enhance their sense of identity (WCG, 2005). This not only provides chances for intergenerational connections, but also cross-cultural connections (WCG, 2005). I
3	• Can “provide safe and outdoor educational purposes for both children, and even adults” (HBPG, 2002).
4	• In the “South East False Creek Final Report, some community gardeners actually set up a “heritage seed bank” (HBPG 53), where they can share heritage variety crops that are very likely to be lost and help to reverse the decline in biodiversity” (HBPG, 2002).
5	• Can aid in “beautifying and enriching the neighbourhood” (WCG, 2005).
6	• Can “also improve food security in the community (HBPG, 2002). It can help the residents obtain a cheaper, fresher and more nutritious diet” (HBPG, 2002).
7	• Can “contribute to reducing energy and resources used, and cut down the

	pollution caused by transportation. Having more greens in the community can also decrease urban heat from streets and parking lots (WCG, 2005) and make the neighbourhood a better place to live in as a whole”.
8	<ul style="list-style-type: none"> • The “development and maintenance of the green space will be less expensive than development and maintenance of a park.” (Herbach, 1998).
9	<ul style="list-style-type: none"> • “Theft and vandalism do not largely affect community gardens in Vancouver” (HBPG, 2002 in Group 5).

Potential Challenges and Solutions Associated with Community Gardens:

Challenges	Solutions
<ul style="list-style-type: none"> • “Seeking out and distributing resources such as soil amendments, seeds and equipment could be a challenge for those who have no experience in farming” (Group 5). • “Having a low yield and an inconsistent quality of products due to the lack of knowledge and training can be another problem” (HBPG, 2002). • “Inexperienced farmers might be discouraged and begin to lose community interest” in the garden (WCG, 2005). • “Rodents or other pests can also be a concern (HBPG, 2002) as they could spread illnesses very rapidly in the neighbourhood” (Group 5). 	<ul style="list-style-type: none"> • “Professional advice could be sought from some organizations, such as UBC Botanical Garden and UBC Friends of the Garden Society”, who may be able to “provide detailed information on the following aspects of the program: <ul style="list-style-type: none"> ○ Effective farming, such as the use of seeds and equipments ○ Soil amendments, such as composting ○ Arrangement of affordable water, such as irrigation ○ Pest control” (Group 5).

3. Opportunities for School Gardens in the SCP

Description:

- A school yard “typically contains large plots of barren and unproductive landscape allocated to recreational sports and parking purposes” (Group 5).
- These barren plots can “provide enhanced learning opportunities for children and to improve nutrition through organic gardens” (Group 5).

Analysis of South Campus Neighbourhood Plan:

- The planning objectives in the SCNP “have incorporated school construction as a top priority. The school will be built in the first phase of construction of the neighbourhood plan (SCNP, 2005: 18). In accordance with the OCP, the school site will be at least 3.0 hectares in area, including land for playing fields, and located on the southeast corner of East Mall and 16th Avenue” (SCNP, 2005: 18 in Group 5).
- The “Vancouver School Board in conjunction with the Provincial Ministry of Education and the UBC Faculty of Education has yet to resolve whether an elementary school or a community school for kindergarten to grade 12 students will be developed on the site” (SCNP, 2005: 18 in Group 5).

Proposed Strategies:

- “Opportunities for learning in conjunction with the school and other public realm spaces are permitted and encouraged (SCNP, 2005: 18 in Group 5). Established upon this mandate, and the goal to incorporate a sustainable food system in the South Campus Plan, it is worthwhile to instill ecologically diverse organic school gardens in the school site” (Group 5).
- Gardens can be built at entrances to school grounds and different buildings; and alongside athletic fields, pathways, and hard surface areas (Skelly, 2005). Depending on the method of construction used, the rooftops of the school may also be used for the gardens (HBPG, 2002 in Group 5).

Potential Benefits Associated with School Gardens:

Benefits	
1	<ul style="list-style-type: none"> • Organic gardening “skills that students acquire will remain helpful throughout their lives and foster their self-efficacy in sustainable practices” (Group 5).
2	<ul style="list-style-type: none"> • Can offer “invaluable experience of caring for the natural world and creating a difference in the community will improve students' self-esteem and encourage a sense of belonging” (HBPG, 2002 in Group 5).
3	<ul style="list-style-type: none"> • Can serve as “a healthy outdoor activity that encourages a physically active lifestyle” (HBPG, 2002 in Group 5).
4	<ul style="list-style-type: none"> • Can “provide a source of nutritious foods to students” (Skelly, 2005 in Group 5).
5	<ul style="list-style-type: none"> • By “including groves of trees and other forms of sun screening on school grounds, students will be provided with effective and easily accessible shelter from harmful UV rays from all areas of the school” (HBPG, 2002 in Group 5).
6	<ul style="list-style-type: none"> • School gardens “can also be leased out to the public as demonstration gardens (HBPG, 2002 in Group 5).
7	<ul style="list-style-type: none"> • Can aid in “empowering students to make a personal contribution toward improving their community, allowing students to integrate knowledge and practical skills, nurturing the wholeness and interconnectedness of learning” (Group 5).
8	<ul style="list-style-type: none"> • Can “provide both active and passive recreational areas and add value to the entire community” (Group 5).

Potential Challenges and Solutions Associated with School Gardens:

Challenges	Solutions
<ul style="list-style-type: none"> • “At the time of its construction, if government funding for the school is not available, UBC will be responsible to build the facility and then lease the school to the Vancouver School Board to operate the facility (SCNP, 2005: 18 in Group 5). Therefore, the incorporation of school gardens may have to be negotiated with UBC. The costs of running school gardens are comparable to running public community gardens” (Group 5) 	<ul style="list-style-type: none"> • A clear agreement should be made “with the Vancouver School Board and/or UBC and development of a comprehensive plan that outlines the specific details of the gardens, including procedures to ensure adequate staff and volunteers

<ul style="list-style-type: none"> • Key “obstacles that exist to hinder the approval of school gardens include: concerns regarding the safety of the school gardens, conflicts with teacher-union contracts, aesthetics and availability of teachers and other volunteers to superintend students’ activities at the gardens, as well as to oversee the maintenance of the gardens” (HBPG, 2002 in Group 5). 	<p>to supervise the gardens and students’ activities” (Group 5).</p> <ul style="list-style-type: none"> • Security measures should be prepared “to ascertain the safety of students accessing the gardens” (Group 5). • “Local gardening stores will often donate tools, seeds, and other supplies” (HBPG, 2002 in Group 5).
<ul style="list-style-type: none"> • There “is also the issue of tending the gardens throughout the summer months when plant and weed growth is at its highest and the requirement for irrigation the highest” (HBPG, 2002 in Group 5). 	

4. Opportunities for a South Campus Neighbourhood “Village Grocery Store” in the SCNP

Description:

- The SCNP “calls for the creation of a “village” feel in the commercial centre with the placement of a community grocery store. Currently, up to about half of the permitted ground floor commercial area may be occupied by a neighbourhood-oriented grocery (approximately 3,000 m²)” (SCNP, 2005: 17 in Group 5).
- Through the “Working Group process, a neighbourhood-oriented grocery based on a Capers or Urban Fare model with a facade that doesn’t read as a ‘big store’ was seen as most desirable” (Group 5).
- The “tenancy in the village commercial centre will be controlled through leases with the University” (Group 5).

Analysis of South Campus Neighbourhood Plan:

- “Attention has yet to be given to the criteria upon which this selection process, especially for the grocery store, will be based, which is problem in terms of ensuring that residents have sufficient access to a nutritious supply of local foods” (Group 5).

Proposed Strategies:

1. “In the solicitation process, recommendations for tenancy should be made” (Group 5).
2. The selection grocery retailers “should be made upon triple-bottom line criteria, given the economic, social and environmental benefits of local and/or organic foods” (Group 5).
3. The “grocery store should be required to dedicate ‘shelf space’ to local produce, as this is a key factor which allows for responsible consumption” (Group 5).
4. The “following retailers be considered for tenancy, as they are the leading socially and environmentally progressive food companies in Vancouver: 1. Choices Markets [and] 2. Capers Market” (Group 5).

Potential Benefits Associated with a South Campus Neighbourhood “Village Grocery Store”:

Benefits	
1	<ul style="list-style-type: none"> • Can “contribute to strong links between South Campus and adjacent campus areas, including Hampton Place. Many residents would come to the village commercial centre as their primary place to shop” (Group 5).

2	<ul style="list-style-type: none"> • “Given its convenient location and proximity to people’s residences, it would allow opportunities for pedestrian and bicycle travel to the grocery, while encouraging recreation and reduced fossil fuel consumption” (Group 5).
3	<ul style="list-style-type: none"> • If the grocery stores provide seasonal local foods the “consumers can eat in season while supporting the local economy and its producers” (Group 5).
4	<ul style="list-style-type: none"> • By contributing to reductions in fossil fuel emissions, this would contribute “to the OCP’s goal of reducing traffic by 20 percent as less people drive off-campus to buy their food” at other grocery stores such as Safeway (Group 5).

Potential Challenges and Solutions Associated with a South Campus Neighbourhood “Village Grocery Store”:

Challenges	Solutions
<ul style="list-style-type: none"> • “Without the right financial and educational incentives, community members may prefer to shop at Safeway or other large retail chains, believing that a community grocery store may have higher prices and may not supply a wide selection of products including specialty items” (Group 5). 	<ul style="list-style-type: none"> • Should provide food products at competitive prices to those found in nearby off-campus retailers (Group 5).
<ul style="list-style-type: none"> • Currently, it may not be within the power of “SCNP to dictate the kind of grocery store that is to operate in the commercial centre” (Group 5). 	N/A
<ul style="list-style-type: none"> • The “build-out of this neighbourhood will occur over a long time span (5 to 10 years following plan approval), thus there may not be enough residents initially living in the South Campus neighbourhood for a financially viable grocery store” (Group 5). 	N/A

5. Opportunities for Composting in the SCP

Description:

- According to the SCNP “for the Northeast Sub-Area of University of British Columbia, South Campus community will strive to attain a high level of operation with regards to waste management” (SCNP, 2005: 13 in Group 5).
- Currently, the SCNP “states that it will have a waste management system that manages wastes as resources and will attempt to recycle as much as possible. It promises to implement strategies to encourage composting for use in gardens and the landscape through optional facilities available for households and businesses” (SCNP, 2005: 13 in Group 5).

Analysis of South Campus Neighbourhood Plan:

- In order to reach these waste management goals, the “South Campus community needs a more specific plan” (Group 5) as proposed in the strategies below:

Proposed Strategies:

1. An “effective strategy for encouraging composting would be to place a ban on the level of organic matter allowed to leave the community for landfills or incineration. For example, in 1998 Nova Scotia banned all organics from landfills and incinerators, which stimulated composting programs resulting in the creation of jobs and reuse of resources” (Good, 2005 in Group 5).

2. “Composting could be integrated into a comprehensive recycling program, where recycled materials are picked up weekly and organics biweekly by the South Campus in-vessel composting facility. A system of three different colored 32-gallon bins could be introduced to sort organics, commingled recyclables and trash. To aid the program, each house and townhouse would receive a two-gallon pail for organic matter (Good, 2005). The finished product from the in-vessel composting facility would be redistributed in South Campus’s community gardens and green space” (Group 5).

3. The SCNP “states that recycling and garbage must be provided within the building envelope of new residential buildings (2005: 40). To accommodate this, four designated chutes that take recyclables and bags of organic matter to the basement of an apartment building would allow convenient separation of recyclables and organic matter while remaining within the building envelope boundaries. The organic material would be picked up twice a week for the South Campus in-vessel composting facility, while the recyclables would be picked up weekly. This system has been used successfully in the Audubon House organized by the National Audubon Society” (Good, 2005 in Group 5).

4. In addition, a program encouraging the adaptation of worm composting for individual homes that desire to do their own composting would ease the burden on the community system. Red wiggler worms are capable of consuming a four-liter ice cream bucket of food scraps a week, and provide a clean, effective method of composting in houses, apartment buildings, and on balconies (Henderson, 1999). Currently WasteFree UBC offers worm composting workshops on a regular basis (WasteFree UBC, 2005 in Group 5).

Potential Benefits Associated with Composting in the SCNP:

Benefits	
1	<ul style="list-style-type: none"> The “system of bi-weekly compost pick up and the use of the composted material returned to the ground in the community would decrease or eliminate the need for transportation of organic material to landfills and incinerators as well as the need for outside fertilizers and soil to be brought into the community. This would decrease emissions from unnecessary traffic” (Group 5).
2	<ul style="list-style-type: none"> It can “provide cheap or free fertilizer and soil for community gardens, rooftop gardens and landscaping” (UBC Waste Management Program, 2005 in Group 5).
3	<ul style="list-style-type: none"> It can “provide an excellent educational and research opportunities” (Bourdon, 2004 in Group 5).

Potential Challenges and Solutions Associated with Composting in the SCNP:

Challenges	Solutions
<ul style="list-style-type: none"> “Contamination possibilities” (Good, 2005 in Group 5). 	<ul style="list-style-type: none"> “Problems like odors and infestation are usually the result of a learning curve of the new composting system and can be kept to a minimum if appropriate procedures are followed” (Group 5).
<ul style="list-style-type: none"> “Facility odors” (Good, 2005 in Group 5). 	
<ul style="list-style-type: none"> “Fruit fly and maggot infestation” (Good, 2005 in Group 5). 	

Analysis of Main Campus Plan (MCP)

General Description:

- The UBC Main Campus Plan (MCP) “is the product of a cumulative process of analysis and synthesis that began in 1989, and ended in its creation in June 1992 (Group 3).
- It is comprised of a set of forty planning strategies for managing the university’s growth, development and management of institutional infrastructure on the UBC Main Campus (Group 3, 14). These strategies are divided into “four sections: general, systems, land-use and implementation” (Group 3).
- The “MCP sets out the principles and strategies necessary for translating the academic, financial and community goals of the University into *physical form*” (MCP, 1992 in Group 3).
- In this strategy framework, the university mission is contextualized through a discussion of the campus’ physical image, its past, present and future” (UBC, 1992, in Group 14).
- The intent of the MCP “is to define an end, but not the means. That is to say, it ascribes mid- and long-term university planning goals (ten and twenty year horizons, respectively) without offering specificity on how to achieve these goals (UBC, 1992). This means that the plan aims to avoid constraint by maximizing planning options” (Group 14).
- The MCP “stresses flexibility and comprehensiveness, and addresses functional, aesthetic and contextual issues” (UBC, 1992, in Group 14).
- The overarching theme of the MCP “is that the whole campus is greater than the sum of its parts” (UBC, 1992, in Group 3, 14).
- The MCP “prioritizes environmental responsibility and leadership and the need to create a more permanent sense of community” (UBC, 1992, in Group 14).
- The MCP includes plans:
 - To “limit campus sprawl and to enhance the spirit of the place” (UBC, 1992 in Group 14).
 - For “mixing land uses (institutional, residential, retail commercial, etc.) and encouraging alternative modes of transportation like cycling and public transit” (UBC, 1992, in Group 14).
 - For “strategies like creating a sense of place, improving building signage, promoting campus culture and enhancing pedestrian circulation collectively aim to increase synergetic interactions between campus users and add vitality to the built landscape” (UBC, 1992 in Group 14).
 - For “constructing green buildings and reducing reliance upon automobiles” (Group 14).
 - For “mixed land uses, increased building density, and improved separation of transportation modes (like walking, cycling, bussing, and driving)” (UBC, 1992 in Group14).
 - For “a university “Town Centre” (a commercial zone along University Boulevard) as a means of facilitating a place for community” (UBC, 1992, p. in Group 14).
- The “1992 MCP was scheduled for revision in 2004/2005. However, at this moment, the exact date of its revision still has not been set. The Community & Land Use Planning Committee currently believes that the MCP is to be reviewed during 2006. At this later date, the whole document will be reviewed in detail and certain strategies will be modified or

enlarged to develop a new plan that will encompass revisions to the OCP and the comprehensive Community Plans as well” (Group 3).

Evaluation of the MCP:

- “Contradictory to the statement made on page 4 that says that the plan will remain “sufficiently current and relevant...to accommodate genuine evolution” (MCP, 1992) the campus plan has not been revised since its creation 13 years ago. With no revisions and a specific revision date yet to be determined, it is imperative that the university seriously consider updating the plan to correlate current development with the changing goals of the UBC campus” (Group 3).
- In “Strategy 3 and later on page 27 where the MCP states: “ongoing needs of the university community must be met.” The demographic changes that parallel the move towards this vision of a university “city” with mixed-use housing and a larger permanent on campus population will necessarily result in a changing definition of campus community and likewise, UBC’s ‘needs’. This metamorphosis must be reflected in the revised campus plans through broad changes that guide the creation of the updated Official Community Plan (OCP)” (Group 3).
- The “sustainability concept in current academic discourse [social, economic and ecological components] is not present in any form in the mission statement” in the MCP (Group 3).
- The “MCP reaffirms that UBC is “an educational servant and intellectual leader to Vancouver, British Columbia and the wider community” and thereby adamantly argues that development must “demonstrate high respect for the environment” in two primary ways: creating and following through on environmentally sound development plans *and* increasing the awareness of its community” (MCP, 1992 in Group 3).
- At the time the creation of the MCP in 1992, “no university planning literature even regarded the concept of a food system, or sustainability for that matter”. The MCP is typical for campus planning for the time, and “exemplifies how traditional urban planning is primarily concerned with the land use relationships between built forms and the physical environment. The MCP focuses on planning for institutional infrastructure and not the food system” (Group 14).
- The “vast majority of the MCP fails to address the food system by not contributing comprehensive strategies for system sustainability. While we realize this failure is a consequence of the plan’s flexible, yet limited context, there remains a critical vacuum in university planning in which the UBC food system ought to be incorporated” (Group 14).
- However, as listed below the MCP makes five subtle acknowledgements regarding the food system:
 1. It “references the university’s agricultural roots, which could once again be revived through more proactive campus integration with UBC Farm” (UBC, 1992).
 2. It “charges the university to be an environmental role model for the city, province and nation, which lays foundations for current sustainability initiatives and perhaps future ones that promote the transition to a sustainable campus food system” (UBC, 1992). This “pledge offers hope for incorporating sustainability into planning”.
 3. It “stresses the importance of valuing and facilitating community, through considering open pedestrian circulation patterns and public spaces that would foster interactions, as well as places for celebrating the local food system” (UBC, 1992).
 4. It “recognizes relationships between planning components – academic, financial, physical and community – that are surely relevant to food system planning in a university setting since enhancing the comprehensiveness of the food system at UBC would involve: (1) reserving

physical spaces for cultivation, distribution and consumption; (2) establishing community partnerships to sustainably meet labour requirements; (3) budgeting for the food system's shift to more sustainable protocols, and (4) integrating interdisciplinary curricula that espouse a sustainable food system ethos" (UBC, 1992).

5. It refers to "the need for even distribution of and access to food services on campus, which in fact reflects accessibility as a food security indicator" (UBC, 1992, in Group 14).
 6. Under "Strategy 10, the *Campus Landscape*, highlights the tradition of development at UBC as an academic resource stemming from UBC's agricultural roots. It is here that the MCP advocates the creation of a *Comprehensive Landscape Master Plan*. Thus, changes to the design of UBC's living environment have been anticipated and could be easily incorporated into a revised MCP" (Group 3).
- Under Strategy 7 it emphasizes that "buildings with a greater number of overlapping values" make more efficient use of the UBC landscape (MCP, 1992). But, the MCP confines landscape to "aesthetic value", thus reducing the possibility for enhancing the quality of UBC through changes to the living landscape" (MCP, 1992, in Group 3).
 - The "integrity of the diverse nature of campus uses represents the fifth theme. Strategy 13 describes how the MCP seeks to move away from focusing solely on the academic core and advocates "close proximity between different and related uses" (MCP, 1992). However, including holistic terminology in a guiding document such as the MCP does not necessarily correspond with holistic development on the ground" (Group 3).

Rationale for Including Food Systems in the Campus Planning and in the MCP:

General Planning:

- While, planners have been involved for "thousands of years in improving our shelter and more recently our air and water, most plans still lack a consideration for food. Planners need to realize the connection between the food system and other community systems (Pothukuchi and Kaufman, 2000) [since] the food system plays a central role in any community. Each member of a community participates in the food system through the consumption of food products" (Group 14).
- In "many communities a large percent of residents work directly or indirectly in the food sector. These jobs include restaurant, supermarket and tavern workers, as well as wholesalers, packagers and farmers. The income of these residents depends on the food system. Therefore, planners neglect large portions of a community if they do not plan for a food system. Ten to forty percent of household income is spent on food (Pothukuchi and Kaufman, 2000); the need for food is recognized by households and should also be recognized by planners. A large portion of household waste comes from food products; plans need to account for the assimilation of waste products in order to meet the need of many households. The proximity of food outlets to individuals of a community should also be included in food system planning. There is a need for the food system to be incorporated into planning because the food system affects everybody in the community" (Group 14).

MCP:

- Since "food plays an integral part in everybody's life, it should also play a part in the MCP", which "deals with the highest level of institutional development and without it mandating the need of a sustainable food system on campus, further plans will not follow suit" (Group 14).

- As “a leader of environmental sustainability, UBC can also be a model to many other communities by including food in a high-level plan such as the MCP” (Group 14).
- UBC is more than the buildings and the greenways that exist on campus; it also consists of an entire community that works, lives and plays in and around the institutional core of the campus (Group 14).
- It should be recognized in the MCP “holistically and that every part – even food – has its place within the broad plan” (Group 14).
- By “planning for a sustainable food system, many issues dealing with the production and delivery of food and assimilation of the waste it generates can be addressed. By planning for a sustainable food system in the MCP, UBC can also *improve* the biological and structural diversity of the campus environment” (Group 14).

Assessment of the Benefits of Urban Agriculture:

Description:

- According to the United Nations, urban agriculture refers to: “An industry that produces, processes and markets food and fuel, largely in response to the daily demand of consumers within a town, city, or metropolis, on land and water dispersed throughout the urban and peri-urban area, applying intensive production methods, using and reusing natural resources and urban wastes, to yield a diversity of crops and livestock” (Barrs, 2002, in Group 3).
- In “1993, urban food contributed to 15% of world food production” (Addison, 2002 in Group 3).
- In **Table 1** below, a list of the main benefits associated with Urban Agriculture are noted:

Table 1: Potential Associated Benefits of Urban Agriculture

Benefits	
Social Benefits	<ul style="list-style-type: none"> • Can foster connections between people, and also between people and the land since, through urban agriculture, “members of a community are brought together to produce for themselves and the surrounding community” (Group 3). • Can help people “to fight poverty and hunger within their urban context” (Addison, 2005 in Group 3).
Ecological Benefits	<ul style="list-style-type: none"> • Can help “relieve land pressures from resource draining industrialized agriculture” (in Group 3). • “Community gardens can use water and sewage waste from the surrounding community contributing to making a closed food system” (HBPG, 2002 in Group 3). • As “urban agriculture decreases the distance that food travels between producer and consumer, fuel consumption and, in turn, harmful carbon emissions that have been linked with global warming decrease” (HBPG, 2002 & Barrs, 2002 in Group 3). • Can increase urban biodiversity by providing new “habitats for birds, insects and other animals” (HBPG, 2002 in Group 3).
Economic Benefits	<ul style="list-style-type: none"> • The “convenience of local farmers markets decreases the amount of time food and people travel and related expenses” (HBPG, 2002 in Group 3).

	<ul style="list-style-type: none"> • “Urban agriculture provides people with job opportunities and encourages local economic development” (Group 3).
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Proposed Vision and Guiding Principles for the MCP:

- Based upon both the vision statement for the UBCFSP (consisting of 7 guiding principles) put together by the Project Coordinator based upon findings from previous AGSC 450 colleagues, and input from the teaching team and the other partners in the Project (UBCFSP, AMSFBD, UBC Farm, UBC Waste Management, SEEDS, and the Campus Sustainability Office) and objectives for the food system outlined in the “Southeast False Creek Urban Agriculture Plan” (Holland Barrs Planning Group, 2002) a vision statement was developed for campus planning. Overall, it was felt that the UBCFSP Vision Statement was difficult to integrate and implement in campus planning. In turn, the group created a congruent set of guiding principles, described in Table 1 below; that they believed would prove more suitable for this context. This vision was adapted to aid incorporating the food system sufficiently “into the MCP and other aspects of campus planning so that future development at UBC can operate more sustainably” (Group 14).

Table 1: Description of Proposed Guiding Principles for the MCP

Proposed Guiding Principles for the MCP	
#1	<p>Increase the physical capacity of the UBC campus to support the growing of food</p> <ul style="list-style-type: none"> • To help reduce UBC’s reliance on transportation for food products and associated large ecological footprint, the University Board of Governors and other stakeholders should determine “what steps the UBC campus is to take in order to be a leader in closing the food cycle,...analyze the different opportunities in the creation of new areas that can be devoted to the growing of food, as well as the improvement and expansion of already existing spaces, such as the UBC Farm on South Campus”.
#2	<p>Increase the amount of food consumed at UBC that is produced both organically and locally</p> <ul style="list-style-type: none"> • Campus planning should help find ways to increase the availability of locally and organically produced food for UBC consumers.
#3	<p>Encourage Practices for managing waste flows in a more sustainable manner</p> <ul style="list-style-type: none"> • While, “UBC Waste Management has had success with composting, recycling and litter reduction initiatives...as campus development continues at an accelerated rate, the expansion of these initiatives is necessary”, such as by integrating waste management practices into campus planning.
#4	<p>Encourage the celebration of food and the local food system at UBC</p> <ul style="list-style-type: none"> • “Considering the importance of food in our daily lives and the cultural, social, and nutritious implications it has, the food system remains largely invisible to the UBC community”, and thus should be made “more visible to existing members of the campus community, and expansion of programs and initiatives are needed to respond to the growing campus population” by incorporating this into campus planning.
#5	<p>Encourage food consumed at UBC that is produced in other regions or countries to be produced through ethical and environmentally sustainable practices</p> <ul style="list-style-type: none"> • While, the “UBC food system has made steps toward social sustainability, with the recent creation of the <i>AMS Ethical Purchasing Policy</i>. Other universities across Canada and the USA have implemented similar policies for their food systems. The University of Alberta’s

	<p>Student’s Union has a campus-wide policy in place to promote business relationships with suppliers that engage in environmentally conscious, socially equitable and ethical conduct (The Student’s Union of the University of Alberta, 2003). More specifically, this policy mandates for the purchase of fairly traded, recycled, organically produced and minimally packaged food products whenever the option is available”. UBC policy makers should consider implementing and advocating “for the procurement of international products from suppliers that promote both environmentally sound <i>and</i> socially sustainable business practices” in a campus-wide policy.</p>
#6	<p>Increase the capacity of UBC to provide or support basic food security initiatives for the local community</p> <p>The following components of food security should be addressed through campus planning:</p> <ul style="list-style-type: none"> • “Low income and socio-economic status are common causes of food insecurity; while most of the campus population would not be considered below the poverty line, there are subsets of the UBC community – particularly students – that may experience financial difficulties in acquiring food. • In terms of availability and accessibility, there is currently one produce market and few convenience type stores; the nearest grocery outlet is a Safeway store, which is a five-minute bus ride from UBC. For those unable to travel, food security may become an issue”.
#7	<p>Ensure that there is an adequate distribution of food service facilities on campus</p> <ul style="list-style-type: none"> • Being a large campus, “UBC needs to ensure that all areas of the campus have access to food that is consistent with the population in any given area. In providing sufficient food, UBC will encourage economic development and increased revenue, as well as decrease the need to travel off-campus in order to access these goods” (Group 14).

