

***The UBC Food System Project (UBCFSP): Summary Report
2007***

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- Synthesize the findings of 2007 AGSC 450 students
- Work with UBCFSP partners and collaborators to plan and ideally implement food system related initiatives
- Conduct meetings with UBCFSP partners to gather input for the next iteration of the UBCFSP
- Draft scenarios for the 2007-2008 year

Summary

Introduction:

The University of British Columbia Food System Project (UBCFSP) is a collaborative, community-based action research project initiated jointly in 2001 between the UBC Faculty of Land and Food Systems and the Sustainability Office's Social, Ecological, Economic Development Studies Program (SEEDS). The Project involves multiple partners including UBC Food Services (UBCFSS), AMS Food and Beverage Department (AMSFBD), UBC Waste Management (UBCWMM), Centre for Sustainable Food Systems at UBC Farm, UBC Campus and Community Planning (C&CP), Sauder School of Business classes, UBC Sustainability Office (SO), SEEDS and the Faculty of Land and Food Systems students and teaching team.

The UBCFSP is part of an Agricultural Science (AGSC) 450 Land, Food and Community (LFC) III course, a mandatory capstone course required for all 4th year Faculty of Land and Food System students. The project began six years ago and has involved seven generations of AGSC 450 students, with over 1000 student participants (130 AGSC 450 groups, four Sauder School of Business groups, and one Global Resource Systems group) to date.

The main goals of the UBCFSP are:

1. To conduct a campus-wide UBC food system sustainability assessment.
2. To create a shared vision and a model among partners of a sustainable food system.
3. To identify barriers that impinge on the ability to make transitions towards food system sustainability.
4. To develop opportunities and recommendations to UBCFSP partners and collaborators.
5. To implement measures to make transitions towards UBC food system sustainability.
6. To give students opportunities to apply all learning from their program specialization and the Land, Food and Community (LFC) series in a transdisciplinary, real-life project.

Methodology and Procedures:

Methodological Perspective:

Community Based Action Research (CBAR) serves as the methodological perspective in the UBC Food System Project (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).

The significance of Community Based Action Research (CBAR) in the UBCFSP is manifold. The Project Coordinator applies basic principles of CBAR such as consensus building and inclusiveness when meeting with partners to identify challenges in various areas of campus operations and to develop corresponding tasks felt needed to address them in drafting project scenarios. Furthermore, she works to build consensus among project partners in identifying challenges, next steps and makes every effort to collaboratively implement solutions. Students and members of the teaching team are able to participate in an established collaborative process where they can work with project partners to assist them in issues that affect them and ultimately develop tools that will help address some of the challenges identified by participants while creating opportunities for new sustainability initiatives.

Methods of Data Collection:

Methods of data collection that have been used by AGSC 450 students throughout the project's duration have ranged from conducting literature reviews, examining secondary sources, conducting interviews and focus groups to administering questionnaires and engaging in participant observations.

Project Design:

In the UBCFSP, AGSC 450 students are assigned to groups of six to eight people depending upon the size of the class. The groups are primarily responsible for designing and conducting research and planning initiatives. The AGSC 450 teaching team acts as resource persons and as facilitators to help groups with their work. The Project Coordinator works with co-investigators in planning the entire project based upon previous work, meets with stakeholders and works with them to implement recommendations. Other UBCFSP partners are act as resource persons, reviewing and giving input on student work and implementing proposed findings and action plans.

Paper Objectives:

The purpose of this paper is to provide an overview of the 2007 iteration of the project. It outlines the group tasks, findings and recommendations as well as some central outcomes that emerged from group work and meetings with stakeholders.

Overview of 2007:

2007 marked the sixth year and seventh iteration of the UBCFSP. The class consisted of 210 students divided into 30 groups working on one of eight scenarios (listed below in **Table 1**). The Project Coordinator worked closely with project partners and other food system actors to develop a series of scenarios that met the needs of staff working in our food system, fulfilled the learning objectives of the class and were manageable workloads for students in a three credit course. Each scenario contained a background and problem statement, a set of tasks needed to address the problem, recommended resources and resource people to help groups begin their work. For a full description of 2007 scenarios please see: http://www.landfood.ubc.ca/courses/agsc/450/project/files/scenarios/2007_FINAL_UBCFSP_Scenarios.htm

Scenario	Title
1.	Expanding the UBC Farm Market
2.	Creating and Strengthening Linkages between the UBC Farm and the Macmillan community
3.	Incorporating UBC Farm Items into Campus Food Provider Menus
4.	Extending BC Local Food Purchasing on Campus
5a. 5b.	Finding Ways to Increase the Sustainability of The Barn Coffee Shop Incorporating more and increasing support for BC Local and Seasonal Items into UBC Food Service Residence Cafeterias
6.	Increasing Education, Awareness, and Participation in Sustainable Food Systems
7.	Increasing Education, Awareness, Participation and Effectiveness in Composting on Campus
8.	Developing a strategy for food system sustainability in the South Campus Neighbourhood in UBC's University Town

Based upon a group's assigned scenario, students were required to produce a 30 page report and a 15 minute PowerPoint presentation of their findings. All groups were asked to complete the following tasks: (1) Provide reflections on the project Vision Statement which outlines collectively agreed upon principles that should guide our transition towards a sustainable UBC food system (2) Provide reflections and expand if necessary on the problem statement assigned to them (3) Develop new and/or refine proposed research

designs, campaigns, and action plans from previous years (4) Engage in data collection and develop action plans for implementation in 2007 and 2008 and (5) Provide recommendations for the next steps to appropriate project partners and collaborators, as well as other relevant food system actors.

Methods of data collection varied among groups and scenarios. All groups were given the opportunity to obtain information from invited guests who gave a presentations and spent class time discussing and answering questions. Guest speakers throughout the term included representatives from UBC Food Services, the UBC Sustainability Office, the UBC Centre for Sustainable Food Systems at UBC Farm, UBC Campus and Community Planning and Your Local Farmers Market Society. All students were required to review a selection of related AGSC 450 group papers, complete course readings (resources selected on an ongoing basis throughout the term and posted on the course website (WebCT) and review summaries of project findings from previous years. Methods of data collection included questionnaires, focus groups, interviews, participant observation and literature reviews. Questionnaires were administered either face-to-face or electronically, with sample sizes ranging from 30 to 550 participants. Interviews and focus groups were held with various UBCFSP partners and collaborators, students, faculty, and staff as well as a selection of off-campus participants – ranging from food distributors, producers, retailers, chefs and planners to staff and faculty from campuses across Canada.

Central Objectives, Findings and Recommendations: 2007

In the following section, specific scenario objectives are identified and key findings and recommendations are summarized from 30 group reports. For more information on specific findings please contact the Project Coordinator. The top ten group reports² can be found on the UBC Sustainability Office's website: <http://www.sustain.ubc.ca/seedslibrary/>

Scenario 1: Expanding the UBC Farm Market (Groups 3, 7, 12, 16 & 26)

Objectives:

- To determine the desirability and feasibility to expand the UBC Farm Market to include a diversity of vendors.