Proposed Urban Agricultural Strategies” for UBC Main Campus and MCP:

Three key areas have been identified for planning successful urban agriculture into the MCP and the UBC main campus: (1) Micro-gardens; (2) Education and Community Involvement; and (3) Waste Management. Each of these areas aim to “provide realistic strategies that should be considered during the current and future planning and development of a sustainable UBC community” in (Group 3) as described in Table 1 below”

Table 1: Proposed Urban Agricultural Strategies:

Area	Specific Strategies
Micro-gardens:	<ul style="list-style-type: none"> • “Small plots of land are in abundance across the UBC Main Campus, which could easily be used to grow edible plants, such as vegetables and herbs” (Group 3). • Examples of micro-gardens could include: “small plots around buildings, greenhouses and rooftop gardens” (Group 3). • “Following the development of community gardens, these areas could be placed in a “Land Trust” in order to secure their future existence” (Group 3). • The “implementation of balcony gardens could be encouraged in both existing buildings such as Macmillan, the current location of the Faculty of Land and Food Systems, and in future building development plans. Existing buildings with flat roofs make excellent candidates for rooftop gardens. An excellent example is the building

	<p>housing the “99 Chairs” restaurant located on Main Mall. Not only could food be produced from its rooftop garden, but food could also be processed and sold for consumption in the restaurant” (Group 3).</p> <ul style="list-style-type: none"> • These buildings would need to “undergo structural upgrading that could include improvements in order to support the extra weight of rooftop gardens as well as to ensure reliable waterproofing (Roseland, 1999). Future building roofs should be designed to carry plant life as well as be positioned for maximum sun exposure” (Sheltair Group, 1998 in Group 3). • The “maintenance of micro-gardens across campus could be the responsibility of volunteer students such as students from the LFC series, or as part of course requirements” (Group 3). • Benefits from these micro-gardens may include: air quality improvements with a decrease in CO2 emissions, increased efficiency in building insulation, increased economic value of buildings (Roseland, 1999), a reduction in “energy and resources used in transporting food, as well as the pollution produced from transportation” (Group 3).
<p>Education and Community Involvement:</p>	<ul style="list-style-type: none"> • The following strategy comprised of 2 components “is a comprehensive approach that links education to food processing on campus” (Group 3). • The “first component of this processing strategy is a “commercial food processing facility” (HBPG, 2002, p. 98). This would consist of a large shared kitchen equipped with basic ware such as exhaust fans, sinks, grease traps and tables (HBPG, 2002). Small food processors or caterers could rent out this space as needed. The facility might have to be subsidized in the beginning until enough tenants use the resource to cover costs of running it. To minimize costs, however, the Dietetics food lab in the Family and Nutritional Sciences building on campus could be expanded for this exact purpose. Those involved in food production at the UBC farm could then process their crops into higher value products. In this way farmers would save money because they would not have to ship their crops to far-away processors and transportation-related environmental impacts would be minimized (HBPG, 2002). Interestingly, research has shown that two people working for three days making apple-sauce from 36 cases of apples can earn the equivalent of 45 days of wages as a retail store clerk (Integrity Systems Coop Co., 1997). Thus, in addition to being a center for education and research, the processing facility could provide an income to people in the UBC community” (Group 3). • The second component of this strategy is a “Food Incubator”, which is “a training facility where food growers, processors, retailers, students and residents of UBC could gain the skills needed to practice urban agriculture on campus and enter their food system (HBPG, 2002). People can learn how to can food, where to get local food, how to compost, earn food safe certification, take cooking classes and become aware of resources offered at the UBC farm. The previously proposed

	<p>commercial kitchen could be used as this training facility for the educational purposes listed above. And, the afore-mentioned micro-gardens could provide the space and educational opportunity to showcase lessons in composting, water conservation, or gardening techniques (HBPG, 2002). Lastly, the <i>food incubator</i> is a site where food outlet owners and managers could join together to form <i>marketing cooperatives</i> that would enable them to order more of the same item to save money (HBPG, 2002). By sharing the cost of supplies, equipment and food items and with the pressure of an educated UBC community, food outlets could afford to buy local and organic produce, meats, and dairy (Group 3).</p> <ul style="list-style-type: none"> • Benefits for these strategies may include: increases in campus learning about food processing skills, increases in knowledge about the UBC food system, and increases in overall community involvement (Group 3). Finally, taking garden land plots off the market will help “protect and maintain their purpose on campus both now and in the future” (Roseland, 1999 in Group 3).
Waste Management:	<ul style="list-style-type: none"> • The “institutional area of UBC’s Main Campus should include a comprehensive composting program”, whereby “multi-purpose containers with 3 different compartments for garbage, compost and recycling could be scattered across the campus in collaboration with the existing system of waster disposal” (Roseland, 1999 in Group 3). • These “compost boxes could divert organic material from garbage cans and return the soil material into the previously mentioned micro-gardens on campus” (Group 3). • Benefits of this strategy include: decreasing the amount of solid waste produced on campus, improving plant growth, contributing to the investment in the production of food at UBC (Group 3).

Proposed Amendments to MCP

In **Table 1** below is list of proposed addendums to be made to the MCP to help facilitate the inclusion of the food system:

Table 1: Proposed Amendments to MCP

Category	Proposed Addendums to MCP (1992)
ACADEMIC ENDEAVORS	<p>Quality of Life Opinions (p. 28-29):</p> <ul style="list-style-type: none"> • Include the importance of maintaining access and availability of quality food to the campus community. <p>Facilities and Services (p. 31):</p> <ul style="list-style-type: none"> • Include food as a necessary component of both facilities and services.
GENERAL STRATEGIES	<p>Environmental Responsibility (p. 34):</p> <ul style="list-style-type: none"> • Under this heading, add a value of supporting local products (e.g. food) to minimize social, economic and ecological costs of transportation (i.e. support the local economy). If certain local products are unavailable, take initiative as an environmental leader through purchasing Fair Trade products. (E.g. make Food System a subheading of Environmental Responsibility.) <p>Signage and Orientation (p. 64):</p>

	<ul style="list-style-type: none"> • Include food facilities as an example of improving signage for buildings and “their interior facilities.” <p>Respect for Land Value (p. 70):</p> <ul style="list-style-type: none"> • Include the importance of increasing building density on campus. Also, spaces in buildings and on land should be reserved for food so that access and availability of food can be maintained. These ties in with the value of community on campus. <p>Food Waste Management (new):</p> <ul style="list-style-type: none"> • Waste (organic and other) must be dealt with in a sustainable fashion. Waste is a key component of a food system and must, therefore, be addressed in the MCP. For example, the MCP could lay the foundation for composting all organic wastes on campus.
LAND USE STRATEGIES	<p>Locations for Food Services (p. 105):</p> <ul style="list-style-type: none"> • Include a mention of maintaining choice/variety of food available. Food available from food services should be of adequate nutritional quality. <p>Locations for Green Space (new):</p> <ul style="list-style-type: none"> • Include a description of the multifunctional role of green space on campus. Other than open space (e.g. a sports field), green space can also include urban forms of agriculture, such as rooftop gardens/greenhouses and community gardens. These areas of urban agriculture should be increased and improved, while buildings should be built with the infrastructure to enable the incorporation of such green spaces on campus (Group 14).

Proposed “Supplemental Food System Plan”

- While, the group concluded that the aforementioned addendums should be incorporated to the MCP, it was felt that these changes would *not* be sufficient to adequately integrate the food system into the MCP. Consequently, the group proposed the formulation of a plan supplementary to the MCP, in which specific objectives and strategies for its implementation are discussed below in [Table 1](#). Each strategic action corresponds with the group’s proposed vision and guiding principles for the MCP. This plan, along with the addendums to the MCP “can help to guide the campus into developing a sustainable food system”, as well as “provide a framework for the inclusion of sustainability initiatives in the planning of other university campuses and communities” (Group 14).
- While a supplementary document is proposed, “the MCP still plays a pertinent role in the inclusion of food systems in campus planning. The MCP will act as an umbrella to enable the supplementary plan, and suggestions discussed there within, to be implemented” (Group 14).

Table 1: Proposed “Supplementary Food System Plan”: Strategic Actions and Principles:

Guiding Principle	Proposed Strategic Actions
1. Increase the physical capacity of the UBC campus to support the growing of food	<p>1.1 Incorporate agricultural spaces into future campus development. Some examples are community gardens (around buildings, walkways and areas such as daycares and schools) and roof top gardens.</p> <p>1.2 Improve existing infrastructure at UBC Farm to produce more food for consumption on campus.</p> <p>1.3 Reserve land for urban agriculture projects that involve the public through educational programming (in settings such as greenhouses, aquaculture and bioponics).</p>

	<p>1.4 Improve the connection that the UBC community has with the land through creating outings and activities around the Farm and through encouraging the sales and preparation of in-season foods on campus (Yale, 2005).</p>
<p>2. Increase the amount of food consumed at UBC that is produced both organically and locally</p>	<p>2.1 Increase involvement of the UBC Farm in campus food system planning.</p> <p>2.2 Seek partnerships with local producers.</p> <p>2.3 Support consumer education and awareness of sustainable ways of shopping and purchasing food.</p> <p>2.4 Promote local, organic and in-season foods.</p> <p>2.5 Seek partnerships with local producers such as dairy producers (Tonachel & Seeley, 2000) and vegetable farmers.</p>
<p>3. Encourage practices that manage waste flows in a more sustainable manner</p>	<p>3.1 Educate students about waste management and incorporate it into school curriculum.</p> <p>3.2 Encourage and expand re-usable container and utensil use in cafeterias and food outlets.</p> <p>3.3 Encourage UBC to make a commitment that reflects the values of ECOTrek by reducing energy and water in the food establishments (reducing their ecological footprint) as well as by expanding composting.</p> <p>3.4 Educate different groups on campus about the importance of a sustainable food system and how waste management is a part of that. It is hoped that this will promote participation so that UBC Waste Management (who is actively looking for better ways to improve) can expand their services on campus. (Currently what is holding back UBC Waste Management is not lack of resources but lack of campus-wide participation).</p> <p>3.5 Through education, develop further partnerships with UBC Waste Management; currently they have partnerships with UBC Farm, UBC Campus Sustainability Office, Faculty of Bio-Resource Engineering and Health, Safety and the Environment.</p> <p>3.6 Expand UBC Waste Management’s small scale and large scale composting as well as their recycling initiatives.</p>
<p>4. Encourage the celebration of food and the local food system at UBC</p>	<p>4.1 Increase awareness and food system literacy – educate the campus community about the value of local food systems, including the origins of food and its disposal methods.</p> <p>4.2 Promote the UBC sustainability pledge as a way of educating the campus community.</p> <p>4.3 Incorporate food system research into all educational programs on campus, and not just Agricultural Sciences.</p> <p>4.4 Products and services that cause least harm to the environment should be the least expensive.</p> <p>4.5 Showcase foods from UBC and other local producers at a “farmer’s market” on campus, such as in the Student Union Building (SUB).</p> <p>4.6 Organize activities and events to increase the awareness of food system sustainability</p> <p>4.7 Introduce signs that indicate “food here” (similar to highway signs) and add these to the new building signs on campus. This will improve the awareness concerning which buildings on campus contain food facilities.</p>
<p>5. Encourage food consumed at UBC that is produced in other regions or</p>	<p>5.1 Maintain current partnerships with ethical business partners.</p> <p>5.2 Seek and develop more business relationships with ethical business partners.</p> <p>5.3 Expand the <i>AMS Ethical Purchasing Policy</i> to include the entire UBC</p>

<p>countries to be produced under ethical and environmentally sustainable practices</p>	<p>campus food system.</p> <p>5.4 Increase the variety of Fair Trade food products sold at UBC.</p> <p>5.5 Increase awareness of the UBC population about ethical food issues and environmental sustainability, in order to create consumer demand for sustainable products.</p>
<p>6. Increase the capacity of UBC to provide or support basic food security initiatives for the local community</p>	<p>6.1 Analyze the demographics of the UBC population to determine reasonable food prices.</p> <p>6.2 Develop an on-line survey to assess the current level of satisfaction with the UBC food system’s ethnic diversity.</p> <p>6.3 Use on-line survey data to evaluate the feasibility and demand for culturally appropriate food products at UBC.</p> <p>6.4 Explore the feasibility of incorporating a local grocery outlet into future campus development.</p> <p>6.5 Explore the feasibility and demand for a large-scale, on-line grocery delivery service, such as SPUDS, at UBC.</p>
<p>7. Ensure that there is adequate distribution of food facilities on campus</p>	<p>7.1 Analyze current development plans to ensure that adequate numbers of food facilities are included.</p> <p>7.2 Analyze current distribution of food facilities of campus to determine areas of growth.</p> <p>7.3 Implement planning policy guidelines, stipulating “x” number of food service facilities required within a certain land area on the UBC campus.</p> <p>7.4 Develop primary research on food demands on campus in order to ensure all forms of sustainability, including economic (Group 14).</p>

Proposed “Supplementary Food Plan” Consultation Process:

- Currently, “the development approval process for institutional land only requires an advisory design panel review and a technical review along with a public meeting (UBC University Town, 2005b). Then amendments are made before it is sent to the Board of Governors for final approval” (Group 14).
- The “Supplementary Food Plan” consultation process should “take elements from the non-institutional consultation processes to ensure that all stakeholders are involved” (Group 14).
- Since the “food system at UBC encompasses the whole university, it should receive a longer consultation process. For the neighbourhood planning process, both a technical advisory committee and an advisory planning committee (APC) – made up of stakeholders – is involved in the process multiple times (UBC University Town, 2005c). As well, numerous public meetings are held and the plan is revisited many times before reaching a draft for final consultation. The neighbourhood planning process ensures that public opinions are heard through the APC and public meetings. Although this process takes much longer, it ensures that a plan with as big of an impact as the food system will have input from all parties. Since the approval process is lengthy, it is important to devise a working draft as soon as possible so that the food system may be given adequate consideration in campus planning as soon as possible” (Group 14).

Summary of Recommendations

audience	Recommendations
<p>2006 AGSC 450 Class</p>	<ul style="list-style-type: none"> • Analyze “our objectives and strategies for the Supplementary Food System Plan and look for areas that may need to be improved or more detailed. For example, the economic feasibility of implementing our

	<p>objectives has not been extensively assessed and could benefit from further examination” (Group 14).</p> <ul style="list-style-type: none"> • Work with “key sustainability leaders and stakeholders on campus, in drafting the Supplementary Food System Plan. This includes the UBC Campus Sustainability Office, UBC Food Services, AMS Food and Beverage Department, UBC Waste Management and UBC Farm. The aim of this plan should be (1) to reach concrete solutions to fulfill the objectives (vision) proposed in this document, and (2) support the enhancement and integration of current sustainability initiatives on campus” (Group 14). • Work together with “other faculties, such as Engineering and the School of Community and Regional Planning, to increase the food sustainability on campus” (Group 14). • Should be provided with “the opportunity to work more closely with UBC Properties Trust and Campus and Community Planning so that a realistic and mutually beneficial plan may be created”, such as our proposed “Urban Agriculture Strategy”, or other proposed amendments to include food, “water, air, transportation, and waste management” components to plans (Group 12).
<p>AGSC 450 Teaching Team</p>	<ul style="list-style-type: none"> • Should modify the “Food Systems Indicator Model to include some key indicators so that it can be used to assess the progress of development at UBC. These indicators are: the distance that people must travel to acquire food; the total production of school and community gardens; the number of gardens; the number of students directly involved in food production; and quality of water outflow. (Group 12) • Should create scenarios where groups explore any of the following topics: “enforcing environmental building standards, improving accessibility of community members to food outlets, and regulating the types of food outlets on campus” (Group 12). • Should create a scenario, based upon our “How-To-Guide” package (see Appendix F) developed for future use by AGSC 450 students (Group 3).
<p>Campus Community Planning</p>	<ul style="list-style-type: none"> • Should consider incorporating our proposed addendums to the MCP, and adopting the “Supplementary Food Plan” as well as incorporate other sustainability initiatives as deemed fit (Group 14). • Should consider formulating and implementing a “food and agricultural” strategy which “includes specific guidelines for actions address the following five components: <ul style="list-style-type: none"> ○ Community gardens ○ School gardens ○ Rooftop gardens ○ Local food procurement ○ Waste management” (Group 5).

Overview of 2005 Spring Scenario #5: UBC Farm: Exploring Alternative Routes to Enhanced Viability

Summary of Specific Problem Definition

The UBC Farm is currently not financially viable; it is characterized by operating costs that exceed its actual revenue. The Farm could increase its revenue if it establishes *stronger* market relationships with UBC food providers, participating in a co-op or other collaborative entity (i.e. local farmer's market) and possibly by creating a Community Supported Agriculture (CSA) program. However, numerous barriers currently exist that prevent the formation of these relationships, such as a lack of knowledge about the feasibility, benefits and drawbacks of increasing or forming these relationships.

- “The issue of financial viability is of great concern to the UBC Farm because it must present itself as a successful venture, especially in the face of new threats, such as the newly proposed South Campus Plans for 2012” (Group 10).
- The Farm’s “Market Garden runs an annual deficit. It seems reasonable to attempt to earn roughly \$50,000 from the market garden (and related agricultural endeavors) for the food production element to break even” (Mark Bomford, personal communication, March 10, 2005 in Group 2).
- While the UBC Farm has many “small research projects underway, the farm is in need of a central research theme into which various academic programs can fit” (Bomford, Pers. Com. in Group 10).
- Currently, “the success of agroforestry at the UBC Farm is constrained by poor funding and limited human labour” (Group 2).
- “The Market Garden is not financially viable in part because the cultivated area of the Farm is small and cannot benefit from economies of scale... [yet] the Farm cannot afford any new machinery given its current revenues. These factors combined trap the Farm’s production in a negative economic cycle” (Group 2).

General Research Question:

To explore and assess ways the UBC Farm can become a financially viable operation (CSA, contractual agreements with campus and off-campus food providers, co-ops, collaborative entities, alternative production plans, etc.) and at the same time be a place for learning, action and a site of sustainable agriculture.

Note: After Group 10 began working on their assigned scenario, which a large component included implementing a CSA program at UBC with the Farm, we found out that the UBC Farm team had already decided to implement a pilot CSA program in the summer of 2005. Based on this new knowledge, Group 10 retailored their tasks towards finding ways that they could help the Farm implement the CSA program this summer as well as in the future. They also explored how the CSA program could be integrated into UBC curriculum.

Summary of Methodology

- Conducted a literature review of secondary sources, including former AGSC 450 papers (spring 2004 Groups 9 and 14, and summer 2004 Group 4) and general outside sources (Groups 2 and 10).
- Held face-to face interviews with UBC Farm Program Coordinator (Groups 2, 10), and with the Sage Bistro Manager (Group 2).
- Communicated via email and telephone with UBC Farm Staff (Groups 2 and 10), and UBC Food Providers (Group 2).

- Distributed a survey (See **Appendix B**) to local restaurants to “determine whether there is a market niche for specialty crops and support for the UBC Farm among local restaurants”. The survey was based upon a one distributed by the North Carolina State University at the beginning prior to launching a “Specialty Crops Program” which found conclusive results to successfully launch the Program (North Carolina State University, 2002 in Group 2). The “food varieties included in the survey were chosen from a list of high-demand specialty items provided by Sage Bistro and were selected based on the crops’ suitability to Vancouver’s climate and the constraints of the UBC Farm soil” (Group 2).

Summary of Central Findings

Literature Review

Review of UBC Farm and Current Farm Projects:

- The Farm’s total yearly operating costs for education, research, food production and community outreach is approximately \$150,000 (Mark Bomford, personal communication, March 10, 2005 in Group 2).
- “In 2004, farm products incurred \$30,000” but needs to bring in about \$50,000 for the Market Garden to break-even (Mark Bomford, personal communication, March 10, 2005 in Group 2).
- Some of the “most notable farm projects include the Market Garden, the Musqueam Community Kitchen Garden, the Honeybee Project, the Mayan Garden, and the elementary school programs”(Group 10).
- The Mayan Garden “supplies traditional medicinal and nutritional plants to the Maya Cultural Education Society and community” (UBC Farm, 2005 in Group 2).
- The “Musqueam Community Kitchen Garden plot is managed by students and nutritionists from the Musqueam First Nation. The garden supplies produce that meets specific nutritional needs such as diets that are compatible with diabetes” (UBC Farm, 2005 in Group 2).
- The UBC Farm Bee Project sells honey and beeswax to the public (UBC Farm, 2005 in Group 2).
- The UBC Farmer’s Market offers over sixty types of fresh vegetables, fruits, berries, herbs, flowers, eggs, and honey from the Market Garden at Saturday markets from May to October. Most of the products sold are grown using organic farming methods and “many of the crop varieties are rare and reflective of our local agricultural heritage”. (UBC Farm, 2005 in Group 2).

Review of Community Supported Agriculture (CSA) Programs:

Definition:

- CSA “is a subscription market system... [where] community members pre-pay for a season of fresh produce from a local farm” and in turn the farm typically gives members weekly or bi-monthly boxes which are delivered or picked up (Halman, n.d. in Group 10).
- Member’s share goes towards “paying for seeds, fertilizer, water, equipment maintenance, and labor” (Roth, n.d. in Group 10). In return members will receive assorted produce boxes where typically “if production is high, the consumers can share extra harvests, and if the production is low due to severe weather, insect, diseases or pest, “they have to share these losses in terms of reduced harvest allotments” (Halman, n.d. in Group 10).

- Two main types of CSA exist:

(1) Participatory CSA

- Members are involved significantly in the program by assisting in CSA activities such as “budget preparation, harvest scheduling, harvesting, distribution of products, and may have some choice as to the contents of their box”.

(2) Farmer-directed CSA

- “Farmers make most of the decisions and the participants have minimal involvement” (Halman, n.d. in Group 10).

Advantages:

- Farmers have a guaranteed market before s/he plants his/her crops, by receiving orders and payments prior to planting.
- Farmers are able to share risks with CSA members, enhancing financial security.
- Farmers are able to focus more on production than marketing.
- Members benefit by being “able to eat fresh, local produce at a reasonable price and at the same time have an opportunity to bond with local suppliers”.
- Members can also experience “hands-on learning through sharing on-farm work”.
- Enhances support for local economies and families.
- Environmental benefits from CSA often include: encouragement of polycultures, organic production, supporting increased biodiversity, and resource recycling (Group 10).

Disadvantages:

- Farmers must conduct much detailed planning in advance to decide the best time to plant crops to ensure member’s needs and wants are met (Group 10).
- CSA programs also “involve added labour and time, due to packaging and delivering boxes, and the many hours spent bookkeeping” (Group 10).

Review of Proposed Visions for the UBC Farm:

- The UBC Farm Team envisions the Farm as a “model of small-scale, diversified and sustainable agriculture centre, serving its immediate community and beyond” (in Group 10).
- Summer AGSC 450 Group 4 proposed that the vision for the UBC Farm should be “to transform itself into a financially viable, academically integrated, agroecological model farm that enhances the local food system, builds social capital, and functions as the centre piece of sustainability at the University of British Columbia” (in Group 10).
- Group 10 proposed that the vision for the UBC Farm should consist if it “becoming financially viable, being an integral part of the campus food system, distinguishing itself as a place of action learning, and being recognized as a model for sustainable agriculture”.
- Another vision for the UBC Farm is that it be developed for residential housing. It is currently “part of the university’s ‘Future Housing Reserve’ and although it would require an amendment to the Official Community Plan, it could be developed as soon as 2012” (UBC OCP, 2003 in Group 2). The Farm has “prime real estate value estimated at four to ten million dollars an acre” (Magee, 2003 in Group 2).