Central Findings:

- A survey was developed and electronically administered to 13 BC producers to determine their willingness to join an expanding UBC Farm Market (UBC FM) and under what conditions they would be most likely to attend. The sample included local producers of cheese, meat, seafood, eggs, garlic and mushrooms. Of the 13 vendors contacted, ten responded.
- Based upon vendor survey results, four out of ten vendors indicated interest in having a booth at the UBC Farm Market. Please see below for a list of these producers and their products.
 1. Windy Acres (garlic and other veggies depending upon market interest)
 2. Goat's Pride Dairy at McLennon Creek (organic goat cheeses and eggs)
 3. Greenhill Acres (beef, pork, garlic, lavender, and honey squashes)
 4. Iron Maiden Seafoods (frozen at sea salmon, tuna, shrimp, cod, octopus, squid, salmon roe and vacuum sealed smoked salmon) (Group 3, 7,12, 16 & 26 2007).
- Following completion of the survey, groups received a list of 46 other potential vendors recommended by Your Local Farmers Market Society (YLFMS). Due to time limitations, follow up contact to determine producers' level of interest in joining the UBC FM could not be made (Group 3, 7, 12, 16 & 26 2007).
- A second survey was developed and electronically administered to a wide range of community members, including UBC students, UBC Farm customers and volunteers, the University Neighbourhood Association (UNA) and others to determine the desirability of an expanded UBC FM. The survey received a total of 540 responses. Responses were compiled by all groups but analyzed separately by each group (Group 3, 7, 12, 16 & 26 2007). Based upon survey results, the following was found:

² Please see: Scenario 1: Group 12 & 26, Scenario 2: Group 12 & 29, Scenario 3: Group 20, Scenario 4: Group 6 & 9, Scenario 7: Group 8 & 21, and Scenario 8: Group 22.

- 90% of the respondents indicated that they are “very interested” in produce, 77% indicated they were “interested” in cheese products, 65% were “interested” in baked goods, and 60% were “interested” in prepared food items such as jams, sauces, ready-to-eat foods etc. (Group 12, 2007).
 - 44% of the respondents indicated that they valued BC grown products (Group 12, 2007).
 - 80.3% of the respondents indicated they would continue to purchase from the UBC FM if other vendors were local but not necessarily organic (Group 12, 2007).
 - 81.9% of respondents indicated that they were willing to pay approximately 20-30% more for higher quality, more sustainable, local and/or organic products (Group 12, 2007).
 - 68.4% of the respondents indicated that if they were to attend to UBC FM on an alternative day they would prefer Sunday (9am-2pm) (Group 12, 2007).
 - 49.2% of the respondents showed interest in participating in other UBC FM activities such as barbecues and face painting (Group 12, 2007).
 - 64% of the respondents felt organic certification is “somewhat to not important” (Group 26, 2007).
 - 83% and 77% of respondents indicated that it is “very important” and “extremely important” for foods to be free of pesticides and genetic modification (Group 26, 2007).
 - 81.9% of respondents indicated that they were willing to pay a higher premium for local products (Group 26, 2007).
- All groups determined and proposed policies, regulations and logistics that could help inform UBC Farm staff in making a decision about how the UBC FM could expand to include a diversity of vendors (Group 3, 7, 12, 16 & 26 2007). Groups proposed a set of detailed policies and regulations covering business licensing, enterprise status, registration and incorporation as a society, vendor recruitment and operations, and food safety regulations.
 - Groups investigated various logistics required for a UBC FM expansion and proposed a series of steps that needed to be taken into consideration for the following areas: insurance and liability, standards of conduct, schedule for market operations, space fees, supply of tents and tables, market layout, setup and parking, transportation, signage, vendor application process, waste management, vendor and customer membership, development of an online system to manage the vendor application, membership processes, and more (Group 3, 7, 12, 16 & 26 2007).
 - Groups also investigated and proposed a range of community outreach, education and research opportunities that an expanded UBC FM could offer to the community (Group 3, 7, 12, 16 & 26 2007).

Key Recommendations:

UBC Farm:

- Following the 2007 season the UBC FM should consider re-evaluating the viability of the proposed expansion in terms of ability to meet staffing demands and potential competition with the new Kitsilano Your Local Farmers Market Society (YLFMS) Market. If independent expansion is to proceed, the UBC FM should initiate proposed phased implementation plan beginning in the 2008 season using the short, mid, and long-term implementation stages over the course of several years. If this plan is implemented, funding should be sought for additional staff in order to carry out the implementation plan (Group 12, 2007).
- If independent expansion is not viable, consider making contact with YLFMS to discuss establishing a potential partnership in the long term where YLFMS would take over the responsibility of all market operations (Group 12, 2007).
- Begin expansion in 2007 with the inclusion of Goats’ Pride Dairy (cheeses and eggs) and Windy Acres (garlic). Further UBCFM expansion should occur by increasing vendors by two to four every year in the short term, with annual re-evaluation to allow for adaptive management (Group 26, 2007).
- Maintain the UBCFM Saturday schedule to preserve the loyal consumer base and to reduce overlap and competition for customers and vendors with the implementation of the new Kitsilano YLFMS market beginning June 2007 (Group 26, 2007).
- Consider selling only BC produce that is produced by sustainable farming methods, but not limited to certified organic vendors (Group 26, 2007).
- Implement proposed educational events to allow visitors to gain further interest in the Farm and to elicit community participation in the UBC food system (Group 26, 2007).

- Maintain present insurance policy for outside vendors in the short term, however consider in the long term, becoming a non-profit organization to qualify for BC Association of Farmers Markets (BCAFM) membership and insurance coverage (\$325), which could be covered by assessing 13 vendor stall fees at \$25 each (Group 3, 16, 26, 2007).
- Follow up contact with 46 recommended vendors suggested from YLFMS to determine desirability to join the UBC FM (Group 12 & 16, 2007).
- Follow up contact with YLFMS to arrange UBC FM promotion and to help facilitate expansion by creating a space on their website to direct vendors to the UBC FM (Group 12 & 16, 2007).

Scenario 2: Creating and Strengthening Linkages between the UBC Farm and the Macmillan community (Groups 1, 25 & 29)

Scenario Objectives:

- To investigate the desirability and feasibility of creating new or increasing existing *direct* linkages between the UBC Farm and food products purchased and served within the Faculty of Land and Food Systems.

Specific Group Project Objectives:

- To explore how UBC Farm products could be successfully integrated into the Agora Café³ (Group 1 & 25, 2007), and into weekly Agriculture Undergraduate Society (AgUS) barbeque dinners⁴ (Group 29, 2007).

Central Findings:

- Based upon interviews with UBC Farm staff, it was found that they currently have the capacity to provide Agora with both free-range eggs and blackberries, and Agora would be considered the Farm's first priority over other customers such as local restaurants and the Farm Market (Group 1, 2007).
- Based upon survey results it was found that among 84 people surveyed, 24% offered their e-mail addresses to become volunteers to pick blackberries from July through September for sales at Agora throughout the year (Group 1, 2007). When asked about willingness to buy new menu items using a selection of UBC Farm products, of those respondents who purchase food from Agora Café on a bi-weekly basis, respondents cited most frequent interest for free range egg items, including: quiche (65%), egg salad sandwiches (52%), and hardboiled eggs (32%); and for blackberry items, including: muffins (85%), smoothies (79%), and pies (70%) (Group 1, 2007).
- In order to promote sales of UBC Farm items at Agora, the following promotional materials were developed: flyers advertising the menu options containing Farm eggs and berries; an educational placard discussing the benefits of supporting the UBC Farm, for display in the refrigerated case at Agora's front counter; and a tag for use as an adornment on the Agora menu board to notify customers of items containing ingredients from the UBC Farm (Group 1, 2007).
- It was also suggested that on the main overhead Agora menu board, that the names of new or changed items including Farm ingredients be displayed in bold letters for increased attraction and awareness of seasonality (Group 1, 2007).
- Based upon interviews with Agora Café and UBC Farm staff, as well as an analysis of UBC Farm productivity trends, it was found that interest exists to incorporate UBC Farm eggs into Agora's menu. As a result, a recipe for quiche was developed along with a promotional poster. Also, a selection of UBC Farm items were selected to be incorporated into Agora's existing menu, such as ingredients for berry and squash pies, soups and sandwiches (Group 25, 2007).
- It was determined that Agora would need about four dozen UBC Farm eggs a week if they implement more egg dependent dishes such as quiche (Group 25, 2007).
- Based upon results of a survey administered to AgUS council members, and follow-up interviews with AgUS and UBC Farm representatives, it was found that AgUS is interested in strengthening their relationship with the UBC Farm, and that the most significant barriers to incorporating more UBC Farm

³ The Agora Café is a student-run outlet that serves various food items to the staff, students, and faculty in the Macmillan building.