Review of Other Campus Farms:

Farm	Location	Description of Activities (campus production plans, CSA)
Calhoun Field Laboratory	Clemson University, South Carolina.	<ul style="list-style-type: none"> • Farm was established in Spring 2001 • 80 acre farm • Farm offers a student run Campus Farmer’s Market, which sells fresh vegetables, cut flowers, and herbs grown on the farm between noon to 3pm every other Friday in the spring and every Friday in the summer. “Some produce are only sold in the market and is not included in the CFL-CSA program produce box and vice versa”. • “CSA program maintains 5 acres, which is in transition to organic certification” • Offers a CSA Program: <p><u>History:</u> Campus Supported Agriculture, a modified version of Community Supported Agriculture, was initiated in summer 2002.</p> <p><u>Season:</u> October 6 to November 17</p> <p><u>Boxes:</u> Contains fresh eggs, flowers, herbs and 5 pounds of vegetables and is expected to provide for a family of 4.</p> <p><u>Cost:</u> Membership entails a non-refundable donation of \$175 (7 weeks) plus a one-time refundable deposit of \$15 for the 2 produce bins used for pick-ups.</p> <p><u>General:</u> Members can pick up boxes on a weekly basis on Wednesday’s from 4:30pm to 5:30pm.</p> <p>The “CSA program is only available for individuals or families living in the university community, to purchase shares or to exchange labor for fresh produce from Calhoun Field”.</p> <p>“Only 20 memberships are available, based on a first-come-first-serve basis, and are purchased before the season starts”.</p> <p>Members “receive weekly newsletters with news about what is in their box, what is happening at the farm, recipes for the weekly produce, and it also serves as an invitation to visit or work on the farm”.</p> <p>The CSA “program offers an opportunity to teach Clemson students about the management, production and marketing of products from the farm”.</p> <p>The CSA program offers an “after-school gardening program called Sprouting Wings to elementary and high school students and now consists of over 40 students and other community volunteers”.</p> <p>The farm holds two types of summer day camps for “elementary school students to help them better understand nature and gardening” (Group 10).</p>
Harmony Valley Farm	Southwestern Wisconsin	<ul style="list-style-type: none"> • Offers a CSA, containing a variety of programs, including a “Vegetable Program” and a “Fruit Program”. <p>The “Vegetable Program” is described below:</p> <p><u>Season:</u> May to mid-December</p> <p><u>Boxes:</u> Content quantities vary from 10 pounds in the spring and up to 20 pounds in late summer, and are expected to provide for a family of 4.</p> <p><u>Cost:</u> 30 boxes for \$640 (\$21 per box).</p> <p><u>General:</u> 3 delivery options: 1 box every week, 1 box every other week, or 17 boxes during the peak season only.</p> <p>The “Fruit Program” is described below:</p> <p><u>Season:</u> 6 weeks in the summer, and 6 weeks in the winter.</p> <p><u>Boxes:</u> Contain a variety of ready to eat fruit and fruit that will ripen over the next 3-10 days</p> <p><u>Cost:</u> Costs more than the Vegetable Program</p> <p><u>General:</u> Deliveries every other week (Group 10).</p>
McGill	McGill	<ul style="list-style-type: none"> • Earns farm “revenue from the delivery of its own curricula. Forty agriculture

University Farm	University, Montreal, Quebec	students from McGill participate in a program where they receive academic credit for milking their farm's dairy cows (McGill, 2005, in Group 2).
Nathan Creek Organic Farm	Abbotsford, BC	<ul style="list-style-type: none"> Offers a CSA Program: <u>Season:</u> Mid-June to end of November <u>Boxes:</u> Contain assorted produce <u>Cost:</u> Full share (20 boxes) is \$550; half share (10 boxes) is \$350; \$25 bin fee <u>General:</u> Customers receive box discounts if they renew their membership who to receive discounts. "Many members help plant, weed, and harvest their food". "Types and amounts of crops planted each year reflect customer preferences". Pick up locations are offered at SFU, at the Farm gate, and at Main Street, Vancouver. "In 2004 the CSA provided 30 full shares and 20 half shares" (Group 10).
North Carolina State University Farm	North Carolina State University, Raleigh, NC	<ul style="list-style-type: none"> Has successfully launched a "Specialty Crops Program" (Group 2).
Thurston Organic Farm	Dunsford, Ontario	<ul style="list-style-type: none"> 9 certified organic acres Offers a CSA Program: <u>Season:</u> June to October <u>Boxes:</u> "Contain a variety of 10-15 items from 30 different crops" <u>Cost:</u> Single share is \$340 and will provide for 1-2 people. The family share is \$590 and will provide for 3-4 people <u>General:</u> "If a pick up is missed, the box is donated to local food bank or composted" (Group 10).
University of California Farm	University of California, Santa Cruz, California	<ul style="list-style-type: none"> Demonstrated that "pursuing a twin mandate of research and farm production is possible. It has extensive research facilities but also cultivates twenty-seven acres of organic produce under, which it sells at a local CSA" (UC, 2005 in Group 2).
Waltham Fields Community Farm	University of Massachusetts, Waltham, Massachusetts	<ul style="list-style-type: none"> 56-acre certified organic farm The Farm's "mission is to preserve the historical and ecological integrity of the farm, as well as promote it as a place where the public can learn about urban agriculture, community-based food systems, and regain a connection with the land". The Farm faced a "similar situation to the UBC Farm - it was facing financial difficulties and lacking academic integration". in a similar situation to the UBC Farm - it was facing financial difficulties and lacking academic integration. Offers a CSA Program: <u>History:</u> "CSA started in 1997, as a project to help save the farm, initially with 150 participating families and deliveries to local pantries and shelters". <u>Season:</u> June to October or November <u>Boxes:</u> Contain a "variety of freshly harvested vegetables, as well as pick-your-own produce such as peas, beans and cherry tomatoes are offered at the farm". Shares also include a pick-your-own bouquet of flowers. If an additional fruit share is purchased boxes also contain a "variety of apples, peaches and pears". <u>Cost:</u> Single share is \$500 (21 boxes), and is designed to feed 2-3 vegetarian adults or 4 adults with mixed diets. Payments either consist of a single pre-payment before a season in advance or can be made in two installments. An additional share can be

		<p>bought at \$65 for a variety of fruits to be included in boxes between mid-august to end of October.</p> <p><u>General:</u> Shareholders can pick up their boxes every week on Sunday or Thursday evenings.</p> <p>Farm has 250 shareholders and also relies on “volunteers from schools, churches and social service agencies to come to the farm and work”.</p> <p>The Farm “partners with an orchard offering a Fruit Share from mid-August through the end of October” (Group 10).</p>
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Increasing Existing Collaboration with Campus Food Providers and Creating New Business Collaborations with Off-Campus Food Providers

An introductory survey of fine-cuisine restaurants in the Point Grey community was developed [see **Appendix B**] to assess what special produce might be desired by chefs at 3 restaurants. After receiving suggestions from the Manager of Sage Bistro, John Flipse to conduct an “investigation of crops that local chefs cannot find – for example, heritage crops, edible native plants, and anything of unusual colour”, an internet research was performed to help “determine which of the special crops could be grown given the constraints of climate, soil, labor, capital and funding at the UBC Farm” (Group 2). Also, the UBC Farm Program Coordinator, Mark Bomford, “provided a list of the Farm’s best-selling produce so we could determine which of the crops (if any) requested by the chefs was already in production” (Group 2). Based upon consultations with the Manager of Sage Bistro, John Flipse, Sprouts staff, as well as off-campus Point Grey chefs, and the results of the survey the following was found:

Sage Bistro (fine-dining UBC restaurant):

- Purchased approximately \$4000 of the UBC Farm’s food items in 2004 (Group 2).
- According to Mr. Flipse, they are committed to buying “as much produce as [the Farm] can grow” (Group 2).

Sprouts UBC Food Co-op:

- Sprouts staff were approached to determine whether or not they would be interested in purchasing specialty items from the Farm. The “management of the store concluded that currently there is no demand for specialty items among their customers and that most novelty products end-up as waste” (Group 2). Thus, while Sprouts’ management indicated that they are not interested in ordering specialty Farm products, they “will continue to order only the most popular products”.

Provence Mediterranean Grill (fine-dining restaurant):

- The restaurant “imports specialty items within Canada and from the United States. These include items such as field mint, baby carrots, Japanese eggplants, black raspberries, oyster mushrooms, wild strawberries, shiitake mushrooms, and vanilla beans” (Group 2).
- “After talking to the Food Import Manager of Provence Mediterranean Grill, Justin Faubert, we found that he would be interested in purchasing specialty food items and regular produce from the UBC Farm. However, he has never done so as he is unaware of the UBC Farm’s production capabilities” (Group 2).

The Naam (vegetarian restaurant along West 4th):

- The Naam “is interested in buying organic crops from the Farm. However, they are not interested in the purchase of specialty items, which are too exotic for their cuisine. Instead, they would like to purchase items such as potatoes and onions” (Group 2).

West Point Organic Produce (organic retail shop along West 4th ave.):

- The store “sells specialty foods such as baby carrots, snow peas, sugar snaps peas, shiitake mushrooms and Asian bok choy” (Group 2).
- “Though we did not have the chance to speak with the owner or manager, we believe that a potential collaboration could exist between West Point Organic Produce and the UBC Farm, given their close proximity to each other and their shared organic vision” (Group 2).

General:

- “Local chefs have little knowledge of the Farm’s crop selection and therefore, do not buy its products” (Group 2).
- In some cases, growers can receive a minimum of 10 percent increase in profit over wholesale terminal prices for standard items at mainstream restaurants (Colorado State University, 2003 in Group 2).
- Upscale restaurants and specialty stores are often willing to pay higher prices for quality produce and hard-to-get items (Colorado State University, 2003 in Group 2).

Proposed Agroforestry Opportunities for the UBC Farm:

- Responses from the Survey indicated that “there is a potential local market for non-timber forest products, but any attempts at agroforestry need to involve a well-researched, well-funded, long-term commitment” (Group 2).
- “Our research (supported by responses from our restaurant survey (see [Appendix B](#)) suggests that edible native plant production (elderberry, soapberry, wild onion, wild ginger, etc.), mushroom production, and landscape tree/herb/shrub production could profitably satisfy a local niche market *and* could create exciting research opportunities (Small Woodlands Program of BC, 2001). Agroforestry ecosystems can “enhance forest biodiversity, animal habitat, soil nutrient cycling, water conservation, and microclimate stabilization” (Kurtz, Garret, and Slusher, 1996 in Group 2)

Proposed Alternative and Enhanced Production Plans for the UBC Farm

Animal Production:

- A project to produce specialty eggs is currently being implemented at the UBC Farm. “Eggs will be sold at the UBC Farm Market, Sprouts and the MacMillan building for \$5.00/dozen in reused cartons (the break even price for the first year is \$4.69/dozen). The first year sales are projected to be \$6586.67 with a net income of \$406.35 and the second year projection is \$7866.67 with a net earning of \$678.13” In the current egg production plan, “the flock will consist of 80 birds and will not exceed 99 birds. However, unlike other small producers, because UBC Farm is legally structured as a research institution, it is exempt from the 99-bird quota limit, which leaves room to expand the flock in the future” (Group 2).
- It was found that “currently in BC, the demand for specialty eggs (particularly organic, free range) exceeds the supply (BC Egg Producers Association, 2005)” (Group 2).

- If the UBC wished to increase its flock to increase its market share, the farm would have to increase labour and infrastructure investments, since the “current hen house cannot accommodate more than 85 birds and higher egg volume would require more handling” (Group 2).
- The production of eggs will provide “research opportunities and create an experiential learning environment in the areas of animal science, animal management and animal welfare” (Group 2).
- In sum the “production of specialty eggs has the potential to increase the revenue of the UBC Farm as currently in BC, and the demand for specialty eggs (particularly organic, free range) exceeds the supply” providing UBC Farm with a future market if it wants to expand its flock (Group 2).

Proposed ways to Raise Funds for a New UBC Farm Tractor:

- One way of increasing revenues for the UBC Farm is to expand production, “but this is not possible without at least one additional tractor...[also] the Farm’s existing tractor will soon need to be replaced (Bomford, personal communication, March 21, 2005 in Group 2).
- The Farm could increase its revenue by raising funds through donations or industry partnerships to purchase a new tractor. However, the UBC Farm Program Coordinator, “advised that the attainment of a tractor is not an appropriate project for our group because the research process could prove to be lengthy, because UBC must follow a specific fundraising protocol that ensures a professional donor relationship, and because the individual who secures the donation must maintain a connection with the donor over a number of years” (personal communication, March 21, 2005 in Group 2). Thus, “an individual or group is needed to commit to a long-term industry partnership or fundraising campaign” (Group 2).

Expand current Production for Specialty Item Production:

While the responses from the survey demonstrated that there is indeed a market niche for UBC Farm specialty items among local high-end restaurants, upon communication with the Farm Program Coordinator, he “indicated that many of the specialty items on the survey are either being produced currently, or have been attempted unsuccessfully in the past”, leading to the conclusion that “the specialty crop program at the UBC Farm must be expanded beyond its current scale in order to increase the farm’s revenue” and meet this demand (personal communication, March 16, 2005 in Group 2). Given the “constraint of limited cultivatable lands on the UBC farm, planting specialty crops that yield higher profit appears to be one of the most efficient ways to improve the profitability of the UBC Farm” (Group 2). Below is list of potential ways to increase production and Farm revenue:

- **Using 3 hectares of the currently uncultivated land:**
 - Create Organic green houses to enable year-round production as well as to increase the value in innovative agricultural research (Group 2).
 - “Investments should be made on research of suitable production methods for some of the high-margin, high-demand crops such as shiitake mushrooms and oyster mushrooms, which were either produced unsuccessfully in the past or have not yet been attempted” (Group 2).
 - Increase production of specialty items by guaranteeing an expanded local market for these items. A marketing team could be hired to “contact potential major customers and advertise for the UBC Farm in the local neighborhood... as well as to establish better communications on the types and availability of produce at the UBC Farm” to facilitate

- increased market collaboration (Justin Faubert, Provence Mediterranean Bar and Grill, personal communication, March 22, 2005 in Group 2).
- To further aid in developing a market niche for UBC Farm specialty items, the “UBC Farm website could be improved to allow feedback from customers, so that the changing needs of the buyers can be met” (Group 2).
 - “At the launch of the official Specialty Crop Program at the UBC Farm, demonstration booths could be set up on the farm to which local businesses and residents could be invited to sample the products and be familiarized with the value and mission of the Farm”(Group 2).
- **Using the remaining 2 hectares of uncultivated land:**
 - The remaining 2 hectares of uncultivated land should be used to produce strawberries for the following reasons:
 1. “There is a great demand for strawberries in Canada. Presently, Canada consumes far more strawberries than it produces, thus importing the majority of purchasable strawberries from California, Florida, Poland and Mexico.
 2. Strawberries have the fastest positive return in three years with the lowest initial cost during the first two years. Under the current circumstances, this is exactly what the UBC Farm needs, fast returns with low investment.
 3. Strawberry farm-sale prices have increased by 42% over the last four years” (BCMAFF in Group 2).

Implementing a Community Supported Agricultural Plan at UBC

Current Plans for the Pilot Summer 2005 CSA Pilot Program:

The Farm Team is already aware of many regular market customers who are interested in becoming participants in the summer CSA pilot project. The Team decided to limit the number of members for the pilot to between 10 and 15, and aims to offer one size of box. Because the pilot project will be limited to a small number of partners (10-15), only one size of box that can feed between 2 to 3 people for a week will be offered (Group 10). The crops that will be grown for the summer pilot CSA program include: “artichoke, beans, beets, broccoli, carrots, cauliflower, celery, celeriac, corn, cucumber, eggplant, radicchio, fennel, kale, leek, lettuce, signature salad mix, peas, peppers, radishes, turnips, spinach, squash, Swiss chard, tomato, tomatillos, and various herbs” (Rekkin, Pers. Com., 2005 in Group 10).

Proposed Ideas for the Summer 2005 Pilot CSA Program:

Season:

The pilot could “be run during the same months as the Saturday markets from June to October” (Group 10).

Box Contents:

The Farm Team should set the box items for the pilot project. The “items for the CSA pilot project should consist of the crops already grown for the market, and should focus on freshness as opposed

to perfect aesthetics”. Based upon Nathan Creek Farm’s CSA program, each container should contain “at least eight to twelve different types of vegetables, herbs, and fruit each week” (Nathan Creek Farm, 2005 in Group 10). Organic fruits and vegetables that are currently not being produced on the Farm should be offered to members by the UBC Farm expanding its partnerships that it currently holds with other farms to the CSA pilot program (Group 10).

Information and Research:

An informative brochure, a customer feedback form and an end of the season customer survey were produced with the hope that they will be included in the CSA containers. Specifically, the first box distributed in the season should contain a brochure about the CSA program (see **Appendix E**), and every box throughout the season should include a comment form (see **Appendix B**) to “allow partners to continually provide feedback to the farm, rather than having to remember and recall their suggestions at the end of the season” (Group 10). Prior to the end of the season, an “End of the Season” survey (see **Appendix B**) should be provided in all containers, to “allow partners to reflect back on the entire CSA experience and share their thoughts” (Group 10). The informative CSA brochure should also be made available at the Saturday Farm Markets “to entice participants to sign up for the following year” (Group 10).

Cost:

Based upon a review of other CSA programs, the average prices for CSA shares were calculated. For a 22 week session, the value of shares should be priced at \$550 (\$25 per box), assuming that the “prices of the items in the box should be less expensive compared to the Saturday market prices” (Group 10). At the start of the season members should pay a small deposit to cover the cost of the reusable containers. Shares should “be purchased at the beginning of the season and partners must agree to share in any losses due to unfavorable growing conditions or disasters” (Group 10).

Pick up:

During each weekly Saturday Farm Market, containers should be available for pick up within the market hours. This will allow “participants to mingle with market customers and to tell them about the CSA program”. Container pickups that are missed should either be sold at the market, donated to various local food charities, or as a last resort composted (Group 10).

Storage and Packaging:

To minimize waste, food containers should be large and reusable. “Two containers could be assigned per share; one empty container will be returned and a filled container will be ready for pickup each week” (Group 10).

Monitoring:

Since this is a pilot project all information pertaining to the CSA should be recorded, such as “dates and amounts of the different crops planted, [and] a list of all the items placed in each weekly container (Group 10).

Steps for Implementation:

- “The first step is to send out the CSA brochure [see **Appendix E**] to potential participants. Then each person should be contacted by phone, and during this call any questions and concerns would be answered.
- Once partners are signed up, the quantity of foods to be put into weekly boxes should be decided upon to reflect the chosen price. Then, appropriate containers should be purchased.
- A harvest day and time should be set to have containers ready in time for weekly pickups.
- An appropriate location at the Farm should be designated for CSA pickup and clear and visible signs should be posted.
- Forms and brochures will need to be copied and distributed, and a binder for recordkeeping should be designated that all Farm staff are aware of” (Group 10).

Proposed Ideas for Future CSA Programs:

Production:

Shares for the CSA program “should be expanded to businesses, such as the Sage Bistro, and UBC Food Services in order to better integrate the Farm into UBC’s food system. By buying shares into the Farm, these food services would have a better idea of what they could expect from the farm during the season, and they may meet the lower prices they are looking for. Such a partnership has been formed at many university CSA programs in the United States” (Group 10).

CSA Model:

In order to give CSA members a greater variety of container content choices, the Farm should consider turning away from their farmer directed model towards a more participatory one (Group 10).

Alternative Payment Options:

The Farm may wish to consider expanding the container payment options from members having to provide a single lump sum payment at the start of the season to giving members the option to make multiple installments, similar to Waltham Fields Community Farm (Group 10). This would greatly increase accessibility, especially for “students who may not be able to pay the whole amount up front, but they would still sign a contract for the whole season” (Group 10). Also the Farm may wish to adopt alternative payment options for containers, such as by allowing members to exchange their labour for containers, similar to Nathan Creek Farm who allows members to “work for one day per week at the farm in exchange for a week of produce” (Nathan Creek Farm, 2005 in Group 10). This would provide accessibility for those “people who cannot afford the food boxes to have access to nutritious foods, and it also enhances the educational component of the program” (Group 10). While the UBC Farm already provides volunteers and staff with some discounts, this proposed model would “extend the possibility to the rest of the community and may attract more people to the Farm” (Group 10).

Transportation for Containers:

The decision about whether food containers should be picked up and/or delivered should be decided upon receiving feedback from the pilot summer CSA program and should also be dependent upon how many members the CSA Program will include (Group 10).

Box Contents:

UBC Farm could expand the variety of produce in its containers by “joining with other farms and growers in the lower mainland” (Group 10). The Farm should “offer a choice between a smaller box and a larger box” as well as a substitution option when there is a greater variety of crops to choose from, and sufficient labor to handle substitution requests (Group 10).

An informative newsletter should be placed in containers on a bi-monthly basis. The newsletter should contain: Farm contact information for members to report questions and concerns, “recipe ideas, gardening tips, health information, suggestions for reducing waste and pollution, upcoming events, volunteer opportunities, and featured local farmers” (Group 10). The Farm should also explore the possibility of making reusable grocery bags with the name of the CSA, and the UBC Farm website address printed on them to either be included with the food boxes, or for sale at the Saturday market. This would likely raise awareness of the CSA program and thus attract future members (Group 10).

Proposed Ideas for Integrating the CSA Program into UBC curriculum:

“Information that is compiled from the pilot project this summer (financial data, survey results from customers, market worker feedback, etc.) can provide for many [immediate and long-term] educational opportunities” (Group 10). Below is a list of possibilities to integrate the pilot CSA project into UBC courses:

Immediate Opportunities:

- Using this data generated from the pilot project, “case studies can be formulated for classes in the Agroecology and Food and Resource Economics (FRE) programs, which already make extensive use of problem-based learning. The FRE students can research a case dealing with the economic success of a CSA program as compared to years without the program in place, or include the program in a small business management plan for the UBC Farm” (Group 10).
- “Agroecology students can work on a scenario reflecting the Farm’s current practices and then decide what steps the Farm should take to flourish as a small scale diversified farm. The students would be given data from previous years at the Farm, and posed the question, “With ___ha of land, ___dollars of funding, ___ available staff members, design a realistic land utilization plan for the UBC Farm if it wishes to continue the Market Garden and expand the CSA program.” This will allow students to be involved in a tangible educational experience, feel connected to the Farm, and the Farm will benefit from these research initiatives” (Group 10).
- Food, Nutritional and Health students could also be given data generated from the pilot project to create menus for the following CSA iteration, since “a common complaint of people who receive food boxes is that they are not sure what to do with all of the vegetables that they receive in their boxes, and therefore it would be useful to include recipes in the boxes each week. This would benefit all in the community that make use of the CSA program, it would aid the Farm, and the students would learn more about the UBC Farm and the local food system” (Group 10).
- Sauder School of Business students can “help to expand the CSA by applying the latest marketing strategies and developing effective promotional material” (Group 10).

Longer-term Opportunities:

The UBC Farm should implement “a field course for Agroecology students that would span the entire growing season, similar to the eight month apprenticeship offered at the University of California in Santa Cruz (CASFS)” that has been already discussed at recent meetings of the Farm Advisory Council (Group 10). The “CSA program creates a great framework for the easy integration of this season-long course (CASFS), and the course can track the progress of the CSA” (Group 10). The course could involve the following components:

- In the spring months, students could “correspond with customers and find out their preferences for the coming year, allowing for high-value crops to be planted that summer. Working with the Farm managers, the students will be able to learn how to plan the field layout, order seeds and start transplants” (Group 10).
- In the summer months the students could “farm - providing the necessary committed staff to allow for the expansion of the area under cultivation” (Group 10).
- In the fall months the students could “continue to harvest and gather input from the customers for how to improve the program for next year. This model will allow for a concrete, long-term educational and research opportunity – as the students pass on their recommendations to the next year’s group and the CSA is molded to best-suit the community” (Group 10).
- “Social Science students can also be involved, gathering feedback and data to assess the Farm’s success at serving the entire community. Community member satisfaction regarding the CSA and the Saturday market could be tracked, and research questions such as, “what sector of the community makes the most use of the CSA program?”, “how accessible is the program?”, “should there be varying price brackets?”, and others could be asked. The aim of this research project would be to ensure the Farm is enhancing food security and serving the whole community as best as it can” (Group 10).

Summary of Recommendations

audience	Recommendations
<p>UBC Farm Advisory Board and Team & 2006 AGSC 450 Class</p>	<ul style="list-style-type: none"> ▪ General financial investments to the Farm should be amplified through: <ul style="list-style-type: none"> • Establishing partnerships with private companies • Seeking funding through government farm loan programs (Group 2). ▪ Specific financial investments and funding should be sought for purchasing a new tractor to enable the expansion of production potential to available uncultivated farmland. Potential donors and partnerships could be sought through: <ul style="list-style-type: none"> • Establishing a research partnership with the bio-diesel industry • Asking dealerships to collaborate with the Farm by preparing persuasive reasons why it is in their own interest to do so (Group 2). ▪ Various potential tractor models should be researched to determine the most appropriate type for cultivation (Group 2). ▪ An agroforestry program appropriate for the Farm should be researched and plans should be outlined for implementation (Group 2). ▪ Research should be resumed on high profit and demand items that have proven unsuccessful in the past, such as exotic mushrooms (Group 2). ▪ Explore the potential to create a non-profit Farm component to support the local Food Bank. The Farm could be “eligible for the Vancity Credit Union EnviroFund Grant of up to \$40,000 (Group 2).
<p>UBC Sage Bistro &</p>	<ul style="list-style-type: none"> ▪ Explore the potential to create a culinary school, where the facilities at Sage Bistro

Farm Advisory Board	are used along with UBC Farm products (Group 2).
UBC Farm Team	<ul style="list-style-type: none"> ▪ The UBC Farm should establish a marketing <i>team</i> to further promote specialty items and enhance relations with current and potential restaurant buyers (Group 2). ▪ The UBC Farm should expand the production of their free-range organically produced eggs (Group 2). ▪ The UBC Farm should create a summer youth camp to increase farm revenue, agricultural learning's and fun (Group 2). ▪ "Collect data during the pilot project over the summer, and make it available to students from various faculties in order to conduct the above-mentioned projects (Group 10). ▪ Based on customer feedback, look at expanding the harvested area for the CSA program for the following year. ▪ Construct a link or website describing the CSA program and ways to sign up. ▪ Look at the possibilities of making shares available to UBC food businesses and approach these businesses for their input" (Group 10).
2006 AGSC 450 Class	<ul style="list-style-type: none"> ▪ Students should explore the potential for strawberry and greenhouse production (Group 2). ▪ Students should collaborate with the Sauder School of Business students to develop a business plan for the UBC Farm (Group 2). ▪ Students should directly contact other campus farms for suggestions and related information that would help enhance the economic sustainability of the Farm (Group 2). ▪ "Summarize the data collected from the summer 2005 pilot CSA project and make recommendations on box size(s), box prices, produce selection, land needs, and more efficient organization practices for the 2006 CSA program (Group 10). ▪ Conduct research into other CSA programs or small farms in the area that may want to join with the UBC Farm to enhance the quantity and selection in the food boxes. ▪ Approach AMS Food and Beverage Department, UBC Food Services, Sprouts, and/or Sage Bistro about buying a CSA share from the UBC Farm. ▪ Develop a newsletter template that will compliment the CSA program" (Group 10).
Faculty of Land and Food Systems	<ul style="list-style-type: none"> ▪ The Faculty should improve networks between the UBC Farm, UBC's dairy research facility at Agassiz, and any future components related to the Farm planned at the Okanagan, to help "synergize research and the market garden by supplying services and foods that are unavailable at the Farm" (Group 2). ▪ The Faculty should further engage themselves and advertise to UBC students that they can earn academic credits for work done on the Farm (Group 2). ▪ The Faculty should encourage other UBC faculties and schools to participate in on-site research projects to help make the individual components of the Farm system a more holistic one (Group 2). ▪ "Use the data generated from the CSA pilot project to incorporate more case studies of the UBC Farm into Agroecology, FRE and FNH classes" (Group 10). ▪ Approach the Sauder School of Business to continue working with Agricultural Science students and particularly to aid in the marketing of the CSA program. ▪ Encourage more self-directed studies, classes and research topics to take advantage of the Farm as a resource, particularly with the economic, social and environmental implications of a CSA program at the UBC Farm" (Group 10).
Sprouts	<ul style="list-style-type: none"> ▪ Should develop an intensive marketing strategy to increase awareness of its

	services, which could potentially lead them to purchase specialty items from the UBC Farm (Group 2).
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Strengths and Weaknesses of 2005 Spring UBCFSP

Strengths

Student Enthusiasm:

This year, I felt that the majority of the groups were really engaged and excited about the UBCFSP in general, and about their scenarios. I think that groups felt that their work will indeed help contribute to positive change in UBC's food system, which as a result, really inspired many. Many groups wanted to do more work in their projects, if only they had more time. I think this is a reflection of the success of the project, and of the pedagogies of "Community-of-Learners", "Microcosms", and "Pragmatic –Idealist" approaches.

Quality of Papers:

Overall, I was impressed with the quality of content in the papers. The level of creativity that emerged, such as in the design of educational and marketing campaigns was impressive. Also, I was excited by many of the group's findings, because I believe they will really aid in moving the project ahead.

Weaknesses

Reflections about Vision Statement:

While, all groups (except one) provided reflections about the "Consensus Version" of the Vision Statement, the majority did not provide any reflections about the "Plain Language" Vision Statement. This reflects upon the teaching team assignment instructions, in that we did not provide enough specificity or clarity in this area. Also, while all groups provided reflections about the vision statement, many groups ceased to provide constructive suggestions in regards to how to *improve* the vision statement (i.e. proposals for alternative wording, etc.). Finally, many groups did not understand the difference between a vision statement and detailed plans needed for its implementation. Guiding principles are theoretical by definition and are *intended* to sound idealistic since they are those attributes that are supposed to guide us towards our *ideal* world. The concrete directions regarding how these principles guide us, are supposed to come from the plans for the implementation of the principles.

Quality of Recommendations:

Many of the recommendations that students provided lacked detail in whom they were directed towards, as well as they lacked specificity. As a result, I used my judgment to determine who the target audience for the recommendations should constitute.

Time:

The overwhelming majority of groups felt that the UBCFSP should have been introduced much earlier in the course. Because most of the scenarios entailed contacting food distributors, brokers and retailers, more time was strongly felt needed due to the time lapses experienced in waiting for their responses which were necessary to move comfortably forward in other related tasks.

File Formats:

Many of the groups submitted components of their electronic paper in formats other than in Word, making it very difficult to integrate these files in one format. Unfortunately, the teaching team did not specify the file format to the class for all components of group's papers.

Final Reflections

Overall, summarizing and integrating the work of 16 groups proved to be a difficult undertaking. The quality of each paper varied in content, organization, referencing and overall clarity. I tried my best to honor the language, ideas, findings, proposed methods of data collection, and recommendations presented by each group, as well as give justice to each groups' voice. I apologize if I have over-generalized and/or misinterpreted any group's words, ideas or findings, and if I left

important elements from your work out of this report that you felt was vital to include and to moving the project ahead.