⁴ The AgUS prepares a weekly dinner for faculty, staff and students in the Macmillan building. Attendance is on average 100 people.

produce into the barbeque dinners include: the reliability of the Farm to supply weekly orders, communication with the Farm, produce availability limiting menu options, and potential added costs that could constrain AgUS finances (Group 29, 2007).

- Based upon communication with UBC Farm representatives it was found that:
 - The development of a hypothetical contract or agreement would be helpful to determine the demand for the weeks AgUS would be ordering.
 - The possibility of offering dinners using fresh produce beyond the end of October is low where squash and sweet potatoes would likely only be available by the third week of October.
 - If the AgUS begins sourcing UBC Farm produce, the associated costs for AgUS purchasing would increase by approximately 20% (Group 29, 2007).
- A total of six menus were developed for the AgUS BBQ and three were ultimately selected. Each menu included between 8-12 UBC Farm products. Menus were developed taking into account types of cooking equipment available, range of utensils needed, and were analyzed according to standards set forth in the Canada Food Guide for meal nutritional balance. A menu implementation plan was developed that spans over the first five to eight weeks of the fall semester (Group 29, 2007).
- Promotional materials were also developed to promote the UBC Farm products in AgUS menus, such as posters (Group 29, 2007).

Key Recommendations:

UBC Farm:

- Work with the Agora Farm Liaison to begin the proposed business relationship of providing Agora Café with eggs and blackberries beginning in September 2007 and later consider providing other items (Group 1, 2007).
- Sell Agora approximately 200 eggs a month, and further explore the feasibility of providing the following produce items: berries, onions, potatoes, squash, carrots, tomatoes and peas (Group 25, 2007).

Agora Executive Committee:

- Incorporate UBC Farm eggs and berries into existing menu items and as whole-food sales (eggs by the half dozen). Once established, the project should move on to experimenting with new products such as the quiche, blackberry smoothies, muffins, pie, and other Farm products (Group 1, 2007).
- Promote the new addition of UBC Farm products by incorporating brochures, place-cards, tags (Group 01, 2007) and posters for use at the Agora Cafe (Group 25, 2007).
- Open the Agora Café after closing for volunteer work, where freezable dishes such as soup, pies and quiches could be prepared (Group 25, 2007).

Agriculture Undergraduate Society (AgUS):

- Develop a business partnership agreement with the UBC Farm that could be renewed annually. The agreement should outline the expectations of both parties, and include: Approximate quantities of produce that will be demanded and associated timeframe, service expectations, such as billing and payment parameters, storage service, order filling and notification procedures if orders can not be filled completely (Group 29, 2007).
- Implement proposed menus into AgUS menu, taking into account cost implications beginning September to mid to late October 2008 (Group 29, 2007).
- Host a fundraiser to raise funds for kitchen equipment needed to help prepare food more efficiently (Group 29, 2007).
- Promote any newly formed business relationships with the UBC Farm by incorporating a poster developed for use at the AgUS dinner and around the MacMillan building (Group 29, 2007).

Scenario 3: Incorporating UBC Farm Items into Campus Food Provider Menus (Groups 10, 17 & 20)

Objectives:

- To explore and propose how we can incorporate more UBC Farm items into the AMS Food and Beverage Department's *Bernoulli's Bagels* menu.

Central Findings:

UBC Farm Jalapeno Bagel and Cream Cheese:

- Proposed the incorporation of UBC Farm jalapenos into AMS Food and Beverage Department (AMSFBD) outlet, Bernoulli's Bagels (BB) existing jalapeno bagel and jalapeno cheddar cream cheese. Based upon interviews with UBC Farm and BB staff, quantities, and associated costs were determined (Group 10, 2007).
- Administered a survey to assess consumer awareness of UBC Farm, attitudes toward supporting local agriculture, and to gauge level of customer support for incorporating UBC Farm jalapenos into the BB menu. The survey was administered to 100 students, staff and faculty, with 50% administered in the SUB by BB during rush hours (9:00am to 11:00am) and 50% administered randomly to people around different areas of campus. Based upon survey results, the following was found:
 - 37% of respondents were not aware that the UBC Farm existed and 43% were only a "a little bit familiar" that it existed.
 - 53% of respondents indicated that they eat at BB.
 - 49% of participants felt that buying locally produced food was "somewhat important", 21% indicated that it was "fairly important", and 15% felt that it was "not at all important".
 - 100% of respondents indicated that they would be willing to support the incorporation of UBC Farm produce into BB recipes.
 - 98% of respondents indicated that they would be willing to support a price increase if UBC Farm produce is incorporated into AMSFBD outlets, of which 35% supported a \$0.25 - \$0.50 increase, 29% supported a \$0.50 - \$0.75 increase, and 18% supported a \$0.75 - \$1.00 increase.
 - 89% of respondents indicated that a jalapeno bagel and jalapeno cream cheese sounded appealing; with about 41% indicating that they had actually tried these two products (Group 10, 2007).
- A plan to freeze UBC Farm jalapenos in the off season was developed in order to create a year round supply for BB. A freezing experiment and cost analysis were conducted to determine potential feasibility. The freezing experiment results showed that although texture changes occurred to jalapenos in post-freezing, they were still suitable for baking. The cost analysis showed that with volunteer labor, freezing jalapenos would be a sustainable and profitable venture for the UBC Farm to consider (Group 10, 2007).
- A promotional strategy was developed to facilitate increased awareness of the UBC Farm and the proposed UBC Farm jalapeno bagel, and jalapeno cheddar cream cheese. It was proposed that UBC Farm staff design a point of purchase display to promote campus products that contain UBC Farm items. It was suggested that coupons be offered and included in the AMS Insider for a discount on products that feature UBC Farm produce, a section on the AMS website be devoted to include a list of UBC Farm products available in AMSFBD outlets, and that BB place a poster developed by Group 10 if UBC Farm jalapenos are incorporated into menu (Group 10, 2007).

UBC Farm Rosemary Butternut Squash Bagel Melt:

- Developed a seasonal rosemary butternut squash bagel melt special, which incorporated four UBC Farm ingredients, including squash, rosemary, garlic and onion. Ingredients were selected based upon their relative abundance and seasonal availability. Proposed that the special should run from September 17th to October 12th, 2007. Based upon interviews conducted with UBC Farm staff it was determined that butternut squash is available from September to November; garlic from July to November; rosemary year round; onion from June to November, and all ingredients were found to be available in high quantities during these times (Group 17, 2007).
- Developed, tested and conducted a cost analysis for the bagel recipe. A preliminary taste test was conducted among BB staff where positive feedback was received. A taste test was then conducted outside of BB's to 124 participants who were each given a survey with the objective to determine whether consumers would be willing to purchase such a bagel, if consuming produce produced on UBC Farm was important to them, if any improvements could be made to the recipe, and how much consumers would be willing to pay for the bagel. Based upon survey results, the following was found:

- 66% of participants were undergraduate students, 8% were staff members, 4% were graduate students, and 20% were visitors.
 - After tasting the sample, 83% of participants indicated willingness to purchase the bagel
 - 34% of participants responded that they would pay more than \$4.
 - When asked if the use of UBC Farm produce would motivate them to purchase the bagel, 81% of participants answered "yes".
 - The top 6 reasons cited for motivating purchases included: 36% cited "local", 22% cited "support UBC", 14% cited "organic", 10% cited "healthy", 7% cited "sustainable", and 7% cited "fresh".
 - When asked about what costumers liked about the bagel, 23% cited "taste", 17% cited "squash" (17%), 12% cited "seasoning", 9% cited "cheese", and 7% cited "the bagel".
 - When asked about how the bagel melt could be improved, 22% of respondents suggested adding more cheese, and 10% suggested adding more flavours (Group 17, 2007).
- Developed a marketing strategy to raise awareness among staff and consumers about the existence and practices of UBC Farm, the importance of food system sustainability, and benefits of eating local organically produced food. The proposed strategy consisted of the following components: 1) a promotional poster; 2) an educational pamphlet for consumers; 3) a frequently asked question sheet to aid staff in communicating the benefits of Farm specials and in responding to related customer inquiries; and 4) stickers that contain catchy slogans such as "kiss me I'm sustainable" (Group 17, 2007).

UBC Farm Cream Cheeses:

- Developed and prepared three recipes for flavored cream cheese using seven ingredients from a list of UBC Farm produce, that had the potential for growth. Three cream cheese recipes were developed, including: 1) "berry-licious", 2) "garlic and herb medley", and 3) "squashed" cream cheese. Recipes were formulated in accordance with proportions needed for the standard size of cream cheese used by BB. All three cream cheese options were prepared and sampled outside BB to 30 customers to gather customer feedback. Results showed 85%, 100%, and 90% willingness to buy berry-licious, garlic and herb medley and squashed cream cheese (Group 20, 2007).
- A cost analysis was conducted for each of the three cream cheese recipes, taking into account quantities of and prices for ingredients obtained from the UBC Farm. The availability and advanced notice needed by the Farm for planting and harvesting the required ingredients were also conducted (Group 20, 2007).
- Developed a series of marketing tools including: 1) a "Fresh Sheet" which outlines the benefits of local eating and lists BB's sustainability initiatives; 2) a UBC Farm logo sticker which was modeled after the UBC Farm logo but incorporates BB and the slogan, "Grown in your backyard," and "Eat fresh, eat local, eat Bernoulli's"; and 3) a poster of UBC Farm's location in relation to BB including a comparison of the distance food travels from the Farm versus a conventional supplier (Group 20, 2007).

Key Recommendations:

AMS Food and Beverage Department:

- Incorporate UBC Farm jalapeno peppers into Bernoulli's Bagels' menu in September 2007 (Group 10, 2007)
- Incorporate Group 17's UBC Farm roasted butternut squash bagel into BB menu for September 2007.
- Consider promoting the bagel by placing a 4.5" x 1.5" ad in the AMS Insider, the free UBC student day planner and information guide produced by the AMS that is distributed to 25,000 students during the first week of classes every September.
- Discuss with Imagine UBC⁵ the possibility of having MUG leaders bring groups of students to the SUB to show them where they can purchase local foods (BB and PRS), briefly explain the importance of supporting a local food system, and the UBC Farm (Group 17, 2007).
- B.B. should consider offering a "UBC meal deal", consisting of a combo containing UBC Farm apple-pear juice, and a bagel or bagel sandwich (Group 17, 2007).
- Incorporate Group 20's UBC Farm cream cheese recipe into BB menu for September 2007. Meet with UBC Farm staff as soon as possible to discuss details of delivery and pricing (Group 20, 2007).

⁵ Imagine UBC is the university's annual orientation program where participation from all 5000 first-year students is mandatory (UBC Student Services, 2007).

- Implement a "Roll-Out Strategy" for marketing proposed UBC Farm product menu items that 1) communicates the high quality of the food itself and 2) illustrates the multiple benefits associated with buying locally-produced food (Group 20, 2007).
- Host a promotional event during the first 2 weeks of school, with a table placed outside of BB, where a nutritionist would be available to answer questions about the health benefits of local food. A mascot could be created for the event - "Bernoulli the Bagel", who could distribute UBC Farm cream cheese and bagel samples and attract passers-by to visit the nutritionist and to participate in educational games such as spin the "Local Food Trivia" wheel (Group 20, 2007).
- Implement promotional tools including: 1) Informational flyer, 2) "Fresh Sheet" poster, and 3) "Grown in Your Backyard" labels to identify items with UBC Farm-sourced ingredients (Group 20, 2007).

UBC Farm:

- Investigate ways to add value to UBC Farm products by creating opportunities to process their produce on site (Group 10, 2007).
- Replace current car farm campus deliver delivers with a bike courier delivery system as part of a larger possible zero-emission strategy. A cost and emissions analysis of a bike delivery versus a car delivery system should be conducted prior to implementation (Group 10, 2007).
- Set up a program whereby all campus food providers could submit a weekly joint Farm order which would reduce transportation costs, time, labour, and gas emissions (Group 10, 2007).

Scenario 4: Extending BC Local Food Purchasing on Campus (Groups 4, 6 & 9)

Objectives:

- To determine a baseline of UBC Food provider's BC food procurement levels, and to propose a target plan to increase these levels.
- To work with UBC food providers, and identify a list of local food distributors and/or producers who would be willing and able to sell a selection of BC food products meeting the dependability, quantity, quality and cost requirements of UBC food providers.
- To identify local producers to determine potential for this collaboration, and elicit from them under what conditions they would join in the collaboration.

Specific Group Project Objectives:

- To investigate the desirability and feasibility of creating a business relationship between UBCFS's outlet – Sage Bistro, and Small Potato Urban Delivery (SPUD) (Group 4, 2007).
- To explore the potential of establishing a business relationship between Discovery Organics (DO) and UBCFS (Group 6, 2007).
- To determine the current percentage of produce that UBCFS is sourcing from within BC and which products are purchased in the highest volume. To determine how to replace or increase some of these high volume items with BC sourced items through working with UBCFS's existing fresh produce distributor – Allied Foods. To determine how several BC products that are available year round such as root vegetables and apples, can be procured by UBCFS. To propose a three phase plan to increase UBCFS's procurement of BC produce (Group 9, 2007).

Central Findings:

Small Potatoes Urban Delivery (SPUD) and Sage Bistro:

- A focus group was organized between Small Potatoes Urban Delivery (SPUD), Sage Bistro, UBCFS, and the UBCFSP representatives. Based upon the focus group, the following was found:
 - SPUD expressed interest in acting as the 'start up' company for Sage Bistro, whereby they could start ordering local food on a small scale as a testing point in their menu and prices.
 - SPUD advised Sage to start small by introducing a selection of items into its menu that could be marketed as local and organic to elicit customer support.
 - SPUD agreed to put together a wholesale and retail price list for Sage Bistro under confidentiality and to contact them regarding setting up weekly orders, and extra delivery services to campus if needed depending on quantity needs. SPUD would start supplying Sage with some fresh produce items and

serving as a first step in determining customer response and willingness to pay for the benefits of organic local produce.

- In the long run, SPUD recommended that UBCFS obtain foods directly from distributors and producers to meet quantity, variety and cost demands, and indicated willingness to help out in this process, by giving names of recommended producers (Group 4, 2007).
- Based upon email communication and snowball sampling, other producers that could potentially act as local food suppliers for UBCFS were identified, and a detailed contact list was created (Group 4, 2007).