I was surprised to find a vast amount of very specific findings that emerged from group's work in this iteration of the project, which I feel will contribute significantly this year in moving the project forward, particularly into further action stages. As usual, I am amazed by the amount of enthusiasm and dedication shown and assistance offered by the AGSC 450 teaching team, students, and partners and collaborators towards this project and with one another.

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Appendix A: *Overview of UBCFSP Scenarios*

The University of British Columbia Food System Project (UBCFSP)

Principal Investigator: Dr. Alejandro Rojas, Course Instructor, AGSC 450, Agroecology, Faculty of Agricultural Sciences (FAS)

Co-Investigators: Liska Richer, Project Coordinator, Teaching Assistant, AGSC 450, M.Sc. student, FAS

Brenda Sawada, Coordinator, Social, Ecological, Economic Development Studies, UBC
Campus Sustainability Office

Andrew Parr, Director, UBC Food Services

Dorothy Yip, General Manager, UBC Food Services

Nancy Toogood, General Manager, Alma Mater Society (AMS) Food & Beverage Department

Mark Bomford, Coordinator, UBC Farm

Catherine Jacobsen, Teaching Assistant, AGSC 450, MA student, School of Community And Regional Planning

Lorenzo Magzul, Teaching Assistant, AGSC 450, PhD student, FAS

Julia Wagner, Teaching Assistant, AGSC 450, M.Sc. student, FAS, Project Co-Founder

Research Partners:

Dr. Freda Pagani, Director, UBC Campus Sustainability Office

John Metras, Associate Director, UBC Waste Management

Since the beginning of this project, many people have contributed to its development and implementation. Besides the names listed above we acknowledge the important contribution of: Tony Brunetti, Kristina Bouris, Dr. Art Bomke, Derek Masselink, Marcia Thomson, Geoff Urton, and the 2002, 2003 and 2004 AGSC 450 students whose patience, hard work and dedication are what made this project possible and who made their work available for future AGSC 450 classes to build upon.

UBC Food System Collaborative Project

**AGSC 450: Winter 2005
(Alejandro Rojas, Liska Richer and Julia Wagner)**

Learning Outcomes:

Upon completion of this section you should be able to:

- Evaluate in terms of sustainability, using available information sources on specific cases, the impacts of the growing concentration of people, urbanization and globalization forces on UBC campus and UBC food system;
- Assess a wide range of policy alternatives to deal with those impacts;
- Explore ways the food system at UBC could contribute to sustainable agricultural production, food security and safety, and the health of human communities, within UBC's campus and in Vancouver and the Lower Mainland;
- Interact with communities involved in the activities promoting sustainable agricultural production, food security and safety, and the health of human communities, to identify barriers and possibilities to at least partially achieve those aims at UBC;
- Apply the principles and tools learned in Land Food & Community (LFC) I and LFC II, along with those from your program specializations, to conduct an assessment of local sustainability issues and the linkages with global sustainability problems;
- Apply research methods to investigate, assess and design a local food system;
- Apply a basic framework for critical thinking, values development and ethical examination of questions related to the food system and land use on campus;
- Act as informed citizens who understand the inter-relations among all sectors of the food system;
- Work cooperatively in interdisciplinary groups to solve problems directly related to sustainable food system issues;
- Participate effectively in a community-of-learners that is team-based and student-centered;
- Demonstrate excellent professional verbal, written, visual and electronic communication skills.

Introduction:

The UBC Food System Project (UBCFSP) is a collaborative, community-based action research project involving multiple stakeholders: UBC Food Services, AMS Food and Beverage Department, UBC Waste Management, UBC Farm, UBC Campus Sustainability Office (CSO) and its Social, Ecological, Economic, Development Studies (SEEDS) program, and the Faculty of Agricultural Sciences (FAS). It has a minimum five year plan.

The UBCFSP is part of an Agricultural Sciences 450: Land, Food and Community III course, a mandatory capstone course for all 4th year FAS students. The Project commenced three years ago and has involved four generations of AGSC 450 students, 461 in all.

The main goals of the UBCFSP are to: conduct a UBC food system sustainability assessment; identify barriers and create opportunities to enhance the sustainability of the UBC food system; and make recommendations to UBCFSP stakeholders.

2004 was the third year of the UBCFSP. Based upon the findings of Years One (2002) and Two (2003), students in the Spring 2004 term were expected to: (1) Begin an attempt to reach a *shared* consensus about what a sustainable UBC food system should look like (vision), and how we should get there (model); and (2) test the applicability of preferred models, principles, indicators, and research designs on one of eight assigned scenarios (each scenario explored a specific aspect of the sustainability of the UBC food system).

A summer term of AGSC 450 was also held in 2004. Based upon the findings of Years One, Two and Three (Spring term), students were expected to: (1) using two scenarios, further develop and refine proposed research designs to enable the 2005 class to engage in actual data collection; and (2) make recommendations on how to refine the best model.

For a comprehensive review of the entire project and a summary of its findings up to and including Summer 2004, see the report written by Liska Richer, 2004: Paths towards a just, sustainable and food secure UBC food system: 2004 UBC Food System Project (UBCFSP) report. UBC Campus Sustainability Office/SEEDS. Available online: <http://www.sustain.ubc.ca/pdfs/seedreport04/dec04/UBCFSP2004.pdf>

Partners and Principles of Collaboration:

The partnerships and collaborations initiated four years ago not only continued with the collaborative UBC Food System Project in 2004, but the quality and richness of the dialogue was also improved. The following principles have been jointly established to guide the collaboration among all the partners:

- *The process for collecting information from staff will be one that demonstrates a steady, open dialogue.*
- *Staff are sharing their time generously and opening themselves and their area of operation to students. This process involves various levels of risk to individuals and their areas of operation. We ask students to act as professionals and demonstrate respect for this generosity. If unsure of the risks involved in comments or critiques, it will be important to check with the teaching team.*
- *To avoid unnecessary questions, we request that students seek and access information from readings and websites before contacting staff.*
- *Before requesting a meeting with staff, we ask students to send a short written assessment of information and assumptions to date, along with the questions or information sought.*
- *Sources of information (website, literature, and interview) must be appropriately referenced.*
- *Assumptions, if made, must be documented.*
- *Confidentiality must be maintained.*
- *The outcome of the projects is public; however, projects that don't meet the required standard will not be included in the WebCT system.*
- *Reports on WebCT will include critical comments from the teaching team, with other UBCFSP partners adding comments in cases where the reports have particular relevance.*
- *At the final presentation of students' reports, staff will have the opportunity to speak to the issues that have arisen.*
- *Keep in mind that it is easy to find fault and make assumptions, especially when we perceive that the values displayed by others are not in alignment with our own.*

- *Our greatest learning comes from being open and learning to explore the reasons why individuals and organizations make the choices they do. Then, we can use that understanding to create the changes we may want to make.*

As a result of your AGSC 450 colleagues' work, Summer 2004 consultations and continuing dialogue with the project partners, we have developed a series of scenarios relating to specific aspects of the UBC food system which you will explore this term.

Scenario 1: Desirability of Re-localization

Problem:

Food buyers have come to expect year-round availability of an extensive variety of foodstuffs from many regions of the globe. To meet these demands for year-round availability of food, four key developments have taken place within the past 50 years on a global scale: 1) the building and maintenance of a transportation infrastructure with low direct (vs. hidden) user costs; 2) intensification of agricultural technology; 3) widespread commitment to global free trade policy; and 4) vertical and horizontal consolidation and centralization of the corporate food system. As a result, food now comes to us from anywhere and everywhere, but from nowhere in particular (Kloppenborg, Hendrickson and Stevenson, 1996: 2).

In North America, food travels an average of 2000 km before it reaches consumers' plates (Pretty, 2001: 6). This physical distancing of consumers from the sources of their food has produced various forms of social and psychological distancing. Many people do not know where their food comes from, how it was produced and where it ends up. Social and/or psychological distancing is becoming an increasingly characteristic occurrence between farmers and consumers, and between consumers and the natural environment. The food dollar that producers receive for their products has been falling significantly and steadily since the 1950's (Pretty, 2001: 2). The cheap cost of food in North America in particular hides many indirect costs and produces "externalities". These externalities associated with increased food miles include: negative ecological impacts, and decreased nutritional value and overall flavor. In other words, despite overall growth in the quantity of food production globally, evidence is accumulating regarding the negative social, ecological and economic effects of our current dominant forms of food production, processing, transportation, distribution, consumption and end disposal - that is, all facets of the food system.

Specific Tasks:

Based on secondary sources, your former 2004 AGSC 450 colleagues' reports (Summer and Spring) and a group of UBC Sauder School of Business students' work (Fall 2004), and your own experience:

- Develop a **research methodology to be carried out by your AGSC 450 colleagues in 2006**. You are expected to find out: (1) **whether or not, and to what extent, UBC's population is willing to buy local food (i.e. level of demand and interest), and (2) if a high interest is indicated to purchase local food, whether or not UBC's population is willing to pay more for it**. In other words, you need to develop a questionnaire to investigate the UBC population's desire and willingness or capacity to consume and purchase locally produced goods.
(For a complete review of research methods and sampling techniques see the AGSC 450 WebCT site: http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home Documents, Archives and Web Resources>Research Methods and Tools)
- In order to develop a methodology you will need to answer the following questions typical of any research design:
 - a. What? and Why?: Briefly discuss the above problem statement ("what?") and explain its importance ("why?"). This discussion should also address the question of what is to be considered "local food".
 - b. By/With Whom?: Define demographically the population to be studied from which you need to draw a sample. Specify the sampling technique to be used (i.e. random sample; stratified random sample, convenience sample; "snowball" sampling, etc).
 - c. When?: Provide a timeline for the implementation of your research design: that is, when every specific task will be done.
 - d. Where?: Identify the location(s) of the data collection.
 - e. How?: Produce and deliver the questionnaire to be tested.

- You will administer your **advanced version of the questionnaire (see below)** to a small sample of the UBC population (a pilot test).
- You will then, compile and interpret the results.

This Scenario will entail compiling the raw questionnaires developed by previous groups in 2004 (spring groups: 1, 8, 12, 13, 17, 19; summer group: 1; UBC Sauder School of Business students group). The group will produce a *draft* questionnaire to be submitted to the Teaching Team and the whole class for input, no later than March 16. The group will then incorporate the feedback, and produce a more advanced version to be tested with the small sample of the UBC population. In the summer of 2005, the questionnaire will be further polished (if necessary) by the Teaching Team, and UBCFSP stakeholders will provide their feedback. A final version of the questionnaire will then be completed, the students in 2006 will administer the questionnaire to a *representative* sample (faculty, staff, residents and students) of the UBC population, and results will be tabulated and interpreted in summer 2006.

Division of Tasks for Scenario 1:

One group to work on Scenario 1.

Scenarios 2a, 2b, 2c: Feasibility of Re-localization

Problem:

UBC food providers are faced with many demands. UBC consumers typically demand that food outlets on campus should provide them with an array of tasty, nutritious and affordable foods. At the same time, UBC food providers need to run an economically viable business. As a result of personal communication between the researcher partners and a summer workshop with UBCFSP stakeholders, UBC food providers expressed support for the idea of increasing purchases of local foods. In the summer, your colleagues conducted a feasibility analysis, investigating realistic opportunities to increase local food procurement practices. They found that "83% of the food ordered by UBC Food Services and AMS Food and Beverage Department can be obtained from a local source," and some local products were found to be of the same quality and price as non-local products that are currently purchased by these UBC food providers (group 2, summer 2004). Your colleagues were only given one week to conduct this analysis; thus, we require a more comprehensive review. Specifically, UBC food providers need you to conduct an analysis involving more food product distributors, and more of the commonly used food products.

Also, UBCFSP stakeholders are interested in identifying companies, with which they can conduct business, that provides sustainably-produced products, or at the very least, that demonstrate an awareness of sustainability issues. However, many relatively sustainably-produced items are not local, are very expensive, and often are supplied by small distributors who cannot meet the UBC food providers' quantity and delivery requirements. Thus, in your analysis, we also need you to take into consideration the relationship between sustainability, locality and business scale, and develop criteria for making food procurement decisions. Obviously, you need to find out whether or not distributors exist that can meet these needs in an economically viable manner.

Scenario 2a: Feasibility of Re-localization on Campus

Specific Tasks:

Based on secondary sources, your former 2004 AGSC 450 colleagues' work (spring group 17, and summer group 2), UBC Sauder School of Business group of students' work (Fall 2004) and your own experience:

- Briefly discuss the above problem statement (Scenarios 2a, 2b, 2c: Feasibility of Re-localization) ("what?") and explain its importance ("why?"). This discussion should also address the question of what is to be considered "local food".
- Investigate the realistic opportunities for local food procurement given the factors governing UBC's food procurement requirements, such as volume, quality, seasonality, and price. Specifically, UBC food providers need to know what types of foods local producers and distributors can deliver reliably and consistently, while meeting quantity requirements and quality standards, as well assuring economic viability.

- Using spring 2004 AGSC 450 Group 17's method of feasibility analysis (pages 9 to 15 of their paper), and *complementing* the work done by your summer 2004 AGSC 450 Group 2 (you may wish to verify what they have already done for accuracy), investigate the feasibility of re-localizing UBC's Food System. You need to expand upon 1) the list of commodities analyzed by your colleagues to include other common items used by food providers (i.e. eggs, poultry); 2) the list of alternative providers analyzed (your colleagues only examined two food product distributors). You will need to answer the following questions in order to conduct the feasibility analysis:
 - a. What commodities do UBC food providers currently use? (i.e., unprocessed foods, eggs, poultry, etc.)
 - b. Which of these products *can* be obtained from a BC source? (for a BC Agricultural Commodity List: go to <http://www.agf.gov.bc.ca/stats/103a.htm>)
 - c. What is the seasonal availability of these products?
 - d. What are the prices that UBC Food Services and the AMS Food and Beverage Department pay for non-locally produced (unprocessed) foods?
 - e. Who (i.e., which specific suppliers, farmer cooperatives) can provide UBC food providers with locally and *ideally* sustainably produced foods (unprocessed items, eggs, poultry and dairy products) at a competitive price, while meeting quantity and quality requirements?

Division of Tasks for Scenario 2a:

Two groups to work on this scenario: the two groups should get together and discuss a division of tasks which will avoid redundancy, including division of commodities and distributors to be analyzed.

Scenario 2b: Feasibility of increasing farm provision of specialty items to Sage Bistro

Specific Tasks:

- Briefly discuss the above problem statement (Scenarios 2a, 2b, 2c: Feasibility of Re-localization) ("what?") and explain its importance ("why?").
- Working with John Flipse, General Manager of University Centre/Sage Bistro, and Mark Bomford, Manager of UBC Farm, explore the potential for further business collaboration between Sage Bistro and the UBC Farm. Specifically, study Sage menus, explore seasonal menu items and determine how the farm can dependably provide specialty items (such as tiny squash (pattipan), zucchini, yellow beets, heritage tomatoes, pear tomatoes and other interesting vegetables including Asian varieties) which are highly valued by Sage. Also explore ways in which the farm might serve the Sage Bistro more effectively through more frequent deliveries, longer growing season, and increased availability. Explore the risks and benefits, for both stakeholders, associated with expanded market relations. Keep in mind the intent of this task is also to develop a model for future expansion to other food outlets on campus and to enhance the availability of local food at UBC.

Division of Tasks for Scenario 2b:

One group to work on this scenario.

Scenario 2c: Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

The AMS Food and Beverage Department (AMSFBD) have been approached by the Community Food Security Coalition (CFSC) (<http://www.foodsecurity.org>) to cater a conference which they wish to hold at UBC with locally produced foods. Below is a letter with details:

From: Nancy Toogood (Manager, AMSFBD)
To: Students and teaching team in AGSC 450

Dear AGSC 450 students:

Here's the brief outline of this proposed conference:

It is the "Community Food Security Coalition (CFSC) - Eating Locally, Thinking Globally". I attended the conference in Seattle in Oct 2002 along with some other UBC colleagues. The theme of that conference specifically was "Farm to Cafeteria: Healthy Farms, Healthy Students". The second annual conference of that theme is this June in Ohio. However, the CFSC is interested in holding a conference here at UBC in either August or October of 2006. They love the rooms and shops and services in SUB, but students should always take precedence for room bookings during the academic year. They are considering August, but that is still prime growing and harvesting time for most growers and farmers. The timing remains to be seen, but either way, they are keen on having AMS Catering handle their food service requirements. You can imagine that I am thrilled to bits!

(...)

Andy Fisher (the executive director) is very familiar with our farm (...) I suggested to him that we try and get the farm involved as much as possible and he is excited about the idea.

(...)

The criteria would have to include growing seasons and encompass food that would be suitable for an evening reception, a breakfast, a lunch and snacks. Obviously all this food can't come from the farm exclusively, and I can work the recipes around the product availability. The potential numbers for the conference are approximately 700 to 800. We need to ascertain quantities, growing time, harvesting, financial feasibility (from both the growers and the purchasers perspective) and I'm sure a dozen things that I can't even think of. In addition to the farm food, I would need a local coalition to act as brokers for all the farmers in the lower mainland that might be providing some of the food...like Discovery Organics or Pro-Organics.

The beauty of this project is that although it might end up being hypothetical, there is a very realistic chance that the conference will be held here. If we could commit that year (2006) to the farm in terms of guaranteed purchase that should enable them to secure the funding to plant that spring.

Cheers,

Nancy Toogood, Manager of AMSFBD

Specific Tasks:

- Briefly discuss the above problem statement (**Scenarios 2a, 2b, 2c: Feasibility of Re-localization**) ("what?") and explain its importance ("why?"). This discussion should also address the question of what is to be considered "local food".
- Working with Nancy Toogood, UBC Farm staff and local food brokers, plan the catering requirements in the eventuality that a food conference is held in 2006 at UBC with catering from AMSFBD.
- As requested by Nancy, design a menu, and estimate required food quantities, growing plans and financial feasibility (from both the growers' and the purchaser's perspective).

Division of Tasks for Scenario 2c:

Two groups to work on scenario 2c: the two groups should get together and discuss a division of tasks which will avoid redundancy.

Scenario 3: Education, Awareness and Re-Localization

Problem:

Food buyers have come to expect year-round availability of an extensive variety of foodstuffs from many regions of the globe. To meet these demands for year-round availability of food, four key developments have taken place within the past 50 years on a global scale: 1) the building and maintenance of a transportation infrastructure with low direct (vs. hidden) user costs; 2) intensification of agricultural technology; 3) widespread commitment to global free trade policy; and 4) vertical and horizontal consolidation and centralization of the corporate food system. As a result, food now comes to us from anywhere and everywhere, but from nowhere in particular (Kloppenborg, Hendrickson and Stevenson, 1996:2).

In North America, food travels an average of 2000 km before it reaches consumers' plates (Pretty, 2001: 6). This physical distancing of consumers from the sources of their food has produced various forms of social and psychological distancing. Many

people do not know where their food comes from, how it was produced and where it ends up. Social and/or psychological distancing is becoming an increasingly characteristic occurrence between farmers and consumers, and between consumers and the natural environment. The food dollar that producers receive for their products has been falling significantly and steadily since the 1950's (Pretty, 2001: 2). The cheap cost of food in North America in particular hides many indirect costs and produces "externalities". These externalities associated with increased food miles include: negative ecological impacts, and decreased nutritional value and overall flavor. In other words, despite overall growth in the quantity of food production globally, evidence is accumulating regarding the negative social, ecological and economic effects of our current dominant forms of food production, processing, transportation, distribution, consumption and end disposal - that is, all facets of the food system.

A response to this situation is envisioned in the concept of re-localizing the food system to bring the costs and benefits of food production, processing and distribution closer to home. There is a growing trend among consumers that indicates increased desire and support for locally produced food. UBC food providers have initiated steps towards supporting locally produced food: UBC Catering Services and Sage Bistro buy as many products from the UBC Farm as it is able to provide to meet their quantity requirements. However, the UBC Farm can only supply limited foodstuffs (due to economic, labor and seasonal constraints). So, if UBC food providers are to increase their purchases of local food products from either current or alternative distributors, they need to know whether consumers are going to support their increase in local food procurement. One way of increasing support among consumers for local foods is through education and awareness-raising about the benefits of supporting and purchasing local foods. Through personal communication with UBCFSP stakeholders and a workshop held in the summer of 2004, we came to the joint conclusion that there is a need to increase the education and awareness among faculty, staff and students regarding the benefits of local foods. Your colleagues from both Spring and Summer 2004 AGSC 450 classes suggested many strategies to increase education and awareness about these benefits, including: providing discounts on local food items, placing stickers and labels on low food mileage items, implementing a Food Miles Goal Week, offering Food Miles Reward cards, creating slogans, using pamphlets, posters, pins, tabletop ads, and handouts advertising the benefits of local foods. While many colleagues proposed and/or designed many excellent instruments, these instruments need to be sorted and examined to find the most effective ones or develop new ones. We also need you to situate these suggested initiatives within a broader educational campaign, and design an action plan for implementation of this campaign.

Specific Tasks:

Based on secondary sources, the findings and proposals of your former 2004 AGSC 450 colleagues' work (summer group 3, and spring groups 6, 17 as well as suggestions made by groups 8,10, 12,18 and 19), UBC Sauder School of Business group of students (Fall 2004) and your own experience:

- Briefly discuss the above problem statement ("what?") and explain its importance ("why?"). This discussion should also address the question of what is to be considered "local food".
- Conduct a review of the "Buy BC" campaign (impacts, successes, and failures), and draw lessons from it for a campaign on campus.
- Complementing the work done by your AGSC 450 colleagues (spring and summer) and UBC Sauder School of Business student group, continue to **refine and develop an educational campaign**, including a set of educational pieces (e.g., poster, pamphlets, online campus resource, UBC Local Food Idol Competition, etc.) to increase awareness and education about the benefits of local foods, targeted to UBC food workers or UBC food consumers (students, faculty, staff and campus residents).
- Design the actual **steps of action required to implement this campaign for your AGSC 450 colleagues in 2006**. Thus, along with developing educational piece(s), you will need to answer the following questions typical of any educational campaign design:
 - a. By/with Whom?: Define who will be administering the educational piece(s) and define demographically who will be receiving/viewing the educational piece(s), that is, the "target population".
 - b. When?: Provide a specific timeline for your educational campaign design considering the time constraints of the AGSC 450 class (i.e. when your educational piece should be administered, etc.).
 - c. Where? (Location(s) of administration of educational piece(s), etc.).

d. How? (Techniques of dissemination)

- You will also need to outline a budget for constructing and administering your education piece(s). Keep in mind that your budget needs to be realistic (the smaller the better!) and the more detailed the cost breakdowns you outline, the clearer it will be to adopt and implement. To make your decisions about the nature and scope of your educational campaign, you may begin by consulting with UBC Food Services and AMS Food & Beverage Department to establish a realistic budget.

Division of Tasks for Scenario 3:

Four groups to work on this scenario: **Two** groups should design a campaign directed towards food workers, and **two** groups should design a campaign directed towards food consumers. The four groups should get together to decide which two groups will be working on each campaign.

Scenario 4: Exploring existing opportunities that enhance and/or barriers that impinge on the sustainability of the UBC food system within current campus development plans

Problem:

The UBC Office of Campus Sustainability, as well as other units and individuals on campus, have coordinated a number of sustainability initiatives at UBC. However, there is considerable debate about the extent to which these initiatives will be further enhanced or hindered by UBC's Comprehensive Community Plan and related campus development plans. Some of the steps that have been initiated towards sustainability on campus include: waste reduction, reusing and recycling, composting, incentives to bring reusable cups and containers when purchasing food at UBC, Sustainability Day, Bio-diesel oil recycling, Power Smart, agreements between Student Union and TransLink to make public transportation cheaper and more efficient for UBC students, provision of Fair Trade coffee, Imagine UBC, ECOTreck, Sustainability Pledge, Sustainability Coordinator Program, C.K. Choi building, Green Building Program, SEEDS, Agora, Natural Food Co-op, initiatives to support the UBC Farm (Sage Bistro, Green College, and UBC Catering Services purchase products from the Farm), AMSFBD's ethical food procurement policy. **The key problem that needs further investigation is whether the current form of urban development being implemented by UBC is enhancing or hindering the transition to the sustainability of the UBC Food System.**

Specific Tasks:

- Briefly discuss the above problem statement ("what?") and explain its importance ("why?").
- Please review the **Campus and Community Planning (C&CP) website:**
<http://www.planning.ubc.ca/corebus/landuse.html>
You will need to take a careful look at UBC's Comprehensive Community Plan (which establishes neighborhood densities), the Official Community Plan (the governing document) and the South Campus Plan (the plan for the first section of building south of 16th Avenue bordering Wesbrook Mall). Study the plans and relevant documents to discover what opportunities exist to enhance and what barriers can be expected to hinder the sustainability of the food system at UBC. Specifically, how can these guiding documents be improved (if deemed necessary) to address issues related to, and support the possibility of, a sustainable food system at UBC? For example, do the documents say anything about urban forms of agriculture on campus?
- Discuss the following issues: Is it important to grow food for the campus community on campus? Why? What are the barriers to growing food on campus? What UBC policies support and what policies create obstacles for growing food at UBC?
- The Main Campus Plan (governing the planning of the academic core) is coming up for _____ revision. Present a convincing case for the production of food on campus so that our community can see the academic connections and appreciate the rationale for doing so. However, if you come to the conclusion that a convincing case for food production on campus cannot be made, present your argumentation to reject such an initiative.

Division of Tasks for Scenario 4:

Three groups to work on Scenario 4. The three groups should get together and discuss a division of tasks which will avoid redundancy. For example, the three groups could address the whole scenario, but each should focus on different aspects: 1) Existing Plans, Policies and Vision Statements and Principles for the Comprehensive Community Plan; 2) The Local Areas; and 3) Strategies for the Comprehensive Community Plan. However, other divisions of task may be possible and we will leave it to the groups to jointly decide.

Scenario 5: UBC Farm: Exploring alternative routes to enhanced viability

Problem:

There are very few university campuses in North America that still have a campus farm that embraces the needs of small-scale and diversified agriculture. With the UBC Farm, UBC has the potential to be such a university. The intention of UBC Farm is to be a place for action learning and to be an integral constituent of the Faculty of Agricultural Science's curriculum. In addition, the Farm must become a financially viable operation, guided by the principles of ecologically, socially and economically sustainable agriculture. UBC Farm has established market relationships with some of UBC's independent food service providers and holds summer markets; however, this is not sufficient for the Farm's financial viability. The Farm community is interested in forming and/or increasing market relationships with UBC Food Services, AMS Food and Beverage Department and other campus food providers where there is greater opportunity for high volume sales.

Your colleagues in AGSC 450 2004 investigated possible avenues to establish market relationships with UBC Food Services and the AMS Food and Beverage Department. They identified two problems: "1) The UBC Farm's operating cost exceeds its revenue, and 2) UBC food providers have expressed interest in buying UBC Farm produce but current prices and quantities supplied are not competitive with UBC Food Services current suppliers" (Group 9, 2004).

Based upon personal communication among stakeholders in the UBCFSP and a workshop held in the summer, UBC food providers suggested that other local and community farms could be invited to participate in forming a co-op or other collaborative entity (e.g. local farmer's market) with UBC Farm to meet the need of the existing UBC community base.