Discovery Organics (DO) and UBC Food Services (UBCFS):

- Conducted separate interviews with representatives from Discovery Organics (DO) and UBCFS to explore the potential of establishing a business relationship where BC produce could be obtained. Based upon these interviews, the following was found:
 - DO can deliver produce to meet the needs of UBCFS in terms of quantity, quality and delivery needs and is willing to negotiate costs requirements.
 - While currently DO does not offer 'fixed' prices, they are open for negotiation with UBCFS.
 - DO indicated that they would be potentially able to provide some organic produce items at a lower cost than the conventional items that Allied supplies (i.e.: apples, potatoes, tomatoes, lettuce, sprouts, etc.).
 - DO makes recommendations of foods that farmers can produce successfully and commits to reliable distribution.
 - A representative from DO offered to collaborate with UBCFS and Allied foods to link them to local producers.
 - While UBCFS's supply needs and prices proved to be both manageable and negotiable respectively, a potentially challenging finding from DO is that they do not allow for fixed pricing contracts, which UBCFS mentioned is extremely important. DO explained that avoiding fixed pricing protects the interest of the farmer, ensuring that they receive fair prices for their produce.
 - UBCFS requires preparation of many vegetables and fruit items which DO does not perform. However, some food items are already received whole (apples, pears, some tomatoes, oranges, etc.) providing the potential for collaboration with DO to source these whole food items locally.
 - UBCFS's current distributor Allied Foods obtains only conventional apples from Washington, USA – none from local, organic BC sources.
 - UBCFS is interested in providing BC organic apples in residences and would like to explore creating a business relationship with DO to provide local organic apples, provided an appropriate price can be negotiated on.
 - Some apple varieties from DO were found to be more expensive than those obtained from UBCFS's current distributor however, other varieties were less expensive. DO indicated they were open to price negotiation for apple procurement with UBCFS (Group 6, 2007).

Allied Foods and UBC Food Services (UBCFS):

- Analyzed UBCFS customer usage and monthly velocity reports⁶ from their annual order to determine current levels of BC food procurement and which products UBCFS currently sells at the highest volume. Online sources, such as *Fraser Valley Farm Fresh Products Guide* and the BC Ministry of Agriculture and Lands were consulted to determine which products can be grown within BC, at what volume and time. As a result of the analysis a baseline of procurement origins were determined, where it was found that:
 - The produce sourced from BC made up approximately 20% of the total produce by weight, and was the third largest category, preceded by food from the United States and that from "unknown" locations. Small percentages of produce were also coming from South America (SA), Mexico (MX), as well as "other" imported regions, namely Holland (HL), China (CI), and Malaysia (MA).

⁶ *Data from the customer usage reports from March 1st, 2005 to February 28th, 2006.

Includes the following food outlets: 99 Chairs, the Barn Coffee Shop, Trekkers Express, IRC Snack Bar, Pacific Spirit Place, A&W, Arts 200 Snack Bar, Pizza Pizza at Trekkers, Koya Japan, Pizza Pizza at PAC Spirit, Reboot Café, Bread Garden, Yum Yum's, Manchu Wok, Café Perugia, Edibles Snack Bar.

- It was found that the following items currently purchased by UBCFS from Allied Foods are all of BC origin: Alfalfa sprouts, bean sprouts, basil, cilantro, rosemary, sage, blueberries, blackberries, pumpkins and leeks.
- 40% of produce sourced was of “unknown origin”. The large portion of unknown produce is generally food that is processed: sliced, peeled, diced, or otherwise altered for easy preparation.
- 28% of produce sourced was from the US.
- It was found that the following items currently purchased by UBCFS from Allied Foods are typically *not* sourced from BC, and instead are sourced from MX, US, SA, “other areas” or “unknown origins”: apples, baby spinach, spinach, broccoli, daikon, eggplant, garlic, ginger, green onion, grapes, strawberries, romaine lettuce, salad mix, sugar/snow peas and tomatoes (Group 9, 2007).
- It was found that many produce items are coming from the US, even during their Canadian growing season, and opportunity exists to increase local procurement of these items. The majority of apples are grown in the US, although the BC interior region is well known for apple production, and storage facilities enable buying locally year long. Other produce items that UBCFS orders in significant volumes and could be procured from within BC during their growing season include: broccoli, onions, lettuce, tomatoes, and potatoes (Group 9, 2007).
- Separate meetings were held with UBCFS and their fresh produce distributor Allied Foods to determine potential to increase BC food procurement. Based upon these meetings, it was found that:
 - Allied Foods tries to support local farmers “whenever it’s feasible”. However it was also found that only 16 out of 74 of the producers on the Allied Foods list are located in BC.
 - While Allied Foods maintains the records needed to trace each product back to its origin, it was found that they have chosen not to invest the resources into making this information available on the customer usage reports such as for the “unknown” origin items.
 - Certain store-able items such as apples and potatoes have a greater potential to be procured locally throughout the year.
 - Allied Foods would be willing and capable of sourcing locally if UBC were to request it, although there may be an associated cost. It was emphasized that “UBC has the volume” to make these sorts of requests.
 - Allied Foods agreed that they would be willing and capable to source locally for certain products. It seemed most feasible to work with one product at a time and for a specific period.
 - In order to solidify these demands, it was recommended that a provision to the Allied contract be added explicitly stating that UBCFS may request that certain items be sourced locally and as result be subject to any additional costs, if necessary (Group 9, 2007).
- An incremental 3 phase plan was proposed for UBCFS to increase the amount of BC produce procurement (see recommendations below) (Group 9, 2007).

Key Recommendations:

UBC Food Services (UBCFS) and Sage Bistro:

- Introduce local and sustainable items in *Sage Bistro’s* menu such as by creating BC local and sustainable specials not part of the regular menu. Aim for an order being placed for SPUD products by summer of 2007 with the goal of building a business relationship (Group 4, 2007).
- Encourage marketing and public awareness campaigns at *Sage Bistro* that explain the importance of local foods. Marketing strategies should include creating a sign in the restaurant reporting how much locally produced food is being used and placing icons on the menu identifying sustainable and local items (Group 4, 2007).
- Investigate the possibility of building a partnership with a local producer or group of producers. Begin by contacting the local producers recommended by SPUD, and Hazelmere Organic Farm (Group 4, 2007).
- Monitor the amount of money going towards local produce for UBCFS outlets and the number of local food initiatives being tried. Increase the amount of money spent and the number of initiatives implemented annually (Group 4, 2007).

- Assess the success of local food initiatives annually to decide which ones to build upon, modify or discard (Group 4, 2007).

UBC Food Services (UBCFS):

- Follow the three year plan outlined below to increase food procurement levels of BC food items:

Year 1	<p>Implement local, organic, BC apples into Totem Park and Place Vanier Residences</p> <ul style="list-style-type: none"> Begin contract and pricing negotiations between UBCFS and DO for apples and aim for a signed contract for May 31st, 2007 and implement apples into residences for September 2007. Develop a marketing campaign to target students to purchase local, organic apples. Research methods to improve sustainability through a reduction in processing/preparation requirements for produce items with aimed deadline for implementation for April 30, 2007. Assess the possibility of having a non-fixed contract with DO if more local food can be provided. Use UBCFS large purchasing power to collaborate with DO to negotiate with Allied to obtain more foods from local sources, and begin by linking them with DO producers.
Year 2	<p>Incorporate other local whole food items into residences</p> <ul style="list-style-type: none"> Conduct a thorough assessment of year 1 accomplishments and shortcomings. This review should include: demand for the apples, needs for improvement, satisfaction working with DO, contract renewal terms, effectiveness of marketing campaign, etc. Identify improvements to be made on these processes and methods of improvement (i.e.: marketing strategies, delivery options, prices, etc). Isolate and assess other whole food commodities that could be implemented into residences such as tomatoes, pears, etc. Develop and include these produce items into a new contract with DO with an aimed deadline for May 31st, 2008. Implement additional produce items into Totem Park and Place Vanier residences for September 2008. Increase demands to Allied Foods for use of more local producers.
Year 3	<p>Branch outward</p> <ul style="list-style-type: none"> Conduct a thorough assessment of year two accomplishments and shortcomings. This review should include: demand for new produce items or current apples, needs for improvement, continued satisfaction working with DO, contract renewal terms, effectiveness of marketing campaign, etc. Assess the feasibility of supplying local, organic apples to other UBCFS outlets on campus (i.e: non-franchise food outlets and UBC Catering). If deemed feasible begin implementation by September 2009 and extend marketing campaign to new outlets (Group 6, 2007).

- Consider working with the broader university community and administration in developing an internal local food policy that commits the university as a whole to the goal of purchasing locally. This will create an enabling environment where participation by food providers making local purchases would be supported and encouraged, and could also serve as a mechanism to aid in holding the university more accountable to this goal if formalized (Group 9, 2007).
- Use UBCFS's large purchasing volumes to influence suppliers (i.e. Allied Foods) sourcing practices by making special requests for local products. UBCFS should consider negotiating contractual provisions with Allied Foods to request local produce products, beginning specifically with local apples and potatoes. If successful, UBCFS can add other products that can be obtained locally during their peak seasons (Group 9, 2007).
- Request clarifications for the origins of processed foods in the customer usage reports from Allied Foods, since a large percentage of produce is currently classified as "unknown origin" (Group 9, 2007).
- Implement the "three phase strategy" for increasing local food procurement outlined in the table below:

Phases	Strategies
Phase 1	<ul style="list-style-type: none"> UBCFS advises Allied Foods to purchase all apples and potatoes from BC, increasing BC produce from approximately 20% to 26%.
Phase 2	<ul style="list-style-type: none"> Ascertain "unknown" origins for processed foods and set percentage goal accordingly. Realign local produce procurement with seasonality over summer and fall months.

Phase 3	▪ Shift menus on campus to reflect seasonality (Group 9, 2007).
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Scenario 5a: Finding Ways to Increase the Sustainability of The Barn Coffee Shop (Groups 11, 15 & 18)

Objectives:

- To explore and propose how The Barn Coffee Shop can further reposition itself as a socially vibrant sustainable restaurant on Sustainability Street.

Central Findings:

- Developed nine seasonal local recipes including three seasonal salads, three pasta sauces, and three entrée specials to be included during lunch hour at The Barn. Proposed recipes included the following: apple stuffed chicken breast, cabbage wraps, rosemary pork roast, spinach salad, spinach and apple salad, carrot, apple and cabbage salad, winter squash sauce and tomato cream sauce. Corresponding nutritional analysis were also developed for each recipe (Group 15, 2007).
- Developed plans to enhance the social atmosphere of The Barn along with a corresponding budget. Plans included suggestions to improve the interior design, add couches and plants, purchase new table cloths, repaint walls, and provide more seating on the patio. Also, it was proposed that The Barn consider renting out the second floor for group meetings and social events which could help enhance its financial sustainability (Group 15, 2007).
- Proposed creating a “Barn Art Project”, whereby UBC Arts students could have the opportunity to display their work for sale or rental. The Barn could obtain a portion of the sales of each art work to be pooled back into a fund to maintain the project, and to purchase new interior décor, etc. (Group 15, 2007).
- All scenario groups collaborated in launching a fundraising event entitled “Think and Drink Green” beer garden to raise funds for proposed initiatives to enhance the social atmosphere of The Barn. Approximately \$150 was raised to invest in startup costs (Group 11, 15, & 18, 2007).
- Developed and launched a survey at the fundraiser to 101 attendees to obtain input regarding how The Barn could become a more socially vibrant sustainable outlet. Based upon survey results, the following was found:
 - 26% of respondents stated that they have purchased food from The Barn.
 - 71% of respondents indicated they would go to The Barn if alcohol was served.
 - 64% of respondents said they would eat at The Barn if its hours of operation were extended.
 - 60% of respondents preferred local and organic food and 30% said it “did not matter”.
 - Respondents indicated that from a selection of ten appetizers, 74% would like to purchase yam fries, 43% nachos, and 41% fresh salads, and 40% chicken wings (Group 18, 2007).
- Developed a seasonal appetizer menu incorporating food made from locally available produce. Specifically, appetizers were developed to correspond with each season, including a selection of fall menu items (toasted pumpkin seeds, crunchy fall salad, and mixed root veggies), winter items (pear goat cheese salad and baked apple chips), summer items (tomato and basil crostini’s, summer bean salad, seasonal veggies and dip) and also “all year” items (pita chips with fresh garlic basil hummus, sweet potato fries with blue cheese dip, nachos and salsa, wings, ostrich, turkey, and beef burgers) (Group 18, 2007).
- Determined logistics required in order for The Barn to obtain a food-primary liquor license to enable beer and wine sales which could help increase profits and enhance its social atmosphere (Group 18, 2007).

Key Recommendations:

UBC Food Services:

- Integrate Group 15’s proposed BC seasonal dishes, including three local and seasonal sauces, three salads and three entrees into the current menu and make corresponding nutritional analysis for these items available on the menu (Group 15, 2007).
- Launch similar fundraising events like The “Think and Drink Green” beer garden BBQ twice a year to help draw in customers, and to aid in creating funds for sustainability initiatives (Group 15, 2007).

- Contact the UBC Art Faculty to determine the feasibility of creating a program whereby student artists can display and sell their art and where The Barn can take a small portion of the profits to raise money for social sustainability initiatives (Group 15, 2007).
- Review proposed interior redesign plans and consider implementing them (Group 15 & 18, 2007).
- Obtain a liquor license which could help enhance the social atmosphere, increase revenue, and help create a unique identity for The Barn (Group 18, 2007).
- Increase the uses of The Barn to host campus wide functions in the future, such as by hosting promotional events at the start of the school year during Imagine Week to ensure that all new students know about The Barn and its sustainability efforts. The event could include prize giveaways and specials for customers (Group 18, 2007).
- Consider gradually increasing operating hours. Later hours could be implemented one night a week for an event such as karaoke, and if successful, later hours could be adopted on other days with theme nights such as "Hockey Night in Canada at The Barn" (Group 18, 2007).
- Implement proposed seasonal appetizer menu (Group 18, 2007).
- Hire more students to work at The Barn to help create a more socially sustainable environment (Group 18, 2007).

Scenario 5b: Incorporating more and increasing support for BC Local and Seasonal Items into UBC Food Service Residence Cafeterias (Groups 5 & 28)

Objectives:

- To explore and propose ways that more seasonal BC food items can be incorporated into UBC Food Service (UBCFS) residence cafeterias: Place Vanier's Dining Room, and Totem Park Dining Room.

Specific Group Project Objectives:

- To investigate the desirability and feasibility of incorporating more local food into Place Vanier Dining Room (Group 5, 2007) and Totem Park's cafeteria (Group 28, 2007).