Specific Tasks:

Based on secondary sources, your former 2004 AGSC 450 colleagues' work (summer group 4, and spring groups: 9 & 14), and your own experience:

- Briefly discuss the above problem statement ("what?") and explain its importance ("why?").
- Review available literature about current UBC Farm projects, and discussions about and proposed visions for UBC Farm.
- Explore alternative production plans for the UBC Farm (i.e. alternatives to Saturday Markets, in particular Community Supported Agriculture (CSA), and increased relationships with UBC's food providers and the UBC Food Co-op (Sprouts)).
- Research *other* university/college farms as case studies that document lessons (both successes and failures) of successful campus production plans, particularly with CSA.
- Explore ways that UBC could implement a CSA Program, whereby UBC community members and/or UBC food providers purchase a share at the beginning of the growing season and receive produce in return. Prepare a detailed plan of proposed steps and actions for implementation.

Division of Tasks for Scenario 5:

Three groups to work on Scenario 5. The three groups should get together and discuss a division of tasks which will avoid redundancy.

Useful Resources:

UBC:

Alma Mater Society (AMS) website

<http://www.ams.ubc.ca/index.cfm>

Sage Bistro (UBCFCS operation)

<http://www.sage.ubc.ca/>

UBC Campus and Community Planning (C&CP)

<http://www.planning.ubc.ca/corebus/landuse.html>

UBC Campus Sustainability Office (CSO)

<http://www.sustain.ubc.ca/>

UBC Farm

<http://www.agsci.ubc.ca/ubcfarm/>

UBC Food Co-op (and Sprouts)

<http://www.ams.ubc.ca/clubs/nfc/>

UBC Food Services (UBCFCS)

<http://www.foodserv.ubc.ca/>

UBC Housing and Conferences

www.housing.ubc.ca

UBC Waste Management (UBCWMM)

<http://www.recycle.ubc.ca/index.html>

UBC Sauder School of Business Group. Fall 2004. "Home Grown: Marketing Local foods at UBC". Available in WebCT
AGSC 450 website: UBCFSP 2005

Distributors:

Ann Marie's Incredible Goodies Inc. (local food distributor)

2695 Commissioner St. Vancouver BC, V5K 1A1

Phone: 604-263-6287

<http://foodpages.ca/6990>

Discovery Island Organics

Owned By: Anne Moss & Randy Hooper

4344 Albert St. Burnaby, BC V5C 2G1

Phone: 604 299-1683

Fax: 604 299-1673

Email: dislands@telus.net

Pro-Organics

<http://www.proorganics.com/>

Small Potatoes Urban Delivery (SPUD)

<https://www.spud.ca/index.cfm>

Yen Bros. Food Service (food distributor)

<http://www.yenbros.com>

Certified Organic Association of BC

<http://www.certifiedorganic.bc.ca>

Research Methods:

Research Methods Resources on the WWW (Stephenson 2004):

http://www.slais.ubc.ca/resources/research_methods/

Case Studies:

Revealing the Secrets of the All-Iowa Meal: The Local Food Brokering Project of Practical Farmers of Iowa

<http://www.farmprofitability.org/research/alliowa/alliowa.htm>

Marking Guidelines (UBCFSP 40% of overall AGSC 450 mark):

Team Paper (30 out of 40%)

Team Paper General Guidelines:

- The collective paper should be **MAXIMUM 25 double-spaced pages (12 point font) including** bibliographical references, appendices (if any), and an abstract (no longer than one or two paragraphs). You may use single space for questionnaires and educational pieces in your appendices. The maximum length will be strictly enforced.
- Please have someone (either your fellow group members or someone else) review your work for spelling, grammar, punctuation, and overall clarity.
- Please use **MLA format** for referencing and use it *consistently* throughout your paper.
- Please make sure that you do not abuse your appendices. Specifically, include only those items that would distract the reader if you included it in the body of your paper (i.e. questionnaires, raw data, educational pieces such as poster design, leaflets, etc.).
- Please make sure that if you include appendices that you *refer to and describe* the content of each item included in the appendices within the *body* of your paper.
- Please use subheadings to organize your work (i.e. results, discussion, specific task titles, etc.). This will greatly enhance the clarity of your work, and the ability of the Project Coordinator to synthesize your findings.
- Please write your paper having in mind a public audience, not the Teaching Team!

Team Paper Specific Guidelines:

- 1) **Abstract, Introduction, Problem Definition, Vision Statement and Identification of Value Assumptions (5 points)**
 - a. Summarize the content of your paper in a short abstract.
 - b. Write an introduction describing the plan for your paper.
 - c. Comment, and expand if necessary, on the problem definition given to you in the description of your assigned scenario.
 - d. Briefly present your group reflections on the Vision Statement collaboratively developed by the project partners (7 guiding principles) (available in the AGSC 450 WebCT site: UBCFSP 2005) and how your value assumptions influence your views. Specifically, briefly indicate whether you agree or disagree with the principles and identify anything that should be added to or taken away from the principles. Report if there was more than one position in your group.

- 2) **Methodology, Findings, Discussion, Recommendations and Conclusion (25 points)**
 - e. Identify and describe your assigned subsystem or aspect of the UBC food system, your findings, discussion, and any materials or activities you have prepared for your colleagues next year.
 - f. Provide your conclusions or final reflections, including:
 - A clear (summary) statement of the working team's central findings and position(s).
 - Recommendations to the UBC Office of Campus Sustainability, UBC Food Services, AMS Food and Beverage Department, UBC Waste Management, UBC Farm *and/or* anyone else you deem necessary with reference to

your specific task. Also, if necessary, provide recommendations for your AGSC 450 2006 colleagues (i.e. research needs, etc.).

Oral Presentation Guidelines (10 out of 40%)

- The oral presentation should follow the same structure as your team paper.
- We suggest that you prepare the group paper, at least in draft form, before creating the presentation. This should help to clarify what is to be communicated in the presentation.
- The oral presentation should not be longer than 20 minutes with an additional 5 minutes for questions and answers (Presentations will take place in four rooms).
- The presentation should be submitted in the form of a PowerPoint presentation to be included in the project's archives for future use.

Appendix B: *Instruments of Data Collection*

Scenario 1 (Group 8): Desirability of Re-localization

Questionnaire:

Please take a moment to fill out this important survey on consumer preferences and knowledge towards food.

1. Are you a:
- UBC Undergraduate Student
 - UBC Faculty Member
 - UBC Staff
 - UBC Graduate Student
 - Other: _____

Department: _____

Gender: M / F

Age (Please circle one):

18 & under 19-30 31-55 56 & over

2. Do you live:
- On Campus
 - Off Campus

- 2a. If you live on Campus, do you live in Totem Park or Place Vanier?
- Yes No

3. How many times a week do you purchase food on campus? (including in The Village)
- 0 1-3 4-6 7-9 10+

4. How would you define locally produced foods?

5. What are the benefits of eating locally produced food?

6. What are the drawbacks of eating locally produced food?

7. Which do you feel is more important?
- The distance that food has traveled
 - The country in which the food is produced



For the remaining questions, *locally produced food* will refer to food grown within British Columbia

8. Would knowing a food item was produced locally encourage you to purchase it if it was the same price as an identical item produced outside the province?
- Yes No Neutral
9. Would you like to see seasonal BC food items at UBC food outlets?
- Yes No Neutral

10. If it were to cost more to offer locally produced foods at UBC food outlets, how much more would you be willing to pay?

- | | |
|--------------------------------|---|
| <input type="checkbox"/> 0% | <input type="checkbox"/> 11-15% |
| <input type="checkbox"/> 1-5% | <input type="checkbox"/> 16-20% |
| <input type="checkbox"/> 6-10% | <input type="checkbox"/> price is not important |

11. What are the top three factors that influence your food purchasing choices?
(Please rank them in order)

- | | |
|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> Price | <input type="checkbox"/> Quality |
| <input type="checkbox"/> Organic | <input type="checkbox"/> Fair trade |
| <input type="checkbox"/> Convenience | <input type="checkbox"/> In season |
| <input type="checkbox"/> BC Grown | <input type="checkbox"/> Other: _____ |

12. At the cost of eating fewer imported foods (like bananas), would you be willing to eat more locally produced food (like apples)?

- Yes No Neutral

Thank you for your time, your responses will contribute to
the UBC Food Security Project

Comments:

Scenario #5 (Group 2): UBC Farm: Exploring Alternative Routes to Enhance Viability

Desirability of Specialty Food Items among Restaurants Survey:

UBC Farm Project – Specialty Item Survey

Restaurant Name:

Please highlight your choices for the questions below:

1. Does your restaurant purchase any of the following specialty food items?

- | | | |
|--|--------------------------------------|--|
| <input type="checkbox"/> Black huckleberry | <input type="checkbox"/> Field mint | <input type="checkbox"/> Red oak lettuce |
| <input type="checkbox"/> Red huckleberry | <input type="checkbox"/> Yerba Buena | <input type="checkbox"/> Enoki mushroom |

- | | | |
|---|--|--|
| <input type="checkbox"/> Low bush/mountain cranberry | <input type="checkbox"/> Soapberry | <input type="checkbox"/> Oyster mushroom |
| <input type="checkbox"/> lingoberry | <input type="checkbox"/> Soopolallie | <input type="checkbox"/> Wild strawberry [woodland strawberry] |
| <input type="checkbox"/> Blue elderberry | <input type="checkbox"/> Wild ginger | <input type="checkbox"/> Mountain sweet cicely |
| <input type="checkbox"/> Chocolate lily | <input type="checkbox"/> Baby carrot | <input type="checkbox"/> Purple sweet cicely |
| <input type="checkbox"/> Nodding onion [Hooker's onion] | <input type="checkbox"/> Snow peas | <input type="checkbox"/> Wild caraway/carrot |
| <input type="checkbox"/> Harvest onion | <input type="checkbox"/> Sugar snaps peas | <input type="checkbox"/> Indian celery |
| <input type="checkbox"/> Tiger lily | <input type="checkbox"/> Green zucchini | <input type="checkbox"/> Shiitake mushroom |
| <input type="checkbox"/> Fairy slipper | <input type="checkbox"/> Japanese eggplant | <input type="checkbox"/> Vanilla bean |
| <input type="checkbox"/> Pink slipper orchid | <input type="checkbox"/> Iceberg lettuce | <input type="checkbox"/> Red raspberry |
| <input type="checkbox"/> Sheep sorrel [mountain sorrel] | <input type="checkbox"/> Blackcap | <input type="checkbox"/> Trailing blackberry |
| <input type="checkbox"/> Saskatton berry | <input type="checkbox"/> Black raspberry | <input type="checkbox"/> Asian Bok Choy |
| <input type="checkbox"/> Serviceberry | <input type="checkbox"/> Thimbleberry | <input type="checkbox"/> Salmonberry |

2. If any of the products were purchased, where are they imported from?

- | | |
|--|---|
| <input type="checkbox"/> Within lower Mainland | <input type="checkbox"/> From U.S |
| <input type="checkbox"/> Within B.C | <input type="checkbox"/> Outside of North America |
| <input type="checkbox"/> Within Canada | <input type="checkbox"/> Others: _____ |

3. If any of the products were purchased, would your restaurant consider buying it from the UBC farm if they are available?

- Yes
- No

4. Aside from the items listed above in Q1, are there other specialty items your restaurant would like to purchase from a local producer? If yes, please specify:

Scenario #5 (Group 10): UBC Farm: Exploring Alternative Routes to Enhance Viability

Community Supported Agriculture Feedback Form and Survey

2005 Weekly Partner Comment Form:



**UBC Farm
Community Supported Agriculture**

2005 Weekly Partner Comment Form

1. Name _____
2. How satisfied are you with the quality of this week's produce?
Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.
3. How satisfied are you with the freshness of this week's produce?
Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.
4. How satisfied are you with the quantity of produce this week?
Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.
5. What was your favourite item this week? _____
6. What was your least favourite item this week? _____
7. Additional comments/requests that may help us to improve both our service to you, and our CSA program as a whole:

Thank-you for your time and energy in this growing and learning process!

2005 End-of-Season Partner Survey:



**UBC Farm
Community Supported Agriculture**

2005 End-of-Season Partner Survey

1. Name _____

2. Affiliation with UBC and/or the UBC Farm:

3. How did you become involved in our CSA Pilot Project?

4. How satisfied were you with the quality of the produce?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

5. How satisfied were you with the freshness of the produce?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

6. How satisfied were you with the quantity of the produce?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

7. How satisfied are you with the level of customer service during the season?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

8. What was your favorite item? _____

9. What was your least favorite item? _____

10. How satisfied were you with the pick-up location (at the UBC Farm)?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

b. Suggestions of a more accessible pick-up location?

(Turn over —>)

11. How satisfied have you been with the 2005 CSA program overall?

Very Satisfied___, Somewhat___, Neutral___, Unsatisfied___, Very Unsatisfied___.

12. Would you consider joining the UBC Farm CSA program next season?

13. Suggestions for changes/improvements to our program:

14. Suggestions of aspects of the programs you'd like to see remain the same:

15. If we were to include a weekly newsletter in the produce box, what would you like to see included in it?

16. Additional comments/requests that may help us to improve both our service to you, and our CSA program as a whole:

17. May we contact you for further information, if needed?

b. Best way of contacting you:

Thank you for your time, energy and support all season long in this growing and learning process!

Appendix C: Product Analysis (Origin and Availability)

Scenario 2a (Group 6): Feasibility of Increasing Farm Provision of Specialty Items to UBC Sage Bistro

UBC Food Service Product Origin Analysis:

Origin of Products (Obtained from Dorothy Yip – UBC Food Services)

Chicken (fresh)

- 99% obtained from BC source
- rest from Alberta

Eggs (fresh)

- all obtained from BC source
- delivery via Neptune

*Turkey (fresh)

- obtained from Alberta, Manitoba and Ontario

*Beef (frozen)

- 90% obtained from Alberta
- rest from New Zealand and Uruguay

*Lamb (frozen)

- obtained from Australia and New Zealand

*Pork (frozen)

- obtained from BC and Alberta

*Veal (frozen)

- obtained from Ontario and Quebec

**delivered via Centennial Food Services*

BC Agricultural Protein Product Availability Analysis:

BC Agricultural Commodity List (Protein Products Available in BC):

Poultry:

Broilers

Chickens

Ducks (including eggs)

Game Birds (Commercial)

Geese (including eggs)

Pullets for egg production

Pullets for meat production

Turkeys

Cattle and Calves:

Bulls

Calves

Cows

Heifers

Steers

Sheep and Lambs Sheep and Lambs:

Ewes

Lambs

Rams

Swine:

Boars

Sows

Wieners

Other Red Meat:

Alpacas

Buffalo/Bison
Deer
Donkeys
Elk
Goats (meat)
Horses
Llamas
Mules
Rabbits

From: Ministry of Agriculture

Scenario 2b (Group 4): Feasibility of Increasing Farm Provision of Specialty Items to UBC Sage Bistro

Sage Bistro Sample Menu:

Soup: *Chef's creation of the day.* \$4.75
Appetizer: *Mini lamb burgers with roast spiced peppers* \$5.00
Entrée: *Braised Chicken, Mexican mole sauce, pecan rice and assorted vegetables.*
Suggested beverage: Corona Beer \$ 12.95

Steamed Savoy cabbage rolls filled with braised lamb, garlic confit, aromatic vegetables and veal glaze served with "Anna" potatoes, and mixed vegetables.
Suggested wine: Burrowing Owl Cabernet Sauvignon \$ 12.95

Pan seared blackened catfish, roast tomato and shallot compote, caramelized onion risotto and spring vegetables.
Suggested wine: Stonliegh Riesling \$ 12.95

Vegetarian:

Yukon gold potato, onion, poblano chilies, and aged cheddar strudel with salsa and sour cream. Suggested beverage: Backwoods Lager \$11.95

Baked stuffed peppers filled with quinoa, ratatouille and boursin cheese with risotto and pepper coulis Suggested wine: Sandhill Merlot \$11.95

Pasta:

Fusilli, coconut sherry reduction, poached chicken breast, Thai basil, and tiger prawns. Suggested wine Suggested wine: Columbia Crest Chardonnay \$11.95

Sandwich:

Smoked turkey breast, bacon, mayonnaise, beef steak tomatoes, iceberg lettuce, on French bread. Served with organically grown UBC farm greens

Suggested wine: Tinborn Creek Pinot Noir \$8.95

Salad:

Pan seared tuna, prosciutto, olive oil poached tomatoes, fingerling potatoes, haricot verts, tossed in black olive vinaigrette.

Suggested wine: Blue Mountain Pinot Gris \$13.95

Hand peeled shrimp, avocado, butter lettuce, hard boiled egg, tomatoes and brandy sauce. Suggested wine: Montana Sauvignon

Blanc

\$12.95

Chef de cuisine -Andreas Koli

Analysis of availability for UBC Farm items that Sage Bistro is interested in purchasing:

Food Item	Can it be grown on UBC Farm?		
	Yes x = 1 year establishment, xx=2-3 years establishment xxx= greater than 3 year's establishment	No	Cannot be grown in Canada
Watercress Greens	Climatically possible, but requires very different culture (semi-aquatic)		
Kohlrabi Greens	X		
Rapini Greens	X		
Red Swiss Chard	X		
Butter Head Lettuce	X		
Loose Leaf Lettuce	X		
Mushrooms: The Farm can grow mushrooms but they require a very different culture than vegetables. Students have started mushroom projects (unsuccessfully) on the farm before. The Farm would need students interested in mycology to come forward with the intention of starting a mushroom operation; but we couldn't easily incorporate them into the vegetable operation.			
Chanterelle Mushrooms			
Black Chanterelle Mushrooms			
Crimini Mushrooms			
Enoki Mushrooms			
Morel Mushrooms			
Lobster Mushrooms			
Oyster Mushrooms			
Porcini Mushrooms			
Portobello Mushrooms			
Shitake Mushrooms			
Snow Peas	X		
Snap Peas	X		
Green Peas	X		
Sugar Snap Peas	X		

Potatoes: The Farm is reluctant to grow potatoes currently because of wireworm damage thus it is doubtful that any production will be done except on an experimental basis.

Boniato Potatoes			
Baby Purple Potatoes			
Yellow Finnish Potatoes			
Yukon Gold Potatoes			
Sweet Potatoes			
Black Radish	?	?	
Daikon Radish	?	?	
Cherry Rhubarbs	Xx		
Strawberry Rhubarbs	Xx		
Boniato Roots	?	?	
Celery Roots	X		
Ginger Roots		X	
Horseradish Roots	?	?	
Jicama Roots	?		
Malanga Roots	?		
Parsley Roots	X		
Sunchoke Roots	Xx		
Taro Roots		X	
Yucca, Cassava Roots		X	
Salsify	?	?	

Sprouts: better suited to indoor/greenhouse production with capital investment. Definitely a good project for a student to start up, however.

Alfalfa Sprouts			
Clover Sprouts			
Garlic Sprouts			
Lentil Bean Sprouts			
Mung Bean Sprouts			
Onion Sprouts			
Pea Sprouts			
Pumpkin Seed Sprouts			
Radish Sprouts			
Salad Sprouts			
Soybean Sprouts			
Sunflower Sprouts			
Three Bean Sprouts			
Wheat Sprouts			
Alfalfa w/ Onion Sprouts			
Alfalfa w/ Garlic Sprouts			
Alfalfa w/ Dill Sprouts			
Gourmet Flavoured Sprouts			
Soft Cizelle Squash	X		
Chayote Squash	X		
Soft Scaloppini Squash	X		
Soft Sunburst Squash	X		
Soft Zucchini Squash	X		
Hard, Small Buttercup Squash	X		
Hard, Small Butternut Squash	X		

Grapes: Possible to grow table grapes on site, an excellent 2000 student report detailed recommended varieties. We just need someone to pick up the ball again if we are interested in establishing table grape varieties.

Christmas Robe Grapes (Red)			
Emperatriz Grapes (Red)			
Crimson Seedless Grapes (Red)			
Exotic Black Grapes			
Black Roboer Grapes			
Fantasy Seedless Grapes (Black)			
Guava		X	
Key Limes		X	
Kiwi Fruit		X (OK on Vancouver Island, likely too wet at UBC Farm. Maybe.)	
Kumquats		X	
Lychee Nut		X	
Santa Claus Melon	X		
Allsweet Watermelon	X		
Crimson Sweet Watermelon	X		
Icebox Watermelon	X		
Jubilee Watermelon	X		
Peacock/Klondike Watermelon	X		
Triploid Hybrid Watermelon	X		
Yellow Meat Watermelon	X		
May Grand Nectarine		X	
Fantasia Nectarine		X	
Flamekist Nectarine		X	
Fairlane Nectarine		X	
Red Jim Nectarine		X	
Summer Grand Nectarine		X	
Papaya		X	
Passion Fruit		X	
May Crest Peach		X	
Spring Crest Peach		X	
Spring Lady Peach		X	
June Lady Peach		X	
Flavourcrest Peach		X	
Redtop Peach		X	
Flamecrest Peach		X	
Elegant Lady Peach		X	
O'Henry Peach		X	
Cal Red Peach		X	
Fairtime Peach		X	
Carnival Peach		X	
White Peach		X	
Anjou Pear	Xxx		
Bartlett Pear	Xxx		
Bosc Pear	Xxx		
Comice Pear	Xxx		
Seckel Pear	Xxx		

Pepino Melon	X		
Fuyu Persimmon		X	
Hachiya Persimmon		X	
Baby Pineapple		X	
Black Beaut Plums	Xxx		
Casselman Plum	Xxx		
Dinosaur Plum	Xxx		
Friar Plum	Xxx		
Kelsey Plum	Xxx		
Laroda Plum	Xxx		
Red Beaut Plum	Xxx		
Santa Rosa Plum	Xxx		
Pomegranate		X	
Pummelo		X	
Perfumed Quince	Xxx		
Pineapple Qunice	Xxx		
Carambole Starfruit		X	
Sugar Cane Batons		X	
Tamarind, Tamarindo		X	
Artichokes	X		
Beets (all)	X		
Bok Choy (all)	X		
Carrots	X		
White Carrots	X		
Cauliflower (all colours)	X		
Celery	X		
Eggplant	X		
Japanese Eggplant	X		
Haricot-Vert	X		
Leek	X		
Red Oak Lettuce	X		
Romaine Lettuce	X		
Greenleaf Lettuce	X		
Iceberg Lettuce	X		
Green Onion	X		
Black Radish	X		
Turnip	X		
Thai Eggplant	X		
Daikon (Sprouts)	?		
Waterchestnuts	?		
Purple Asparagus	Xxx		
White Asparagus	Xxx		
Fava Beans	X		
French (Haricot-Vert) beans	X		
Vanilla Beans		X (unsure here – vanilla bean is a tropical orchid, maybe	
Ancho Chiles	?		
Cascabel Chiles	?		
Chipotle Chiles	?		
De Arbol Chiles	?		
Pasila Chiles	?		
Poblano Chiles	?		
Jalapeno Chiles	?		
Cubanelle Chiles	?		

Fresno Chiles	?		
Hothouse Cucumber	?		
Nise Fennel	X		
Belgian Endive Greens (White)	X		
Belgian Endive Greens (Red)	X		
Frisee Greens	X		
Calabaza Squash (Hard, Large)	X		
Hubbard Squash (Hard, Large)	X		
Mediterranean Squash (Hard, Lrg)		X	
Orange Marrow Squash (Hard, Lrg)	X		
Spaghetti Squash (Large)	X		
Sweet Meat Squash (Hard, Lrg)	X		
Vineripe Cherry Tomatoes	X		
Green Table Queen Tomatoes	X		
Roma Tomatoes	X		
Slicers Tomatoes	X		
Beefsteak Tomatoes	X		
Teardrop Tomatoes	X		
Hydroponic Tomatoes		X	
Sundried Red Tomatoes		X	
Sundried Yellow Tomatoes		X	
Crab Apples	Xxx		
Lady Apples	Xxx		
Castlebrite Apricots		X	
Patterson Apricots		X	
Katy Apricots		X	
Flamingo Gold Apricots		X	
Blenheim Apricots		X	
Asian Pear	Xxx		
Blackberries	X		
Blueberries	Xx		
Cranberries	Xx		
Gooseberries	Xx		
Raspberries	Xx		
Strawberries	Xx		
Blood Orange		X	
Bing Cherries		X	
Barbados Cherries		X	
Ranier Cherries		X	
Clementine Mandarins		X	
Honey Mandarins		X	
Royal Mandarins		X	
Satsuma Mandarins		X	

Minneola Tangelos		X	
Orlando Tangelos		X	
Dancy Tangerine		X	
Algerian Tangerine		X	
Fairchild Tangerine		X	
Honey Tangerine		X	
Temple Tangors		X	
Halaway Dates		X	
Khadrawy Dates		X	
Medjool Dates		X	
Noor Dates		X	
Zahidi Dates		X	
Black Mission Figs	?		
Calimyra Figs	?		
Kodata Figs	?		
Ray Grapefruit		X	
Rio Red Grapefruit		X	
Marsh Ruby Grapefruit		X	
Star Ruby Grapefruit		X	
Perlette Green Grapes	See notes on grapes above		
Thompson Seedless Green Grapes			
Sugraone Green Grapes			
Calmeria Green Grapes			
Red Flame Seedless Grapes			
Red Ruby Seedless Grapes			
Emperor Red Grapes			
Red Globe Grapes			

Appendix D: *Local Food Conference Materials*

Scenario 2c (all groups: 11, 15, 16): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

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 endeavor 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 endeavors 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

Scenario 2c (Group 11): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

Local Foods Conference Materials and Information:

Food Item Quantity 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)

Conference Recipes and Costs:

Friday Night Reception

<u>Cheese</u>	<u>Origin</u>	<u>Cost per kg</u>	<u>Cost for 75kg</u>	<u>Cost per person</u>
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 pasteurized Cheese	BC	\$29.00	\$2,175.00	\$2.90

Total Cost: \$8,209.50

Cost per Person: \$10.95

<u>Wine Name</u>	<u>Origin</u>	<u>Type</u>	<u>Cost/ 0.75 L bottle</u>	<u>Cost/ml</u>	<u>Cost/ Person</u>	<u>Cost for 750 ppl</u>
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

Canada

Cost/Person: \$ 0.46

***original recipe from Food Network**

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

Canada

Cost/Person: \$ 1.16

***original recipe from Food Network**

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
Canada

Cost/Person: \$ 0.66

***original recipe from Food Network**

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
Canada

Cost/Person: \$ 0.14

***original recipe from Food Network**

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
Canada

Cost/Person: \$ 0.95

***original recipe from Food Network**

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
Canada

Cost/Person: \$ 0.94

***original recipe from Food Network**

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

Cost per person: \$0.22

***original recipe from Nancy's Kitchen**

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

Cost per person: \$0.08

***original recipe from Food Reference**

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
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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/person: \$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

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 Manual 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)**
-

Scenario 2c (Group 15): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

Local Foods Conference Materials and Information:

Proposed Conference Menu:

Breakfast

Scrambled Eggs
Turkey Sausage
Multigrain Pancakes with Maple Syrup
Rice Krispies, Bran Flakes
Multigrain & Sourdough Toast with assorted jams and peanut butters
Fresh Cantaloupe, Watermelon, Honeydew & Peaches
Tea, Coffee, Milk, Orange Juice

Lunch

Assorted Deli Sandwich Platter
Purple, Red & Green Pepper Salad, Coleslaw
Garlic and Potato Soup, Squash Soup
Apple Crisp
Tea, Coffee, Milk, Water