Central Findings:

Place Vanier's Dining Room:

- Developed two seasonal local soups - butternut squash and a potato-leek soup which were developed using local seasonal ingredients and prepared at Place Vanier. A market test trial of these soups was conducted, where four soups were developed - a local and a non-local potato-leek soup, as well as a local and a non-local butternut squash soup. Place Vanier customers chose and purchased soups at their own will with the aid of four informative posters placed above the soups, which indicated whether they were local or not. One group member disguised themselves as an undercover shopper and took a tally of which soups were being selected. Tally results indicated that out of 60 customers, 26 purchased the local butternut squash soup, six purchased the non-local butternut squash soup, 15 purchased the local potato-leek soup and two people purchased the non-local potato-leek soup (Group 5, 2007).
- After purchasing the soups, a random selection of 38 customers were asked a series of questions about the rationale behind their soup selection. Based upon survey results, it was found that 22 customers indicated that they purchased the soup because it was "local", 14 because "it looked good", and 2 because "they had it before" (Group 5, 2007).
- An investigation was conducted to determine options for sourcing local soup ingredients from BC producers. Two local producers were contacted and interviewed, including 1) Forstbauer Natural Farms, and 2) Lowland Herb Farms. Below is a summary of findings that emerged from the interviews:
 - 1) Forstbauer Natural Farms:
 - Forstbauer Farms is situated in Chilliwack, where kale, chard, potatoes, and squash are grown throughout the winter season. Staff indicated feasibility in meeting the large-scale operation demands of Place Vanier of a specific menu item such as squash, which the grow an ideal variety.
 - Forstbauer Farms indicated that they are able to plant crops in accordance according with customer's volume needs and explained that if a consistent, long-term (about eight months) contract were drawn up with Place Vanier, they would be willing to negotiate prices.

- Concerns voiced included the ability to transport the produce in a timely enough fashion to retain freshness.
- Contact information was provided for a variety of other local producers and distributors who might also be interested in providing local food at Place Vanier.

2) Lowland Herb Farms

- Lowland Herb Farms is situated in Chilliwack and grows a large variety of different fresh herbs throughout the year. Staff indicated that the only herb that they could supply in the volumes required by Place Vanier is rosemary which could be incorporated in the potato-leek soup recipe (Group 5, 2007).
- At the recommendation of Forstbauer Natural Farms, a representative was contacted from the Eat BC! Program, developed by the BC Restaurant and Foodservice Association, and funded by the Ministry of Agriculture and Lands. The Eat BC! Program is a two-week long event held in September and is designed to increase awareness about BC foods around the province where restaurants participate by featuring local BC dishes of either an appetizer, main course, and/or dessert, which is promoted widely by participating media groups. The Program includes contests for diners to enter. While UBC Food Services is currently not on the list of participants of Eat BC! based upon communication with Eat BC! representatives a strong desire was expressed to see UBC food providers participate in the next campaign to be launched in September 2007 (Group 5, 2007).

Totem Park Dining Room:

- Developed eight seasonal recipes, from which two were chosen (carrot soup and vegetarian Shepard's pie) by Totem staff for a taste-testing event (April 10, 2007) that took place at UBC Totem Residence cafeteria. Totem staff sourced local ingredients for the two recipes and prepared the meals for sampling (Group 28, 2007).
- A table was set up in Totem Park with posters indicating the purpose of the taste testing and the importance of eating locally. Samples of the two dishes along with surveys were distributed to obtain feedback on the dishes, as well as to obtain information about willingness to buy a selection of six other local dishes. A total of 100 surveys were administered of which 86% were returned. Based upon survey results, the following was found:
 - 68% of participants indicated that the carrot soup with ginger was "good" or "very good".
 - 67% of participants indicated that the shepherd's pie was "good" or "very good".
- When asked about willingness to buy a choice of six other seasonal local dishes, 50% of the students chose sesame parmesan vegetables as their top choice, 40% chose potato-leek soup, and 40% chose vegetable borscht (Group 28, 2007).

Key Recommendations:

UBC Food Services and Place Vanier Dining Room:

- Increase advertisement of current local ingredients and dishes within the dining room at Place Vanier which could help increase awareness and demand among Place Vanier's customers (Group 05, 2007).
- Implement a local food awareness campaign including hosting local food dinner events, providing pamphlets, and web-resources on the Place Vanier internet site which could help increase customer demand (Group 5, 2007).
- Incorporate Group 5's two seasonal local food soups (butternut squash and potato-leek soups) within Place Vanier's menu.
- Discuss the feasibility of sourcing pre-prepared ingredients with Allied Foods, using UBCFS' s large volume purchasing power as a leverage point (Group 5, 2007).
- Register in the September 2007 Eat BC! Program, and include Place Vanier as a participant to feature a selection of local dishes, and consider including other UBCFS outlets in the campaign (Group 5, 2007).

UBC Food Services and Totem Park Residence Dining:

- Implement Group 28's six proposed recipes (carrot soup, shepherd's pie, sesame parmesan vegetables, potato-leek soup, and vegetable borscht) into Totem's menu in fall 2007 from September to November, with a different local food menu item featured each week so that it becomes a tradition to have a local item featured on a particular night each week (Group 28, 2007).

- Place local food labels next to items in the salad bar, as well as the educational display created by Group 28 and the Residence Sustainability Coordinators about “why to eat local” (Group 28, 2007).
- Collaborate with Residence Sustainability Coordinators to provide more local food donations for educational events, such as the “Open Minds Open Mic” local food night (Group 28, 2007).

Scenario 6: Increasing Education, Awareness, and Participation in Sustainable Food Systems (Groups 13, 24, 27 & 30)

Objectives:

- To develop an educational campaign, including a set of tools, activities, and steps of action required to increase awareness and education about campus food system sustainability initiatives targeted to the UBC community to be incorporated into the second *UBC Sustainability Fair* on October 3rd 2007.

Central Findings:

- Below is a summary of group proposals regarding the development of activities, tools and resources to be used at the upcoming UBC Sustainability Fair⁷.

Sustainability Fair 2007: Proposed food system sustainability components	
Target Population	<ul style="list-style-type: none"> • UBC faculty, staff and students.
Location	<ul style="list-style-type: none"> • Student Union Building (SUB) concourse
Date	<ul style="list-style-type: none"> • October 3, 2007
Events/ Activities	<ul style="list-style-type: none"> • <u>Information booths</u>: Proposed a selection of campus participants including organizations, faculties, and departments, and off campus participants including businesses, government agencies, and non-governmental organizations (Groups 13, 24, 27 & 30, 2007). • <u>Interactive activity booths</u>: Developed templates for a gardening booth, recipe sharing booth (Group 30, 2007), and sampling booth to raise awareness of differences between local and non-local foods (Group 27, 2007). • <u>Games</u>: Developed templates for the following games: 1) “Do you know where you food comes from?”, 2) “Food Costs” (Group 30, 2007), 3) “Are you smarter than an Aggie?”, and 4) “Know Your Seasonal Foods?” (Group 24, 2007). • <u>Food outlets</u>: Developed seasonal local recipes for food providers to incorporate into their menus on the day of the event (Group 13, 2007). • <u>Farm Vendors Booths</u>: Proposed that local farmers and farmers markets be invited to sell produce at the Fair (Group 27 & 30, 2007). • <u>Beverage Booths</u>: Proposed that local beer and wineries host booths to sell beverages (Group 30, 2007). • <u>Food Sampling booths</u>: Proposed local chefs sample seasonal dishes (Group 30, 2007). • <u>Entertainment</u>: Proposed musicians, DJs and stilt-walkers (Group 30, 2007). • <u>Movies</u>: Proposed that one of the following two movies be shown: “Our Daily Bread” and “<i>Black Gold-Wake Up and Smell the Coffee</i>” to help raise awareness and education about food systems sustainability (Group 24, 2007).
Educational Tools	<ul style="list-style-type: none"> • <u>Pamphlets</u>: Developed a mini pamphlet designed to provide information about food system sustainability and contains links to related resources (Group 30, 2007). • <u>Posters</u>: Developed four posters, including: 1) comparison of true costs of local and non-local foods, 2) nutritional properties of local and non-local foods, 3) food miles, and 4) composting (Group 27, 2007). • <u>Graphics</u>: Designed a graphics and a slogan (BOSS- Beyond Organic Sustainability

⁷ The UBC Sustainability Fair is an annual one day event designed to raise awareness, education and participation in sustainability issues.