Snack

Seasonal Fruit Platter with Yogurt Dip

Dinner

Roast Beef
Grilled Chicken with Herbs
Vegetarian Lasagna
Brown Sugar Butternut Squash
Green Beans with Hazelnuts
Wild Rice Pilaf
Parsley Potatoes
Mixed Salad Greens with Poppy Seed Dressing
Caesar Salad
Cheesecake with Raspberry Coulis
Peach Cobbler
Tea, Coffee, Milk, Water

Example Recipe:

Recipe Category: Local Food Conference-
LUNCH

Squash Soup

Yield: 500

Cooking Temp: N/A

Preparation Time: 60 min

Cooking Time: 65 min

<i>INGREDIENTS</i>	<i>AMOUNT</i>	<i>AMOUNT OTHER</i>	<i>STEP</i>	<i>DIRECTION</i>
Butternut or Acorn Squash Olive Oil	150 kg 2485 L		1	Preheat oven to 350 F
			2	Slice in half
			3	Rub on cut faces of squash
			4	Place squash cut side down on baking sheets and roast in the middle of the oven for about 40 minutes
Unsalted Butter	1.5 L		5	Melt in soup pot over medium heat
Onion (diced)	55			
Carrot (peeled and diced)	115		6	Add onion and carrot, sauté for 4 minutes
Garlic Cloves (diced)	175			
Curry Powder	800 ml		7	Reduce heat, add garlic and curry powder, sauté for 2 minutes longer
Chicken Broth	85 L		8	Add chicken broth
			9	Scoop the squash out of its skin and into the soup pot. Heat on medium high and bring to a gentle boil. Cover and simmer for 20 min
			10	Remove from heat and puree.
Cream (35%)	15 L		11	Add right before serving

Ingredient List:

INGREDIENT	AMOUNT	DISTRIBUTOR	PRICE	ORIGIN
- VEGETABLES -				
Broccoli florets	15 kg	DO	136.26	L
Cabbage, purple	30 kg	DO	169.00	L
Carrots	13.5 kg	UF	110.00	L
Cucumber	1.5 kg	DO	19.00	L
Eggplant	14 kg	DQ	57.75	L
Garlic	1 kg	UF	120.00	L
Green beans	20 kg	DO	182.61	L
Green onion	4.5 kg	DO	56.50	L
Green pepper	10 kg	DO	140.00	L
Mushrooms	2.0 kg	S	7.58	L
Onion	22 kg	UF	90.00	L
Parsley	1.5 kg	DO	6.10	L
Potatoes	12 kg	DO	11.00	L
Purple pepper	4.5 kg	DO	43.00	L
Red potatoes	35 kg	DO	127.82	L
Romaine lettuce	75 kg	DO	471.00	L
Spinach	8.5 kg	S	51.94	NL
Squash	60 kg	DO	243.00	L
Tomatoes, diced, canned	10 kg	DO	30.90	NL
Tomatoes, fresh	30 kg	DO	81.25	L
Zucchini	1 kg	DQ	7.75	L
- FRUIT -				
Apples	52 kg	DO	57.30	L
Cantaloupes	65	DO	154	L
Honeydew	50	DO	227	L
Peaches, sliced (fresh)	35 kg	DO	472.00	L
Raspberries (frozen)	5.5 kg	DO		L
Watermelon	35	DO	927.5	L
- MEAT AND MEAT ALTERNATIVES-				
Chicken Breasts	50 kg	SC	372.90	L
Chicken broth	12.5l	DO	50.86	L
Eggs	87 dozen	SC	176.91	L
Hazelnuts	1.5 kg	DO	19.40	L
Peanut butter packages	7.5 kg	DO	33.75	NL
Round roast	70 kg	HF	882.00	L
Sliced smoked turkey	12 kg	SC	162.62	L
Turkey sausages	28 kg	HF	316.68	L
- MILK PRODUCTS-				
Butter, unsalted	11 kg	S	92.25	L
Cheddar cheese	4.5 kg	DO	53.00	L
Cream	75l	S	216.75	NL
Cream cheese	9 kg	S	62.88	NL
Milk	150 L	S	169.50	L
Mozzarella cheese	6 kg	S	60.73	NL
Parmesan cheese	1.2 kg	S	26.28	NL
Ricotta cheese	6 kg			
Sour cream	2.5 kg	S	10.36	NL
Sweetened condensed milk	280 oz	S	52.74	NL
Sliced cheeses	96 Slices	S	62.40	NL
- GRAIN PRODUCTS -				
Bran Flakes	8 kg	DO	9.53	NL
Brown bread	24 loaves	DO	239.04	SL
Corn starch	1.5 kg	S	2.40	L
Croutons	500 g	S	2.40	L

INGREDIENT	AMOUNT	DISTRIBUTOR	PRICE	ORIGIN
Lasagna noodles	400 oz	DO	229.43	SL
Long grain white rice	3.5 kg	DO	13.50	NL
Multi grain Pancakes	6.5 kg	DO	116.37	SL
Oats	25 l	DO	47.30	SL
Rice Krispies	10 kg	DO	180	NL
Self-rising flour	3.75 kg	DO	7.00	SL
Sourdough bread	14 loaves	DO	210.00	SL
Wild Rice	3.0 kg	DO	43.08	NL
- OTHER -				
Apple cider vinegar	6 l	DO	19.14	NL
Black pepper	500 ml	S	3.90	NL
Bottled water	1500 btl	DO	825	L
Brown sugar	16.5 kg	DO	41.25	SL
Cinnamon	125 ml	DO	1.80	NL
Coffee – Regular	250 l	DO	108.00	SL
Coffee- Decaf	125 l	DO	60.00	SL
Curry powder	500 ml	S	13.40	NL
Dijon mustard	2 l	DO	20.32	NL
Graham cracker crumbs	1.8 kg	S	6.84	SL
Ground Taragon	25 g	DO	15.00	L
Honey	4 l	DO	38.00	L
Lemon juice	1.5 l	DO	13.28	SL
Maple syrup	5 L	DO	63.00	SL
Mayonnaise	5 l	S	16.6	L
Mustard powder	150 ml	S	4.96	L
Olive oil	20 l	DO	379.20	NL
Orange juice	35 l	DO	373.00	NL
Pineapple juice	4 l	DO	16.60	NL
Poppy seeds	500 ml	S	1.90	SL
Raspberry jam	10 kg	DO	100.00	L
Salt	725 g	S	2.26	NL
Tea	1000 bags	DO	185.80	NL
Vanilla	175 ml	S	1.33	NL
White sugar	10 kg	DO	21.90	SL
White vinegar	1 l	S	0.97	NL
Worcestershire Sauce	375 ml	S	3.2	NL
Yellow mustard	2.5 l	DO	25.40	NL

LEGENDS:

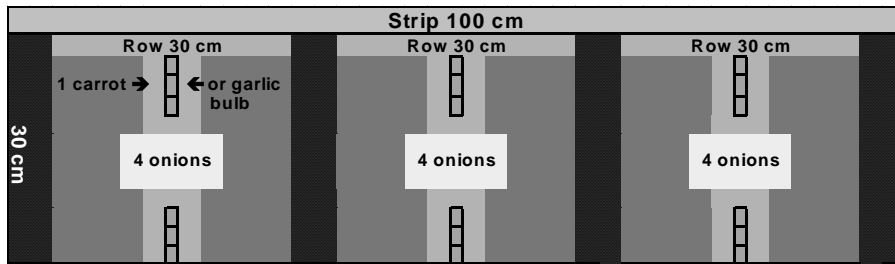
Distributors:

Discovery Organics (DO); UBC Farm (UF); Sysco (SC); Hillside Farms (HF)

Origin:

Local (L); Semi-Local (SL); Non-Local (NL)

Production Design for Companion Planting of Carrots, Garlic and Onions at the UBC Farm:



Estimated Space and Cost for Production of Carrots, Garlic and Onions at the UBC Farm:

Product	Amount Required (number)	Production Capability (plants / m ²)	Production Area Needed (m ²)	Cost Estimate		Total
				Production	Labour	
Carrots	225	25	8	10 \$	100 \$	110 \$
Garlic	300 - 350	15	8	20 \$	100 \$	120 \$
Onions	200	36	8	10 \$	80 \$	90 \$
						320 \$

Note: “The **production capability** is an estimate based on the chosen production design, and the **estimated cost** is based on seed costs, compost, and labour. Labour is the largest cost and is based on a 3 month growing period and approximately an hour of maintenance a week at 10 \$/hour. Garlic has an extra associated production cost and needs to be grown in a greenhouse three months before the other products”(Group 15).

Pamphlet (double sided):



UBC FARM CONTINUED:

- With reference to our menu, we have chosen to get onions, garlic and carrots from UBC Farm.
- The production capacity is an estimate based on the chosen production design, and the estimated cost is based on seed costs, compost, and labour.
- Labour is the largest cost and is based on a 3 month growing period and an hour of maintenance a week at 10 \$/hour. Carrots has an extra associated production cost and needs to be grown in a greenhouse three months before the other products.
- A farmer should be employed to manage this field and could also produce more of the same products that could be sold to AMS food services, Sage Bistro, UBC Farm, etc.

Product	Amount Required	Production		Cost		Total
		Quantity (kg)	Area/Market (sqm)	Production (kg)	Labour (hours)	
Onions	25	25	0	250	250	250
Garlic	20-25	25	0	250	250	250
Carrots	20	20	0	200	200	200

Assessment of the Social Limitations of the UBC Farm:

- The UBC farm needs greater support and acknowledgement from the UBC students, faculty, course curriculum, and the surrounding Grey Point community to become the successful example of sustainable practices, applied teaching, and community interaction that the Faculty of Land and Food Systems.
- Current limitations of the farm: (1) the lack of business connection with many of the food producers on campus, and (2) the inconsistent labour force which relies heavily upon student volunteers.
- The development of a more viable UBC farm with long-term sustainability can only be accomplished with the gain of a more reliable and long-term work force.



FINDINGS:

- Choosing to analyze our menu items based on number of items and financial contributions, we have determined the following with regards to contributions to the local, semi-local non-local markets. Based on:
 - **Number of items:** 22.8% Non-local, 18.8% Semi-local, 58.4% Local
 - **Financially:** 10% Non-local, 12% Semi-Local, 78% Local

CONCLUSION:

It has been determined from the literature and data, that by using a food cost of 30% and a budget of \$17.75 per person, that a local food event can be held using food both from UBC farm and local distributors. It is our hope that after reviewing our paper, that we have abolished some of the misconceptions that AMSFBD may have with regards to local foods and therefore to persuade AMSFBD to become a contributor in achieving long term sustainability of our food system and our environment, and food security and health of our community.



RECOMMENDATIONS:

- **Continued Cooperation with UBC** – continued relationship between AMSFBD and UBC Farm.
- **UBC Farm & Labour** – capital investment.
- **Farm volunteers & conference volunteers** – increase UBC Farm labour force.
- **Corporate sponsorship** – alleviate financial burdens.
- **Create stronger ties with local food distributors** – positive reinforcement loop.
- **UBCFSP and the food sustainability model** – continue to re-evaluate.



FEASIBILITY OF RELOCATION:



SCENARIO 2C:

FEASIBILITY OF SUPPLYING A FOOD CONFERENCE WITH LOCAL FOODS FROM UBC FARM

PRESENTED BY:

ALLISON BUNNEY
BRIAN WALLACE
JUDY FUNG
MAN SHAN LIU

RAWINDER DHALIWAL

ROBYN JOHNSON
TREEVA ELLIOTT

*Our research group has focused on the re-localization of the current food system; more specifically, we studied the feasibility of supplying 750 members of the CFSC with a food conference with local foods (Group 15, Spring 2005).

UBCFSP – Spring 2005. In partnership with AMSFBD





THE VISION STATEMENT:

- The group agreed that the vision for sustainability of the UBC food system is an ambitious, multi-faceted approach that broadly covers all aspects of the food system; from nutritional quality and food type to the ecological and social consequences that are undoubtedly intertwined within the food system.
- In reference to each guiding principle, the group identified with the ecological emphasis. We observed that group members from certain educational specialties, for example, Agroecology, felt especially strongly regarding the ecological footprint that the UBC food system would have upon the global environment.
- Students studying food and nutrition felt that the nutritional adequacy and food security of the local food system were paramount concerns in the vision statement.

PROBLEM DEFINITION:

- In support of food and land sustainability, the manager of the Alma Mater Society Food and Beverage Department, Nancy Toogood, has requested information related to the feasibility of organizing a local food conference at UBC for the Community Food Security Coalition (CFSC).
- The proposed conference would be held in August, 2006, with the theme "Eating Locally, Thinking Globally". The research team has been approached to determine the feasibility of supplying the conference with local foods from UBC farm.

DEFINITION OF LOCAL:

- For the purpose of this project we have decided to define local as products being grown and processed in BC. Products that are processed in BC but not grown have been "semi-local". Non-local foods will include food items that are not grown or processed in BC.

CURRENTLY AMSPD PURCHASES LESS THAN 30% OF THEIR PRODUCE LOCALLY WHEN IT WAS FOUND THAT 80% COULD BE PURCHASED LOCALLY!



METHODOLOGY:

- To focus on the closure of the April footprint to re-localize their food distributors, including a connection directly with the UBC farm.
- Traditionally, AMSFBD has purchased less than 30% of their products from local food providers, when it has been discovered that 83% could be purchased locally.
- Goal = to have 80% of our food products come from local food providers, and 20% from non-local food providers.
- Most feasible time of the year to hold the conference is during the month of August, as it has been determined that 95% of the local produce grown in BC is grown during this month. = more variety

MENUS:

Breakfast
 Scrambled Eggs, Turkey Sausage
 Multigrain Pancakes with Maple Syrup
 Rice Krispies, Bran Flakes
 Multigrain & Sourdough Toast
 with assorted jams and peanut butters
 Fresh Cantaloupe, Watermelon, Honeydew & Peaches
 Tea, Coffee, Milk, Orange Juice
Lunch
 Assorted Deli Sandwich Platter
 Purple, Red & Green Pepper Salad
 Coleslaw, Garlic and Potato Soup
 Squash Soup, Apple Crisp
 Tea, Coffee, Milk, Water
Snack
 Seasonal Fruit Platter with Yogurt Dip
Dinner
 Roast Beef, Grilled Chicken with Herbs
 Vegetarian Lasagna, Brown Sugar Butternut Squash
 Green Beans with Hazelnuts, Wild Rice Pilaf
 Parsley Potatoes, Mixed Salad Greens with Poppy Seed Dressing
 Caesar Salad, Cheesecake with Raspberry Coulis, Peach Cobbler



BUDGET:

Total Budget Per Person Per Day: \$ 17.75	
Snacks	\$ 1.50
Breakfast	\$ 3.00
Lunch	\$ 4.25
Dinner	\$ 9.00
Total	\$ 17.75

COMMUNITY FOOD SECURITY COALITION

DISTRIBUTORS:

- We will be using four distributors:
 - UBC Farm
 - Sysco
 - Discovery Organics
 - Hills Food

SPONSORSHIP:

- Potential sponsors for the conference include:

- BC Dairy Foundation
- BC food protection Association
- BC full growers association
- BC greenhouse growers association
- BC nut house
- BC organic farmers association
- Frugal Planet
- Nature's Path foods
- The Certified organic association of BC



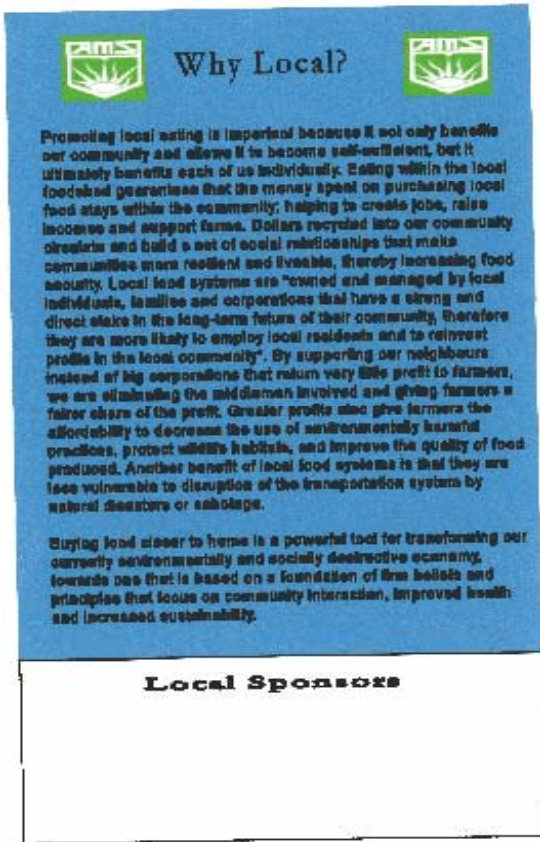
UBC FARM

- The amount of food that can be produced is limited by the availability of paid workers and time. There are large areas on the farm that can be that are not presently being cultivated.

Menus:

Breakfast
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 Multigrain Pancakes with Maple Syrup
 Rice Krispies, Bran Flakes
 Multigrain & Sourdough Toast
 with assorted jams and peanut butters
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 Seasonal Fruit Platter with Yogurt Dip
Dinner
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 Vegetarian Lasagna, Brown Sugar Butternut Squash
 Green Beans with Hazelnuts, Wild Rice Pilaf
 Parsley Potatoes, Mixed Salad Greens with Poppy Seed Dressing
 Caesar Salad, Cheesecake with Raspberry Coulis, Peach Cobbler

Advertisement Table Tents:



PAMS Why Local? **PAMS**

Promoting local eating is important because it not only benefits our community and allows it to become self-sufficient, but it ultimately benefits each of us individually. Eating within the local foodshed guarantees that the money spent on purchasing local food stays within the community, helping to create jobs, raise income and support farms. Dollars recycled into our community circulate and build a set of social relationships that make communities more resilient and livable, thereby increasing food security. Local food systems are "owned and managed by local individuals, families and corporations that have a strong and direct stake in the long-term future of their community, therefore they are more likely to employ local residents and to reinvest profits in the local community". By supporting our neighbours instead of big corporations that return very little profit to farmers, we are eliminating the middlemen involved and giving farmers a fairer share of the profit. Greater profits also give farmers the affordability to decrease the use of environmentally harmful practices, protect wildlife habitats, and improve the quality of food produced. Another benefit of local food systems is that they are less vulnerable to disruption of the transportation system by natural disasters or sabotage.

Buying food closer to home is a powerful tool for transforming our currently environmentally and socially destructive economy, towards one that is based on a foundation of firm beliefs and principles that focus on community interaction, improved health and increased sustainability.

Local Sponsors



PAMS "Fresh Is Best" **PAMS**

- Local Food Conference -

Local Sponsors

Scenario 2c (Group 16): Feasibility of Supplying a Food Conference with Local Foods from UBC Farm

Local Foods Conference Materials and Information:

Example contract with UBC Farm (from Group 15 spring 2004):

Group 15 Spring 2004: UBC Farm Food Supply Contract

FOOD SUPPLY CONTRACT

TO: UBC FARM
6182 SOUTH CAMPUS ROAD, UBC, VANCOUVER, BC

FROM: AGORA FOOD SERVICES
MCMILLAN BUILDING, UBC, VANCOUVER, BC

SUBJECT: WEEKLY FOOD SUPPLY

DATE: 1/13/2005

CC: FARM TEAM

TO BE EFFECTIVE SEPTEMBER 2004

UBC Farm has been given the contract to deliver a weekly supply of selected produce to Agora Food Services. Deliveries will take place every Monday at 9:00 am, at Agora (in the basement of the MacMillan Building, on the UBC campus). All payments will be in cash and will be made at the time of delivery.

Possible Sponsors:

1. BC Dairy Foundation
 2. BC Food Protection Association
 3. BC Fruit Growers' Association
 4. BC Greenhouse Growers' Association
 5. BC Salmon Farmers Association
 6. Certified Organic Association of BC
 7. Nature's Path Foods
 8. Meinhardt Fine Foods Inc
 9. Capers Community Market
 10. Farm Folk/City Folk
 11. Happy Planet
 12. Hills Foods Ltd.
 13. Natural Factors
 14. Organika
 15. SISU
 16. Yves Veggie Cuisine
-

Proposed Menu:

MENU

BREAKFAST

- ❖ *Fresh Nectarines, Peaches, Cherries, Apples and Grapes*
- ❖ *Blueberry Muffins*
- ❖ *Croissants*
- ❖ *Apple Juice, Orange Juice, Bottled Water, Coffee and Tea*

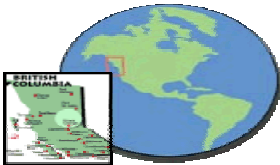
SNACK

- ❖ *Oatmeal Raisin Cookies*
- ❖ *Original 7 Grain Honey Brown Crackers*
- ❖ *Cheese*
- ❖ *Apple Juice, Orange Juice, Bottled Water, Coffee and Tea*

LUNCH

- ❖ *Red Potato Salad*
- ❖ *Summer Pasta Salad*
- ❖ *Chicken Feta Wraps*
- ❖ *Grilled Veggie Sandwiches*
- ❖ *Deli Sandwiches*
- ❖ *Apple Juice, Orange Juice, Bottled Water, Coffee and Tea*

Community Food Security Coalition



“Eating Locally, Thinking Globally”

MENU

DINNER

Soup:

- ❖ *Creamy Corn Chowder*
- ❖ *Squash Soup*

Salad:

- ❖ *Caesar Salad*
- ❖ *Apple Cranberry Salad*

Side Dish:

- ❖ *Oven Roasted Potatoes*
- ❖ *Brown Rice Pilaf*
- ❖ *Glazed Baby Turnips and Carrots*

Main Course

- ❖ *West Coast Salmon in a Creamy Dill Sauce*
- ❖ *Garlic Chicken*

Desert

- ❖ *Apple Pie*
- ❖ *Peach Pie*
- ❖ *Fresh Nectarines, Cherries, and Grapes*

Feature Wine

- ❖ *Mission Hill Chardonnay*
- ❖ *Mission Hill Merlot*

Community Food Security Coalition



“Eating Locally, Thinking Globally”

Menu Items and Ingredient Quantity Predictions:

Example: Dinner

Soup:

- ❖ *Creamy Corn Chowder*: serves 6 ($6 \times 59 = 350$)

6 med. Potatoes, peels and cubed	→	354 potatoes
2 med. Onions, chopped	→	118 onions
1 tbsp dried parsley flakes	→	885 ml
4 chicken bouillon cubes	→	236 cubes
1 stick butter	→	59 sticks
¼ tsp black pepper	→	73.75 ml
1 (13 oz) can evaporated milk	→	22.7 L
1 pkg. Frozen corn, thawed	→	59 pkg.

- ❖ *Squash Soup*: serves 6 ($6 \times 59 = 350$)

2 tbsp unsalted butter	→	25 sticks
1 small onion, chopped	→	59 onions
5 ml rosemary	→	295 ml
1 small butternut squash, peeled and in chunks	→	59 squash
1.5 L chicken stock	→	88.5 L
250 ml heavy cream	→	14.75 L
5 ml salt	→	295 ml
2/5 ml freshly ground white pepper	→	147.5 ml
hot pepper sauce	→	

Salad:

- ❖ *Caesar Salad*: serves 4 ($4 \times 100 = 400$)

1 heart of romaine lettuce	→	400 lettuce heads
¾ cup oil	→	18.75 L
1/3 cup parmesan cheese	→	8.325 L
3 tbsp lemon juice	→	4.5 L
1-2 tbsp minced onion	→	3 L
1 tsp salt	→	500 mL
¾ tsp dry mustard	→	375 mL
½ tsp Worcestershire sauce	→	250 mL
½ tsp garlic salt	→	250 mL
¼ tsp freshly ground pepper	→	125 mL
Caesar salad croutons	→	
1 can anchovy fillets	→	100 cans

- ❖ *Apple Cranberry Salad*: serves 8 ($8 \times 38 = 300$)

10 cups of salad greens	→	380 cups
2 med apples, sliced	→	76 apples
1 cup walnuts, toasted	→	9.5 L
1 cup sweetened dried cranberries	→	9.5 L
½ cup of sliced green onions	→	19 cups

¾ cup of raspberry vinaigrette dressing → 7.125 L

Side Dish:

❖ *Oven Roasted Potatoes:* serves 8 (8 x 50 = 400)

1 kg of red potatoes → 50 kg

80 mL olive oil → 4 L

2 tbsp of rosemary → 1.5 L

1 tbsp salt → 0.75 L

1 tbsp pepper → 0.75 L

❖ *Brown Rice Pilaf:* serves 4 (4 x 100 = 400)

¾ cup uncooked brown rice → 18.75 L

2 tbsp butter → 37.5 sticks

1 ½ cup chopped onion → 100 white onions

1 clove of garlic → 100 cloves

2 carrots, sliced → 200 carrots

2 cups of mushrooms → 200 cups

2 eggs, beaten → 200 eggs

¼ cup chopped fresh parsley → 25 cups

❖ *Glazed Baby Turnips and Carrots:* serves 4 (4 x 150 = 500)

1 pound baby turnips → 56.7 kg

¾ pound baby carrots → 42.5 kg

1 ½ tbsp unsalted butter → 23.4 sticks

½ teaspoon sugar → 0.94 L

Salt and pepper

Main Course

❖ *West Coast Salmon in a Creamy Dill Sauce:* serves 4 (4 x 88 = 350)

454g Salmon Filets → 38.852 kg

½ tsp. finely shredded lemon peel → 220 mL

1 (8 oz) carton plain low fat yoghurt → 20.8 L

¼ cup sliced green onions → 5.5 L

¼ cup snipped fresh dill or 1 tsp dried dill weed → 330 mL

1 tbsp capers → 1.32 L

❖ *Garlic Chicken:* serves 4 (4 x 88 = 350)

4 skinless, boneless chicken breast halves → 352 breast halves

4 garlic cloves → 352 cloves

2 tbsp butter → 25 stick

Salt and pepper

Budgeting:

Category	Ingredients	Quantity	Distributor	Price/ Unit	Cost
Fruits	Nectarines	150 pcs	Discovery Organics	\$38.95/ 54 or 60 ct 18 lb	\$116.85
	Peaches	150 pcs	Discovery Organics	\$ 29.50/ 42 or 48 or 54 ct 20 lb	\$88.50
	Apples	226 pcs	Discovery Organics	\$ 37.50/ 113 ct 38 lb	\$75.00
	Cherries	50 lbs		\$47/ 20 lb	\$141.00
	Blueberries	14.25 L = 6kg		\$11.0/ 5 lb	\$33.00
	Dry Cranberries	9.5 L = 4kg		\$5.31/ 750 g	\$26.53
	Lemon Juices	4.5 L		\$0.83/ 125 ml	\$30.00
	Lemon peel	220 ml = 18 pcs		\$0.7/ pcs	\$12.60
Vegetables	Potatoes	150 kg	LMVD**	\$ 8.5/ 50 lb 100 ct	\$60.00
	Onions	35kg	LMVD	\$ 8.0 / 50 lb	\$10.00
	Green onions	2.5kg		0.68/ lb	\$3.75
	Celery	114 stalks		\$1.39/ 12 stalks	\$12.42
	Tomatoes	407 pcs = 50kg	Discovery Organics	\$22.50/ 25lb	\$90.00
	Cucumbers	173 pcs = 50kg	Discovery Organics	\$14.0/ 25 lb	\$56.00
	Green peppers	114 pcs = 15kg	Discovery Organics	\$37.50/ 25 lb	\$75.00
	Yellow peppers	114 pcs = 15kg	Sysco	\$26.22/ 25 lb	\$52.00
	Red peppers	59 pcs = 7kg	Sysco	\$26.22/ 25 lb	\$26.22
	Tom spinach	236 cups = 37kg	Sysco	\$19.28/ 5 lb	\$327.00
	Alfalfa Sprouts	14.75 L = 6 kg		\$8.5/ 1.38 kg	\$37.00
	Eggplant	59 pcs = 32kg	Discovery Organics	\$53.50/ 30 lb or \$22.50/ 12 lb	\$135.00
	Lettuce	415 heads	Discovery Organics	\$22.0/ 28 lb 24 ct	\$374.00
	Salad greens	380 cups = 14kg	UBC Farm	\$6.50/ lb	\$200.00
	Corn	59 frozen packages	Discovery Organics	\$32.50/ 40 lb 48 ct	\$32.50
	Butternut squash	59 pcs	UBC Farm	\$0.75 each	\$44.25
	Garlic	452 gloves = 1.36kg	Discovery Organics	\$5.35/ lb	\$16.00
	Carrots	200 pcs + 42.5 kg	UBC Farm	\$1.75/bunch	\$0.00
	Mushrooms	200 cups = 14kg	Sysco	\$19.22/ 10 lb	\$57.66
	Turnips	56.7kg	LMVD	\$10.50/ 25 lb	\$52.50
	Parsley	1.7kg	Sysco	\$15.33/ 4 lb	\$15.33
Dairy	Eggs	716 pcs		\$3.27/ 12 pcs	\$196.60
	Milk	9 L	Sysco	\$10.79/ 10 L	\$10.79
	Evaporated milk	33.4 L		\$0.973/ 385 ml	\$84.65
	Butter	262.9 sticks = 30kg	Sysco	\$100.62/ 25 lb	\$300.00
	Creamers	2400 pcs	Sysco	\$19.39/ 640 pcs	\$77.56
	Shredded cheese	14.75 L = 6 kg	Sysco	\$24.85/ 2 kg	\$74.55
	Feta cheese	4.72 L = 3 kg	Sysco	\$35.37/ 4 kg	\$35.37
	Parmesan cheese	15.45 L = 6 kg	Sysco	\$24.85/ 2 kg	\$74.55
	low fat yogurt	20.8 L = 20kg	Sysco	\$25.41/ 8 kg	\$76.23
Meat	Chicken breast	96 kg	Sysco	\$67.92/ 8 kg	\$815.04
	Deli meat - Ham	5.9 kg	Sysco	\$7.26/ 4.5 kg	\$7.26
	Salmon fillets	38.852 kg		\$0.973/ 100 g	\$378.00
	Canned anchovy fillets	100 cans		\$1.39/ can	\$139.00
Others	Olive oil	42.15 L	Sysco	\$20.25/ 1 gallon	\$222.75
	White flour	44.1 L = 20kg	Discovery Organics	\$13.75/10 kg or \$25.75/ 20 kg	\$25.75
	Self-rising flour	15 L = 6.4 kg		\$13.75/ 10 kg	\$13.75
	Baking powder	285 ml = 122 g		\$0.24/ 100 g	\$0.24
	Baking soda	285 ml = 122 g		\$0.14/ 100 g	\$0.14
	Salt	2.1 L = 900 g		\$0.18/ 100 g	\$1.62
	Garlic salt	250 ml = 107 g		\$0.18/ 100 g	\$0.18
	Black pepper	1 L = 427 g	Sysco	\$11.35/ 575 g	\$11.35
	Sugar	5.7 L = 4.5kg	Discovery Organics	\$4.83/ 2 kg or \$10.95/ 5 kg	\$10.95
	Sugar packets	3000 pcs	Sysco	\$15.22/ 2000 pcs	\$30.44
	Brown sugar	15 L = 9.6kg	Sysco	\$19.8/ 6 kg	\$39.60
	Chicken stock	88.5 L		\$0.62/ 397 ml	\$137.37
	Chicken bouillon cubes	236 cubes		\$1.88/ 16 cubes	\$28.25
	Worcestershire sauce	250 ml	Sysco	\$2.55/ 326 ml	\$2.55
	Mustard	3.54 L	Discovery Organics	\$30.48/ 3L	\$30.48
	Dry Mustard	660 ml = 282 g		\$3.47/ 200 g	\$3.47

	Mayonnaise	21.33 L		\$3.5/ 1.5 L	\$49.00
	Raspberry vinaigrette	7.125 L	Sysco	\$40.23/ 8 L	\$40.23
	Vanilla	150 ml		\$3.87/ 250 ml	\$3.87
	Quick Oats	15 L = 5kg	Discovery Organics	\$19.90/ 10 kg	\$19.90
	Crackers	1000 crackers	Sysco	\$15.37/ 1000 ct	\$15.37
	Pasta	25.9 kg	Discovery Organics	\$23.04/ 12 lbs	\$115.20
	Croutons	4.5 kg	Sysco	\$13.97/ 4.5 kg	\$13.97
	Paprika	142.5 ml = 60 g		\$1.87/ 150 g	\$1.87
	Oregano	1.71 L	Discovery Organics	\$15.25/ 1.5 lb 12 ct	\$45.75
	Pecans	3.75 L = 1.2kg		\$10.2/ kg	\$10.20
	Coconuts	3.75 L = 1.2kg	Discovery Organics	\$52.0/ 11.34 kg or \$9.92/ 2 kg	\$9.92
	Raisins	7.5 L = 4.5kg		\$2.62/ kg	\$11.79
	Rosemary	1.8 L = 770 g		\$3.50/ 40 g	\$66.50
	Walnuts	9.5 L = 4kg	Discovery Organics	\$160.0/ 11.34 kg or \$28.95/ 2 kg	\$57.90
	Fresh dill	330 ml		\$4.65/ 500 ml	\$4.65
	Capers	1.32 L			\$0.00
	Brown rice	18.75 L = 12kg	Discovery Organics	\$29.8/ 11.34 kg	\$29.80
	Dry Yeast	57 pkgs		0.55/ pkg	\$31.35
Breads	Bread	944 slices	Discovery Organics	\$22.0/ 120 slices	\$176.00
	Tortillas	59 pcs		\$4.02/ 30 pcs	\$8.04
Beverages	Orange juice	240 cans	Discovery Organics	\$ 46.15 (12/355ml)	\$923.00
	Apple juice	240 cans	Discovery Organics	\$ 46.15 (12/355ml)	\$923.00
	Bottled water	1600 bottles		\$3.50/ 12	\$467.00
	Coffee - Columbian	600 cups	Discovery Organics	\$27.0 (3/1L)	\$108.00
	Coffee - Swiss water decaf	600 cups	Discovery Organics	\$30.0 (3/1L)	\$120.00
	Tea - Earl Grey	240 bags	Discovery Organics	\$15.6 / 120 bags	\$31.20
	Tea - English Breakfast	240 bags	Discovery Organics	\$15.6 / 120 bags	\$31.20
Total					\$8,343.31

Note:

* Blank entries in the distributor column could not be located from any of the three local distributors and its price was calculated from a miscellaneous food supplier by subtracting 30% off of its retail price

** Lower Mainland Vegetable Distributors

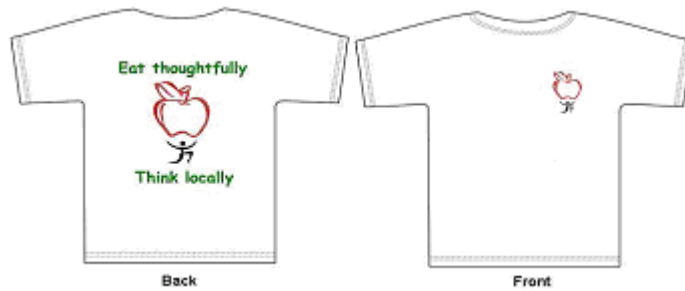
Scenario 3 (Group 1): Education, Awareness and Re-localization

Proposed Marketing and Educational Pieces to Promote Local Foods:

The Logo:



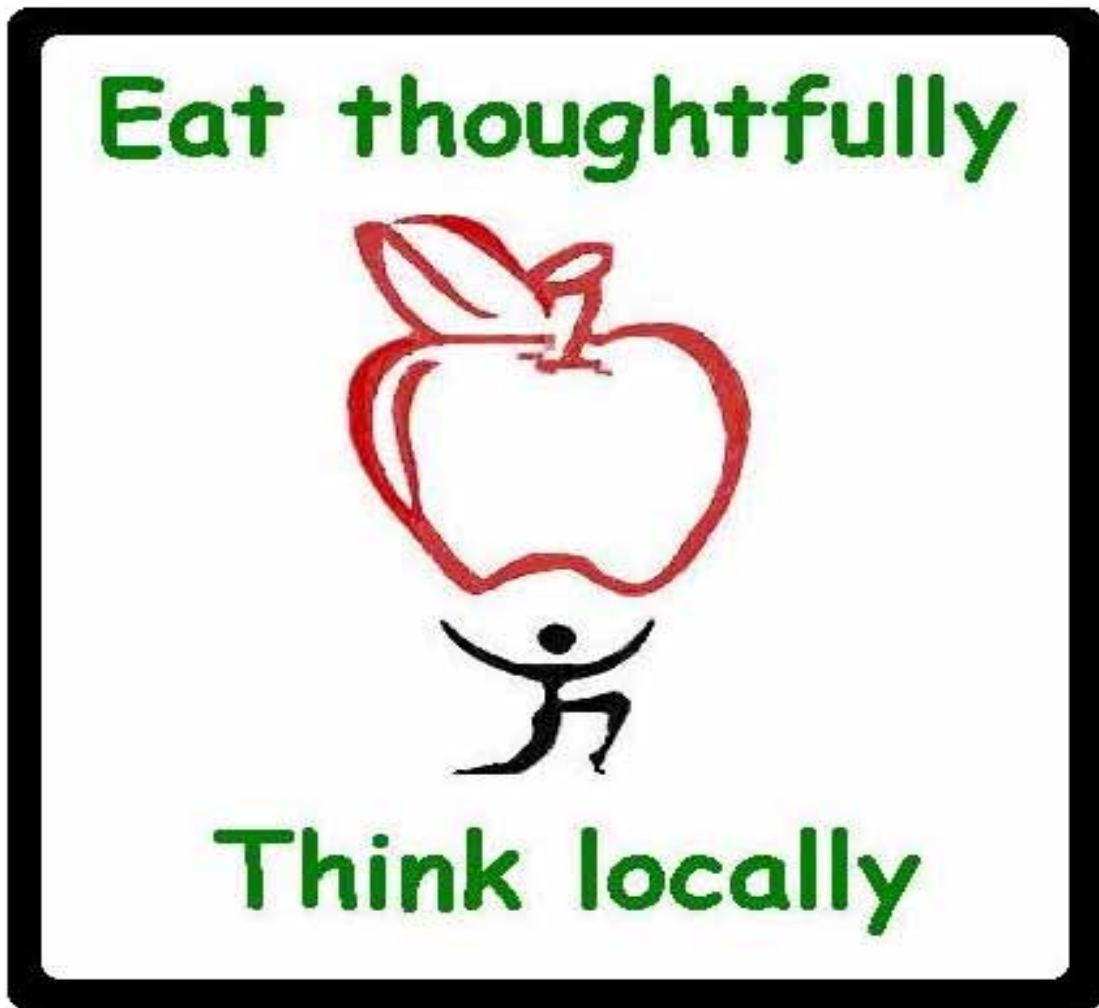
The T-shirt:



The Sticker:



The Poster:



*LOOK FOR THIS LOGO AT UBC FOOD OUTLETS
TO SUPPORT THE UBC FOOD SYSTEMS
PROJECT!*

MAKE YOUR COMMUNITY SUSTAINABLE.

For further information check out:

www.UBCFSP.ubc.ca

List of UBC Campus Food Outlets:

AMS Food and Beverage Operators

AMS Catering
Bernoulli's Bagels
AMS Outdoor BBQ
Blue Chip Cookies
The Pit Burger Bar
The Gallery Lounge
The Honor Roll
The Moon
The Pendulum
Pie R Squared
The Pit Pub
Snack Attack

UBC Food Services Operators

Sage Bistro
UBC Catering
Residence Dining
99 Chairs
Pacific Spirit Place
Bread Garden
The Barn
Etc.

Website Outline:

Site address: <http://www.ubcfsp.ubc.ca>

Site design:

- What is UBC Food System Project?
- Goals and objectives
- UBC Food System Plan
- Define “local” foods and “re-localization”
- Benefits for supporting locally grown/produced food
- List of local seasonal foods
- Food outlets that is currently supporting re-localization
- How can you support UBCFSP? (Buy foods with logo stickers or foods that are locally grown)
- Display logo and slogan
- Questions and comments from consumers
- List of Stakeholders

Proposed Budget:

Budget:		\$5,000	
Product	Size	Quantity	Cost
Poster	11 x 17, 4 colors	5000	\$1,223
Stickers		10000	\$321.30
Magnets		5000	\$700
Agenda	Header space		TBA
T-shirt (workers)	S/M/L	250	\$1,285
Radio (CITR)			\$0
Website			\$0
		Total	\$3,529.30

Promotion Material Contacts:

Posters: I.P. Impressions InPrint Ltd.
www.impressionsinprint.ca
Tel: 604-872-47117

T-Shirts: Big Kahuna Sport Company- Dean Longstaff
www.bigkahuna.ca
Tel: 778-773-6158

Magnets: Concept House
Tel: 604-271-7644 Dean Longstaff
www.bigkahuna.ca

Stickers: Club Card
www.clubcard.ca
Tel: 604-801-636

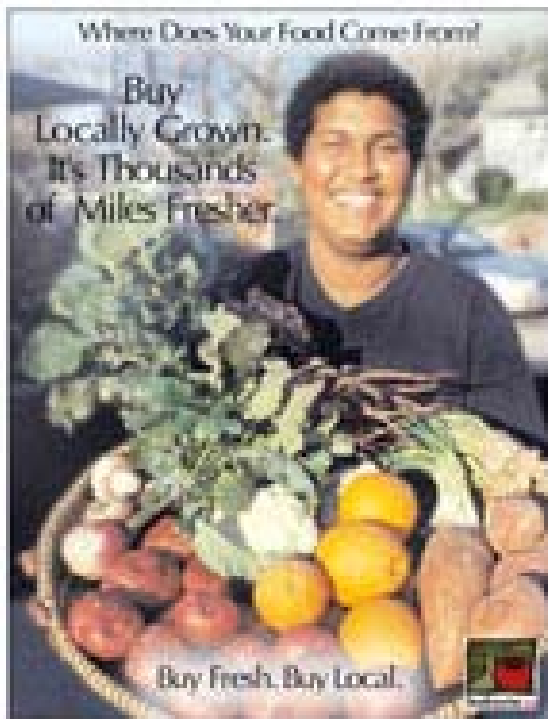
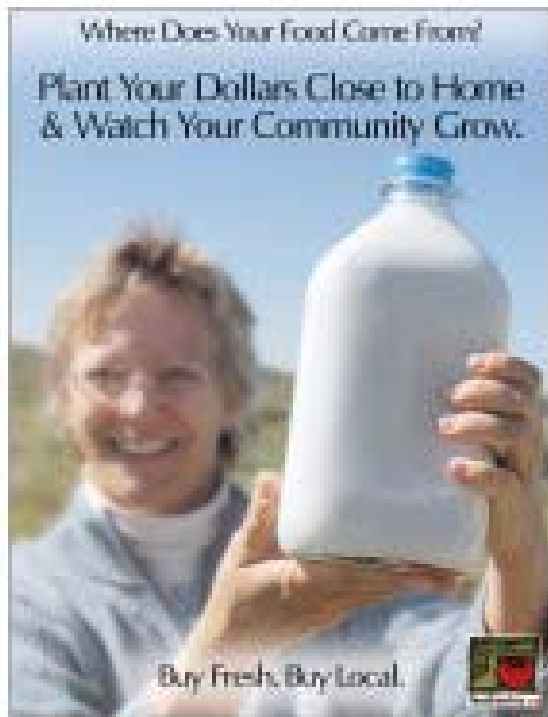
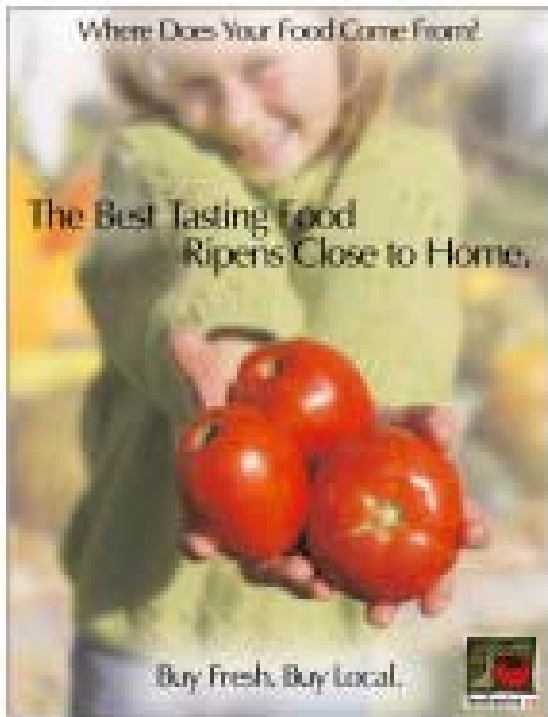
Scenario 3 (Group 7): Education, Awareness and Re-localization

Proposed Marketing and Educational Pieces to Promote Local Foods”

“UBC Grown” Logo:



Posters:



Pamphlet (double sided):

Taking Action

- ✓ Vote with your food dollars – Buy local food!
- ✓ Eat seasonal foods
- ✓ Shop at Sprouts in the Student Union Building (SUB)
- ✓ Look for the UBC Grown logo on campus
- ✓ Get involved! Visit the UBC farm
- ✓ Support restaurants that provide local food (see Restaurant Listings)
- ✓ Encourage your friends and family to buy local food whenever possible

Upcoming Events **FOOD WEEK**

Free local food and music!!
Date: Sept 22nd -24th, 2006
Location: SUB Concourse

Resources

- FoodRoutes
www.foodroutes.org
- Buy BC
www.bcac.ubc.ca/buybc
- UBC Food Services
www.foodserv.ubc.ca
- The UBC Campus Sustainability Office
www.sustain.ubc.ca/seeds.html
- UBC Farm
www.agsci.ubc.ca/ubcfarm
- Sprouts at the SUB
www.ams.ubc.ca/cubstn/c
- FarmFolk/CityFolk Society
www.fff.bc.ca
- BC Association of Farmers' Markets
www.bcfarmersmarket.org

Restaurant Listings

- Sage Bistro
www.sage.ubc.ca
 - Bishop's
www.bishopsonline.com
 - Pair Bistro
www.pairbistro.ca
-



BUY FRESH BUY LOCAL

UBC Food System Project



Why Local Food ?

Nutritional Benefits

- Fresher produce, picked when it's just ripe
- Minimal vitamin & mineral loss
- Healthier food with less pesticides

Economic Benefits

- Strengthens your local economy
- Buying local food keeps your dollars circulating in your community
- Supports your farming neighbours

Ecological Benefits

- Less pesticides and preservatives
- Less fossil fuels burned for transportation
- Decreases carbon emissions and air pollution



How to Buy Local?

- ◆ Community Supported Agriculture
- ◆ BC Association of Farmers' Markets
- ◆ Sprouts at the SUB
- ◆ UBC Farm



Look for the Buy BC Logo!

About Buy BC

- Launched in 1993
- Increase consumer awareness of BC products
- >1200 companies using the Buy BC logo; >5000 Buy BC products

Qualifying Products

- BC Grown = 100% from BC
- BC Product = grown and processed in BC
- BC Made = NOT grown but processed in BC

UBC Grown Logo!

- Food or agricultural products which are 100% grown at UBC Farm



Campaign Budget:

Poster Printing Fee	\$0.20 / page [§]
Pamphlet Printing Fee	\$ 1200 / 3000 color pamphlets [§]
UBC Grown Logo – Sticker Printing Fee	\$160 / 2000 logo stickers [†]
Advertisement for the Banner Boxes	\$200*
Use of AMS concourse	To be checked
PA Equipment Rental for Food Week	To be checked
Stage Rental for Food Week	To be checked
Cash Prize for Best Chefs and Bands	\$1000*; (\$500 each)
Food by donation	\$0.00

[§] Kinko's http://www.kinkos.ca/servicecenter/personal_solutions.html

[†]Quickie Copy Center (604) 648-0005

* AMS

Contact Info for Events:

- More information about the IMAGINE UBC program and plans to implement the pamphlet as part of the Frosh Kits can be obtained from Chad Trytten Coordinator, Imagine UBC imagine3@interchange.ubc.ca
 - More information about using this type of advertising medium can be obtained from Linda Ong, Marketing and Promotions Manager, AMS 604.662.6332; linda_ong@cbc.ca
 - John Bishop: He can be contacted at inquire@bishopsonline.com. To jog his memory regarding this project, remind him that Monique Gobes (604-724-7582) spoke to him by telephone in March 2005.
-

Scenario 3 (Group 9): Education, Awareness and Re-localization

Proposed Marketing and Educational Pieces to Promote Local Foods:

Logo:



Apron Design:



Pamphlet (double-sided):

**Be a Local Star!
Buy and Cook Local**



Find out more about:

A variety of BC grown produce

What is in season

Recipe ideas

UBC Local Food Cookoff



UBC Local Food Cookoff



UBC Food Services and Agricultural Sciences students will be organizing a local food cookoff at the five main UBC cooking facilities. Kitchen teams from Totem Park, Place Vanier, Pacific Spirit Place, 99 Chairs, and Sage Bisro will use their culinary skills to plan, prepare, and serve a menu in their respective outlets showcasing local food ingredients. The special menus will be available for one week. A panel of judges will evaluate the dishes based on taste, nutritional value, presentation, and creativity. Customers are also invited to cast their votes. Attractive prizes will be awarded to the winning teams.

For more information on the contest rules and regulations, please contact Andrew Parr at 604 8220000 or visit the website of re localizing UBC food system at www.ubcfsgolocal.com



Eat Thoughtfully, Buy Locally!

Benefits of supporting Local Foods

- Build towards a social, ecological and economic sustainable local food system
- Increase local economy by supporting local farmers and providing more job opportunities
- Support traditional farming practices that are more sustainable and use less pesticides
- Help lessen environmental pollution due to decreased food mileage and fossil fuel
- Decrease carbon emission and air pollution
- Know where your food comes from and its growing methods
- Obtain fresher food due to less traveling time





Choose a variety of Foods from BC...

Fruits:

Apples, apricots, berries, cherries, cranberries, grapes, kiwifruit, nectarines, peaches, pears, plums, prunes, rhubarb, and watermelons



Vegetables:

Asparagus, beans, beets, leeks, lentils, Brussels sprouts, cabbage, cauliflower, celery, Chinese vegetables, fennel, green beans, artichokes, carrots, eggplant, fennel, green onions, leeks, mushrooms, onions, parsley, peas, peppers, potatoes, mushrooms, spinach, sprouts, squash, tomatoes, winter squash, zucchini, and zucchinis



Grain products:

Bread including: focaccia, pizza, tortilla, wheat, whole wheat
Breads including: bagels, rolls, rye, wheat, rye, rolls
Pasta including: lasagna, macaroni, risotto, spaghetti
Other grain products: barley, cornmeal, muffins, oatmeal, scones



Milk:

Skim, low-fat, whole milk, lactose-reduced milk, cream, milk powder

Cheese:

Cheddar, Colby, Edam, Gouda, farmer's, goat, milk, cheese, mozzarella, provolone, ricotta, Swiss, blue cheese, unpasteurized cheese, aged cheese, feta, goat, cream



Meat and Alternatives:

Legumes including: lentils, chickpeas
Fish including: cod, halibut, ling cod, perch, rockfish, salmon, snapper, sole, trout
Meats including: chicken, steaks, oysters, pork chops, shrimp
Poultry including: chicken, duck, goose, turkey
Meat including: beef, lamb, pork, rabbit, veal
Farmed game including: bison, venison, wild boar
Tiger
Eggs including: hard-boiled, poached

References: BC Foods-A Matter of Choice

What is in season?



Winter

Apples, beets, cabbage, carrots, cauliflower, garlic, honey, kielbasa, onions, potatoes, squash, tomatoes

Spring

Asparagus, beans, leeks, botanical, carrots, cauliflower, cucumbers, asparagus, fennel, garlic, shallots, lettuce, potatoes, rhubarb, spinach, squash, strawberries, zucchini

Summer

Apples, beans, beets, broccoli, cabbage, carrots, cauliflower, corn, strawberries, cucumbers, zucchini, peas, green beans, lettuce, herbs, leeks, lentils, mushrooms, onions, peaches, potatoes, raspberries, rhubarb, squash, strawberries, tomatoes

Fall

Apples, beets, broccoli, cabbage, carrots, cauliflower, corn, eggplants, cucumbers, fennel, peas, garlic, parsnips, honey, sweet corn, leeks, onions, peaches, pumpkin, quinoa, squash, strawberries, tomatoes

References: Southern Vancouver Island Direct Farm Marketing Association, Fresh 2014

Recipe Ideas



Recipe idea for the Winter blues

Beet and Beet Salad

- 2 beets, peeled and cut into matchsticks
- 1/2 cup of dried cherries, chopped
- 4 BC beets, peeled, sliced and sliced
- 12 radishes, very thinly sliced
- 3 tablespoons olive oil
- 3 tablespoons red wine vinegar
- 3 tablespoons of lime juice
- 1 1/2 teaspoons sugar
- 2 1/2 teaspoons pepper, fresh chives
- 1/2 teaspoon salt
- 1/2 teaspoon of crushed red pepper flakes (optional)

In a medium bowl, combine the beets, dried cherries, peas, radishes, salt, vinegar, lime juice, sugar, chives, salt, and red-pepper flakes, if using; toss to coat well.

Makes 6 servings
Per serving: 228 calories, 3 g protein, 20 g carbohydrates, 7 g fat, 9 g fiber, and 938 mg sodium

For more information on selecting and cooking seasonal local food, visit

<http://bcfoods.ca/wfs/seasonallocal>

<http://bcfoods.ca/seasonal>

<http://bcfoods.ca/seasonal>



Poster:

UBC Food Services
In collaboration with
Agricultural Sciences 450
Present:

UBC Local Food Cook-off!



Five amazing food outlets on **UBC campus** will battle to see who can come up with the tastiest menu creation using only the best **BC Local Food!**

March 20th – March 26th

Visit: Place Vanier, Totem, 99 Chairs, Sage Bistro and Pacific Spirit

We have not inherited the world from our forefathers -- we have borrowed it from our children."
- Kashmiri proverb

Budget Sheet for "Local Food Cook-off":

**UBC Food Service
Budget Enterprise for "Local
Food Cook Off"
10-Sep-05**

Revenues:

Apron Sales \$ 1,000.00

Total Revenues \$ 1,000.00

Operational Expenses:

Prizes - Cash \$ 600.00
 Cost of aprons \$ 286.80
 Pamphlets \$ 275.00
 Cost of buttons \$ 156.40
 Posters \$ 137.50
 Champion Trophy \$ 50.00
 Cost of printing "50% off Local Meal" \$ 20.00
 Coupons
 Overheads \$ 5.00

Total Expenses \$ 1,530.70

Net Cost (530.70)

"Local Food Cook-off": Unit Price and Assumptions for Each Revenue and Expense

Revenue and Expense Items:	Supplier:	Unit Price:	Assumptions:
Sales of Aprons		\$ 10.00	100 aprons would be sold to the public for promoting purpose
Sponsor from local food companies		\$ -	cannot be assumed since further contact and discussion with different local food companies are needed
Large Posters	Staples Business Depot ¹	\$ 1.50	each outlet would have 2 large posters supplied; 15 other posters would be distributed to the 15 most dense buildings (2*5+15=25)
Small posters	Staples Business Depot ¹	\$ 1.00	each outlet would have 8 small posters supplied; 60 other posters would be distributed around campus (2*8+60=100)
Buttons	Listowel Trophies ²	\$ 0.23	each of the 480 UBCFS worker would get a button which is the logo of the event + 200 extra ones would be given to

				public (480+200=680)
Overheads	Staples Business Depot ¹	\$	1.00	5 overheads are printed for the AGSC students to help promoting the event in different classes
Pamphlets	Staples Business Depot ¹	\$	0.50	each worker would get a pamphlet which educates them on importance's of local food system; another 150 copies would be made available at the booth
Champion trophy	Winning Trophies and Engraving Inc. ³	\$	50.00	trophy would be awarded to the winning team
Costs of Aprons	Brymark Promotions Inc. ⁴	\$	2.39	each of the 20 competing participants would get an apron + 100 aprons would be made to be sold to the public (20+100=120)
Cash prizes	UBC Food Service	\$	600.00	would be funded by UBCFS itself; 1st place \$400; 2nd place \$200
Printing cost of "50% off local meal" coupons for food workers	Staples Business Depot ¹	\$	0.05	each worker would get 5 coupons which each coupon allow them to try out one meal for 50% off from each competing outlet; \$0.05 is the printing cost of each set of the 5 coupons

General Assumptions:

1. There are total of 5 different outlets competing which include: 2 residences, sage, 99 chairs, pacific spirit place
2. There are total of 480 UBC Food Services workers and student workers
3. Food used for cooking the local food meal would be sourced by UBCFS as regular menu item expense.
4. Revenue from the local food meals are counted as regular revenue for each food outlet
5. Each competing team would consist 4 members

Footnotes:

¹ Staples Business Depot. 2005. Copy and Print Centre Price List. 19 March 2005.

http://www.staplescopyandprint.ca/images/price_list.pdf

² Listowel Trophies. 2005. Custom Buttons. 18 March 2005.

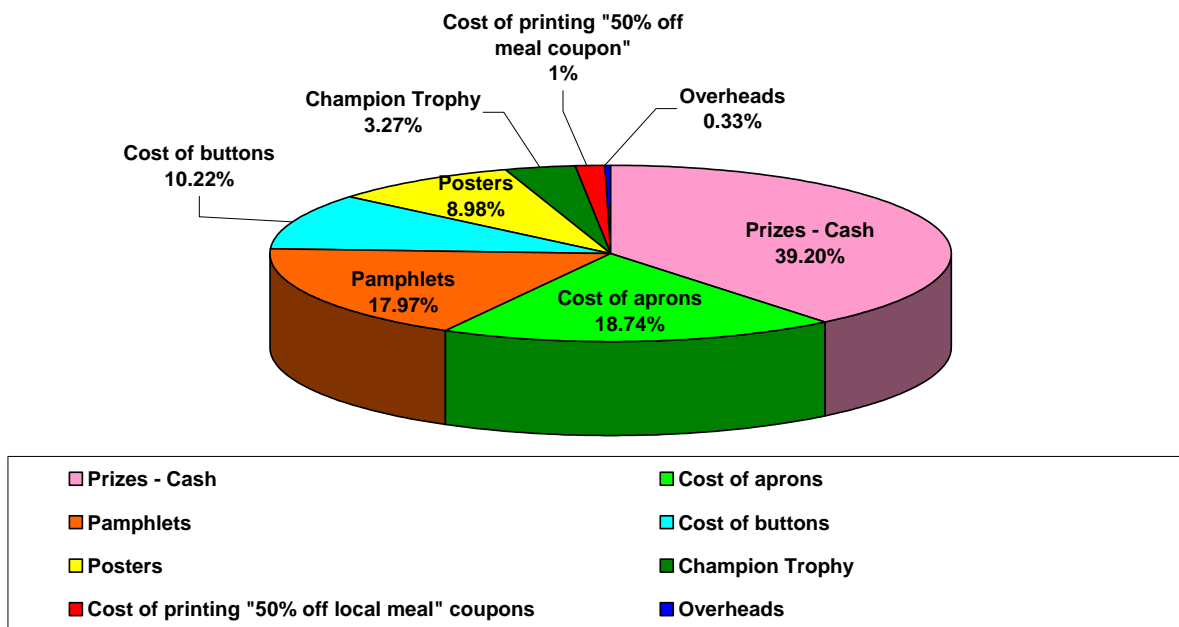
http://www.listoweltrophies.com/catalog.php?f_action=prod_detail&f_product_id=155

³ Winning Trophies and Engraving Inc. 2002. European All Metal Cups. 18 March 2005. <http://www.winningtrophies.com/images2/school/cups3.jpg>

⁴ Brymark Promotions Inc. 2004. Bottle Apron. 17 March 2005. <http://brymark.promocan.com/LineNames.htm?CD=2380&ID=19114>

“Local Food Cook-off”: Breakdown of Expenses:

Breakdown of Expenses



Contact List for Campaign:

Last	First	Role	Contact	Alternate Contact
Parr	Andrew	Director - UBCFS Program	parr@foodserv.ubc.ca	604 822 6274
Bomford	Mark	Coordinator, UBC Farm Course	bomford@gmail.com	
Rojas	Alejandro	Instructor, AGSC 450 Food Critic for Vancouver Sun	arojas@interchange.ubc.ca	604 822 0494
Stainsby	Mia	Newspaper UBCFS Personal Wellness Program	604 605 2104	
Ehlert	Jackie	Dietician	604 669 8516	http://www.wanttoknownow.com/contact.htm
Vercammen	Jim	Food Economics Professor	604 822 5667	james.vercammen@ubc.ca
Campbell	Juliana	UBCFS Food systems printing	campbell@foodserv.ubc.ca	

Company Name	Supplies	Contact
Listowel	Buttons	http://listoweltrophies.com/catalog.php?f_action=prod_detail&f_product_id=155
Brymark Brand & Deliver	Aprons	http://brymark.promocan.com/LineNames.htm?CD=2380&ID=19114
Winning Trophies & Engraving Inc.	Trophy	http://www.winningtrophies.com/sport.html

Note: Inclusion on this list does not indicate that the person has been made aware of this project at this point.

Scenario 3 (Group 13): Education, Awareness and Re-localization

Proposed Marketing and Educational Pieces to Promote Local Foods

Logo and slogan:



Pamphlet (double-sided):

Local Food Facts

- The further food travels, the more packaging is required which impacts the environment through increased waste disposal as well as increased air pollution from transport vehicles.
- Three decades after its inception our Agricultural Land Reserve faces pressures that threaten our precious food growing lands and compromise one of North America's most effective tools for protecting green space and limiting urban sprawl. By supporting local products you preserve the agricultural land reserve and green space in BC. Want to learn more visit www.greenbelt.bc.ca
- By purchasing local foods you can:
 - Support local growers, businesses and regional economies while positively fostering a sense of community.
 - Increase long term food security in British Columbia.
 - Enjoy fresh, more nutritious and attractive products.
 - Reduce costly environmental impacts associated with transport.
 - Preserve local farmlands & land scapes

Resources

Faculty of Land & Food Systems, (Formerly Agricultural Sciences)
 The UBC Food Systems Project (UBCFSP) is an ongoing and interdisciplinary University Based Action Research Project between the Faculty of Land & Food Systems and Social Ecological Economic Encouragement Initiatives (SEEEI) program of the UBC Campus Sustainability Office (CSO). For more info visit www.ubc.ca/ubcfsp

Sprouts
 The UBC Food Co-op is a not-for-profit, student-run co-operative office mission to to address affordable organic and fair trade products to the UBC community, educate and contribute to organic sustainability by supporting local producers and obtaining produce from the UBC Farm, and to inspire students to take an active role in their community's food systems. Sprouts is located downstairs in the 508 building. Web: www.ubc.ca/sprouts

The Campus Sustainability Office
 This is Canada's only sustainability organization at a post-secondary institution. After setting the benchmark in sustainability in 1997, UBC is now an internationally recognized leader in low carbon sustainability measures. Check out the campaigns, organizations and initiatives for the many and varied ways in which sustainability is embedded here on campus by students, staff and faculty. For more info contact sustainability@ubc.ca or visit www.ubc.ca/cso

UBC Farm
 The UBC Farm programs of 40 varieties of sustainable organic food and forest trees, and is the last working farm in Vancouver. UBC Farm is a student-driven initiative along with Sprouts, food, and the local community have been working together to create a place where people can enjoy local, fair and have the convenience of fresh, food and sustainability. For more info contact ubcfarm@ubc.ca or visit www.ubc.ca/ubcfarm

UBC SEEDS
 SEEDS helps students engage and improve themselves by projects on campus. Students are currently running the Student Food Network, a campus composting program, local open fields, reducing greenhouse gas emissions and many more. For more info contact seeds@ubc.ca or visit www.ubc.ca/ubcseeds

This publication was made possible through the financial contribution of SEEDS, the Campus Sustainability Office, Faculty of Land & Food Systems (UBCFSP), UBC Farm, and UBC's Food and Beverage Strategic Plan.

Produced organically through the UBC Food System Project (UBCFSP) of the Faculty of Land and Food Systems (group 13, 2005) to increase awareness of consuming locally & sustainability.

Sponsored by the AMS Food and Beverage Department.



What is Sustainability?

The wide use of the concept "sustainability" reflects a broad agreement that people living today have an obligation to protect the health, diversity and productivity of the environment for the benefit of current and future generations. A healthy environment is a necessary element of a productive economy, and hence human well-being.

Looking for more insights into the issues and concerns surrounding sustainability? Visit sustain@ubc.ca.

What is Local Food?

The concept of buying local is simply to buy food grown or produced as close to your home as possible. Since sustainability is inclusive of social, environmental and economic factors, local food is only desirable when it supports the local economy, does not harm the natural environment or livelihoods in any way.

Read on to learn how you can increase sustainability through purchasing local foods...

What Can I do?

- Be a conscious consumer!
- Ask where your food is coming from at restaurants, grocery stores, & AMS Food outlets and encourage them to supply local food.
- Visit local farmers markets. (UBC Farmers Market) is every Saturday, May-Sept on South Campus Road!
- Buy produce in season. Visit www.bcfarmfresh.com for seasonality in the Fraser Valley.
- Join "Farm Folk/City Folk", a food co-op, or a community support agricultural project in your area.

The following list of sustainability initiatives is offered within the AMS Food and Beverage Operations.

- "No-waste"**
Buy 12 coffee to go cups and water jugs and coffee bar. Cut an old 5-litre back stock. Use City Coding for Production, Reuse, and Recycle tags.
- "No-discard"**
Use any leftover coffee, milk, or tea directly in back stock. Use Production and Recycle tags. Use compost or City Recycle back stock and do proper food waste disposal when you bring your own bag.
- "Save The 100"** or do more with appropriate, when you bring your own bag.
- "No-kill Glass Jar"**
Use your discarded and do 10 jars as a City Coding for Production and Recycle tags for a total usage of 10 when you bring your own bag.
- "The Daily Coffee"**
Support local sustainability when you choose to make coffee. Buy green, fair trade, certified organic coffee, preferably from within a 100 km range for delivery. All AMS Food & Beverage operations, including catering, are part of this "Daily Coffee" initiative.
- "Happy Hour"**
AMS coffee bar is also providing you with a back stock, like City and the Production & Reuse and Recycle tags, before you leave, it is possible to bring your own bag.
- "Don't"**
Don't throw away your own food containers. Use Production, do proper food waste disposal tags and the event.
- "Reusable container"**
Re-use reusable containers (RUC) will reduce waste and save (RUC) a lot. Bags are available in the City Coding, for Production and Recycle tags. Containers may be purchased from the AMS Food & Beverage Operations.
- "Composting"**
All AMS food outlets are certified to a compostable recycling initiative, including all your own and your own container recycling of organic food material using Reusable food containers.
- "Recycling"**
All methods, paper, glass, metal and plastic used in the operations are recycled.
- "No-bleed Oil Recycling"**
The AMS is working in cooperation with the Fraser Valley and British "No-bleed" program, where used oil from our shop floor is collected for re-use in the Fraser Valley and other related shops.
- "Food Chain and Coding"**
AMS Coding and the Production, Reuse, and Recycle tags, are used to ensure correct disposal of your own food containers.
- "Support Your Local Grocer"**
AMS Food Services has a sustainable produce and protein and food items wherever possible, including support for the UBC food bank to provide meals.

Indicators and Criteria for Assessing Food Locality

Food System Sustainability Model



Food System Sustainability Model: Indicators & Criteria from a point of assessment in paper 422 & Group 11 (2008). Visit AMS2010.FarmersMarket.com for more info. Author: J. Tompkins & S. Gaudin. AMS Food Service - AMS Food System Impact Submission Report (2008).

Food Mileage

The distance food travels from the farm to your plate. The concept is used to estimate how far many foods are transported through global trade and the costs of this transport, in economic, social, and environmental terms.

% of Locality

Some foods may be transformed locally though the ingredients may not be grown locally. For example, you may buy a sandwich, in which the bread is from Washington, the lettuce and tomatoes from California, meat from Alberta and cheese from Quebec. Ask questions about the manufacturing, processing and origin of your food.

Production Methods

Production methods also impact the sustainability of local food. Many types of food production have varying different repercussions. It is preferable to purchase products that are grown using low-impact systems and do little harm to the natural environment. Examples are local foods (reduced food miles) and organics.

Contributors of Indicators and Criteria to AMS2010 Group 11 (2008) (2008)

“Food for Thought” cards:



Diagram 1. Food For Thought map

Green (Fraser Valley and Vancouver Island) : Local
Yellow (Okanagan and southern BC) : semi-local
Red (Washington, Alaska, Yukon, northern BC) : Least-local
Gray (The rest of Canada, US, and other parts of the world) : Not-local

Scenario #5 (Group 10): UBC Farm: Exploring Alternative Routes to Enhance Viability –

Brochure (double-sided):

What is Community Supported Agriculture?

Community supported agriculture (CSA) is a method of farming which benefits both the consumer and farmer. Subscribers purchase food shares from the weekly farm harvest on a seasonal basis. The consumer benefits by receiving a diverse weekly supply of authentic local produce at a reasonable price. Committing to the farm early in the year helps the farmer by having all or a portion of operating funds, up front. This allows for planning, ordering seeds and supplies, planting and production to proceed based on the knowledge that the market for the farm produce has been secured.

Benefits of a CSA:

- Support of a healthy local economy
- Provide local families with a feeling of control over the products their family members eat.
- Building blocks for strong communities through farm and family partnership.
- Connection with the urban community environment.
- Provide local families with fresh, affordable food.
- Hands-on learning through "working" shares.



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Farm Centre Fax: 604-822-6839
Farm Centre email:
farmteam@interchange.ubc.ca

 **ubcfarm**
OF BRITISH COLUMBIA

 **Faculty of Agricultural Sciences**
THE UNIVERSITY OF BRITISH COLUMBIA



Community Supported Agriculture

Uniting producers and consumers by providing practical education and creating a design model for the food system. THIS NEEDS HELPERS

UBC Farm

UBC Farm's Mission:

To provide academic and practical leadership in the areas of agro-ecological design, community planning and development in a manner that benefits past, present and future community members, be they citizens, planners, designers, developers, managers, leaders, foresters or farmers.



Current Programs:

- Market Garden — a large selection of fruits and vegetables grown on site, open Saturdays, 9am-1pm
- Maya Demonstration Garden Project — education and outreach for the Mayan community and UBC
- Land, Food, and Community Garden — the hub of educational activity!
- UBC Farm Schools Program — an area for field trips offered for local elementary school students



For more information, visit:
www.agsci.ubc.ca/ubcfarm

Why Local?

Local agriculture assures a food system that is safe, affordable, and accessible to all by providing a wide variety of fresh, high quality food and agricultural products sold at their peak of flavor and nutritional value, with a minimum of handling and processing. Locally grown foods require less energy input, resulting in reduced environmental impacts and transportation costs. And buying locally grown foods supports local jobs and your local economy.

Why Organic?

Organic agriculture aims to be environmentally sustainable by avoiding use of substances such as chemical fertilizers and pesticides, which can cause irreversible damage to surrounding ecosystems. It also builds healthy soil through crop rotation and nutrient cycling. Organic agriculture increases the safety of farm workers by avoiding the enormous health risks caused by working with agricultural chemicals. Lastly, organic foods are chemical free, which is good news for your body. And they taste delicious!



CSA Pilot Project 2005

The UBC Farm is doing a CSA pilot project this season, in the hopes of implementing a CSA program in the future.

The pilot project will run similar to a food-box program, for the duration of the farm's season. Each box will contain a variety of the fruits and vegetables that are sold at Saturday markets, enough for approx. 2-3 people for a week. A share in this project will cost ~\$550 (\$25 per box for a 22 week season). During the pilot project, we will not be delivering. The boxes will be available for pick up from a decided upon location on campus.

One main purpose of this pilot project is to collect informative data for use in the creation of a future CSA program. If you would like to participate, or provide some input, please contact the UBC farm's amazing staff at: farmteam@interchange.ubc.ca.



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Appendix F: *Campus Community Planning Documents: Tools and Amendments Materials*

Scenario #4 (Group 3): Exploring Existing Opportunities that Enhance and/or Barriers that Impinge on the Sustainability of the UBC Food System within Current Campus Community Plans

A How-To Guide:

Incorporating Urban Agriculture into the UBC MCP:

This guide works within the context of the previous report: the history of UBC and its planning history; the current planning process in regards to food system sustainability on the UBC Main Campus (or lack of one!); the summary of the current MCP; the importance/relevance of urban agriculture in general and specifically for UBC; and the successful incorporation of urban agriculture into the SEFC planning documents. The purpose of this guide is to enable future students, faculty, researchers, developers and/or residents to affect changes in the UBC MCP. Our hypothetical situation assumes that the MCP plan is up for revision and that team Alfalfa (comprised of any combination of the UBC community members) has researched the applicability and feasibility of introducing **rooftop gardens** to the UBC campus. Team Alfalfa has compiled a detailed report on rooftop gardens outlining a proposed addition to the UBC Main Campus.

This How-To Guide consists three documents: a letter that highlights the major points of the previous paper and will help team Alfalfa convince the UBC MCP revisal committee of the necessity of urban agriculture and rooftop gardening; a “Plan of Action” that is loosely based upon the experiences of group 3 and the planning committee that created the SEFC Urban Agriculture Strategy; and finally, a list of contacts that will help the team network and form relationships.

Letter to Main Campus Planning Revision Committee:

October 12, 2005

Main Campus Planning Revision Committee

To Whom It May Concern:

We eagerly anticipate the UBC Main Campus Plan revision. This letter aims at offering suggestions and recommendations of implementing urban agriculture into the Main Campus Plan at the University of British Columbia. UBC's history highlights the profound role that agriculture has played in the planning and development of the campus. At one point in time, research and development were based solidly in the agricultural needs and demands of UBC and the surrounding community; and, the UBC farm was at the heart of on campus activity. Over time the goals of UBC diverged from their original agricultural foundation and agricultural pursuits slowly lost value. We believe that urban agriculture is an important element that needs to again be included in the Main Campus Plan.

Urban agriculture involves the production, processing and marketing of food and fuel, largely in response to the daily demand of consumers within a town, city or metropolis. Urban agriculture can provide food for communities and help to reconnect them with their environments, helping to fight poverty and hunger. In order to fulfill UBC's vision of becoming a sustainable 'university city', urban agriculture must be incorporated into future Main Campus Planning. It could provide local, accessible, nutritious food for the university community; it could provide a means of integrating the goal of research and development into campus life; and it would also enhance UBC's economic, social and environmental sustainability.

Urban agriculture has been successfully incorporated in a number of development plans. The Southeast False Creek Plan (SFCP) is a community plan designed to create a sustainable community through implementing urban agriculture in a densely populated, economically valuable neighborhood. The successful incorporation of urban agriculture into the SFCP demonstrates the plausibility of integrating urban agriculture into the Main Campus Plan.

Based on our analysis of UBC's Main Campus Plan and various local and global examples of urban agriculture, we have identified **rooftop gardens** as a practical future initiative for UBC. As a form of Urban Agriculture rooftop gardens: complement planning objectives that work towards food sustainability; work within existing structures at UBC; incorporate the ideals of community involvement and heightened awareness; and will help to demonstrate that the long term growth, development, and management of the UBC main campus is based upon principles that value UBC as a community, with changing community needs that include a local, sustainable food system. Only with a sustainable food system can UBC become a true leader and model in sustainability for the rest of the world.

Sincerely,

Group # 3
Spring 2005 AGSC 450

How to Guide

PLAN OF ACTION: Implementing Urban Agriculture into UBC

When students want to implement urban agriculture at UBC there are a few important things to take into consideration. UBC has a planning and development history and process that extend beyond the scope and ability of a single person. Students wishing to change a specific component of the UBC food system must read the detailed analysis of the MCP outlined in the previous paper and work within the 6 emergent themes outlined in that document. Implementing urban agriculture at UBC will also involve cooperation with UBC and its stakeholders; dedication to the objectives and guidelines of the planning committee; a sustained focus on the MCP in planning, design and programming of development; and finally referencing the fundamental goals and recommendations developed by students in previous years. The following is list of steps next year's AGSC 450 students could pursue in fulfilling their dream of a sustainable urban agriculture system at UBC.

- 1) Create a policy statement regarding which urban agriculture options UBC will employ so that stakeholders are in line with UBC's level of commitment to sustainable food activity.
- 2) a. It would be necessary to review current regulations and bylaws that are currently in place that would possibly restrict urban agriculture procedures.
 b. Create proper regulations and by-laws that would allow the urban agriculture strategies that UBC is researching to be implemented.
- 3) Ensure urban agriculture is included into the site planning and design process. In other words, make sure that urban agriculture is incorporated into the revision of the UBC Main Campus Plan.
- 4) Try to use public buildings and land for demonstration projects. For example, develop a rooftop gardens in which people can visit to learn more, stress the importance of sustainability, and spark interest about future projects.
- 5) Draft incentives for UBC population to include urban agriculture into their designs.
- 6) Partner with NGO's, faculties, and businesses to develop training modules to staff, designers and urban gardeners.
- 7) In order for the implementation to work one must start with the easier options, and build success and support before moving on to more difficult options. For example, beginning with food composting as a simpler process and then move onto food incubators and rooftop gardens.
- 8) Develop a population at UBC where people value and understand where their food originates. One would want to create a situation where UBC values local food, agriculture, organic production, biodiversity and a sustainable food system. In order for urban agriculture to be implemented properly, there needs to exist a desire for it to function.
- 9) Increase awareness of the UBC food system.
- 10) Perhaps designate a member of UBC staff to act as coordinator of urban agriculture to ensure that issues and opportunities are appropriately addressed. This could be through the Campus Sustainability Office or the Land and Food Systems Faculty.

Useful Contacts:

Campus Contacts- Main Campus Plan			
Name	Title	Phone	E-mail
Karly Henney	Planner-Community & Land Use Planning, Campus & Community Planning	604-822-4169	karly.henney@ubc.ca
Rachel Wiersma	Planning Assistant,	604-822-6930	rachel.wiersma@ubc.ca

	Campus & Community Planning		
Joe Stott	Associate Director- Community & Land Use Planning, Campus & Community Planning	604-827-5157	joe.stott@ubc.ca
Campus Contact- Urban Agriculture			
Bill Rees	Director, School of Regional and Community Planning	604-822-2937	wrees@unixg.ubc.ca
Michael Leaf	Associate Professor	604-822-6213	leaf@interchange.ubc.ca
			ubcfarm@interchange.ubc.ca
Mark Bomford	Program Coordinator, the UBC Farm		bomford@interchange.ubc.ca

Urban Agriculture (Institutes)

The Campus Sustainability Office Land and Building Services

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UBC Farm

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Scenario #4 (Group 12): Exploring Existing Opportunities that Enhance and/or Barriers that Impinge on the Sustainability of the UBC Food System within Current Campus Community Plans

Proposed OCP Amendments:

Section 1.0-Introduction, pg1:

- Sustainability and a sustainable food system should be defined with consideration to the fact that it requires the equal fusion of three domains of knowledge and activity –economic, the socio-political and the ecological.

Section 2.0-Regional Context Statement: Building Complete Communities, pg4:

- The definition of a complete community should include a sustainable food system.
- Food Security needs to be included and defined.

Section 2.0- Regional Context Statement, pg4:

- Ecological and Community sustainability need to be recognized
- Create an umbrella governing body and would be obligated to follow the sustainable vision of UBC. Their goal would be to ensure that the food system is secure and sustainable

Section 3.2- Vision: Goals of a Responsible Community, pg8:

- A Responsible Community needs to be outlined to include sustainability
- Food should be recognized as a service and as part of the ecological system of UBC.
- Should include designated garden areas on rooftops, greenways and schools for food production to aid in the creation of a sustainable food system.

Section 4.1.1-4-Land use: Green Areas, pg11:

- Food sources should be part of research (UBC Farm).
- Greenways, open spaces, green edges and green areas all need to be defined for area and function.
- Should include designated garden areas for food production to support community supported agriculture (CSA).

Section 4.1.17-20-Land use: Neighbourhoods-University Commercial, UBC Academic Core and Village Centre, pg 14-17:

- Stores must be sustainable as per definition, locally owned, community oriented and equitable.
- Should include designated garden areas for food production to support CSA

Section 4.3.1-2-Long-term Land use: Social and Community Services, pg21-22:

- Long-term land use planning should include all provisions for a sustainable community and continue with developing and planning a secure, sustainable food system at UBC.

Proposed CCP Amendments:

Section 3.2.2-Principles for Greenways and Pathways, pg 12:

- Greenways must protect and enhance ecological functions

Section 3.2.5 Sustainability Principles for Open Space, pg 13:

- Create amenities for food production in public open spaces
- Plant native edible species (and suitable non-native edible species if limitations present) wherever appropriate
- Creation of a governing body to manage open spaces
- Nutrient cycling must be considered in planning of open spaces

Section 3.3.2 Principles for Diversity of Use, pg 14:

- A certain amount of area should be allocated for growing and processing food and for performing ecological functions

Section 4.1-9-The Local Areas, pg 17-47:

- Planning should provide affordable housing types throughout the campus for people of all socio-economic, cultural and household groups
- Development restrictions for tree retention and vegetation to preserve natural habitats

Section 5.3 Strategy for Community Service, pg 62-65:

- UBC farm must be incorporated into the sustainable food system
- The governing body will outline the food outlets established in the community.

Section 5.4 Strategy for Sustainability, pg 66:

- The definition of a sustainable food system must be ecologically and socially responsible, healthy, culturally appropriate, affordable and easily accessible.
- UBC farm must be preserved as it is an integral part of the sustainable food system

- Must develop an urban agricultural strategy and include it in all future development plans on campus.
 - Extends the definition of 'green space' to rooftops.
-