	<p>System) to be used on posters, pamphlets and t-shirts (Group 13, 2007).</p> <ul style="list-style-type: none"> • <u>Website</u>: Developed a website that provides educational tools and resources that consumers can use to help enhance food system sustainability awareness and behavior. Website included information about sustainability, resources about how to preserve food, buy local food, and prepare seasonal dishes (Group 27, 2007). • <u>Calendar</u>: Developed a desktop calendar that provides information about sustainable food systems, including the importance of seasonal and local foods, seasonal recipes, links to farmers markets and information about composting (Group 27, 2007).
Promotional Tools	<ul style="list-style-type: none"> • <u>Slogans</u>: "Eat thoughtfully, Think Sustainably" (Group 27, 30, 2007). • <u>Logos</u>: 1) Developed a logo that depicts an apple with a sprout growing out of it with the corresponding Fair slogan (Group 27 & 30, 2007) • <u>Mascots</u>: Two vegetable mascots were proposed (carrot and a tomato) to direct people to the event (Group 30, 2007). • <u>Other</u>: Pins and t-shirt templates were developed that featured the Fair slogan (Group 30, 2007). • <u>Advertisement</u>: Advertisements promoting the event were developed, including: ads for the AMS Agenda (Group 24 & 30, 2007) and posters (Group 24, 30, 2007).
Evaluation Tools	<ul style="list-style-type: none"> • Developed a comment card to elicit feedback about Fair strengths and weaknesses and to gather suggestions for the following iteration of the event (Group 30, 2007).
Participants	<ul style="list-style-type: none"> • A wide range of participants were recommended by all groups, including: UBC food providers, campus sustainability student organizations, UBC departments and faculties who have a sustainability focus or mandate, off-campus organizations such as non-government and government organizations, and businesses that have a food sustainability focus, chefs, and entertainers (Groups 13, 24, 27 & 30, 2007).
Donations	<ul style="list-style-type: none"> • Secured tentative commitment from three local producers to donate produce to the Fair to be awarded for prizes and used at food sampling booths (Group 30, 2007).
Budget	<ul style="list-style-type: none"> • Total expected cost: \$920.00 (Group 13, 2007), \$1348.00 (Group 24, 2007), \$1773.02 (Group 27, 2007), and \$3561.10 (Group 30, 2007).

Key Recommendations:

UBC Sustainability Office:

- Host the Fair inside the student union building instead of outside to increase participation (Group 13, 2007).
- Launch the Fair in September instead of October to avoid conflict with students' midterms (Group 13, 2007).
- Encourage students from AGSC 100, 250, and 350 to volunteer at the Fair by giving out bonus marks for participation (Group 13, 2007).
- Follow up contact with proposed fair participants as soon as possible to confirm ability to attend event or provide donations (Groups 13, 24, 27 & 30, 2007).
- Consider screening films in collaboration with UBC Sprouts (Group 24, 2007).
- Print and distribute our "Eat Thoughtfully, Think Sustainability" desk-top calendar at the Fair and sell for minimum donation of \$2.00 to help cover printing costs (Group 27, 2007).
- Incorporate proposals for the apple booth and local vendors' booths (Group 27, 2007).
- Encourage other faculties to get involved in participating and planning the Fair (Group 30, 2007).
- Distribute comment cards at the Fair to elicit feedback on strengths and weaknesses (Group 30, 2007).

Scenario 7: Increasing Education, Awareness, Participation and Effectiveness in Composting on Campus (Groups 2, 8, 19, 21 & 23)

Objectives:

- To analyze the effectiveness of current initiatives on campus that aim to raise awareness, support and participation in composting and propose ways to increase the overall effectiveness of composting on campus.

Specific Group Project Objectives:

- To evaluate current awareness levels of composting at the Acadia Park Family Residences and University Apartments and to find ways to increase participation in composting among residents (Group 2, 2007).
- To evaluate the current effectiveness of composting initiatives and to find ways to improve composting awareness through marketing at one UBC Food Services outlet - Caffé Perugia, with the aim that results could be applied to other food outlets (Group 8, 2007).
- To investigate levels of awareness of composting, particularly in the Student Union Building (SUB), and the effectiveness of corresponding composting marketing tools. To propose ways to increase the effectiveness of the current composting program at UBC, with a focus on the SUB. To investigate the feasibility of implementing a paper towel composting program in the SUB washrooms (Group 19, 2007).
- To design a social marketing scheme that involves a participatory learning component, fostering sustainable waste management behavior such as increasing composting awareness and a greater understanding of efficient waste sorting (Group 21, 2007).
- To conduct a critical review of the "Get Caught Composting Campaign" (GCCC), an initiative created by former AGSC 450 2006 colleagues and partners, in order to evaluate its effectiveness and increase its awareness on campus (Group 23, 2007).

Central Findings:

Acadia and University Apartments:

- Electronic and face-to-face interviews were conducted with representatives from Acadia and University Apartments to obtain ideas for collecting data and raising awareness about composting. It was found that:
 - A high level of interest exists between management and staff to find ways to increase the effectiveness of composting in residences.
 - A small composting program is already in place that largely involves residents making use of the community garden located next to the commons block. The garden is a relatively centrally located, contains 84 plots and an in-vessel compost collection bin.
 - A number of roadblocks exist in increasing awareness and participation in composting in the residence.
 - Composting information was only found to be provided on posters within the garden area, thus mainly residents who have garden plots or those who frequent the area are likely aware of and bring organic waste materials to this collection bin.
 - A high number of international resident students exist who are unfamiliar with the concepts and the practice of composting organic waste.
 - Difficulties were encountered in establishing a recycling program in residences. It was indicated that adding composting bins to the already existing side by side garbage and recycling bins found throughout the residence areas would cause more confusion, creating new problems and additional workloads for the maintenance staff.
 - Acadia Park and University Apartments have extremely transient populations, with many families moving in or out every month, making education regarding sustainable waste disposal difficult.
 - A desire existed to target residence children in an effort to increase support and participation in composting. It was thought that this would serve as a more effective way to helping reluctant parents try composting, whereby if the children of the families become excited about programming within the residence then the parents are much more likely to become involved as well.
 - Within Acadia and University Apartments there are "Community Assistants" that plan and run programs for different age groups. It was suggested that these programs could serve as an ideal avenue to educate younger children about composting (Group 2, 2007).
- A fun yet simple game was created that a Community Assistant could play with a group of kids to increase awareness and participation in composting (Group 2, 2007).
- Two informational pieces were created and included in the Acadia Family Residences April newsletter to increase knowledge and desire among residents to engage in composting (Group 2, 2007).

Caffé Perugia:

- Interviews were conducted with the manager of UBCFS outlet Caffé Perugia to obtain information and feedback on current composting practices at the outlet. It was found that many concerns existed with the

current composting system in place, including: 1) the need for more continuity between the composting materials; 2) the desire for clearer signs above the waste station indicating which site-specific items could and could not be composted; and 3) frustration with how frequently the compost had to be discarded, as leaving it in the café bin attracted fruit flies that are unfavorable to any food venue (Group 8, 2007).

- A site survey was conducted at Caffé Perugia where it was found that some tools already existed to encourage composting, such as: 1) one side-by-side waste station that had bins for garbage, recycling, and composting waste, and 2) signs located above the waste station and tent-cards located on the dining tables provided composting facts. These prompts included information about the in-vessel, what materials can be composted, and the importance of composting. It was found that little continuity existed between these materials, where each were provided by different stakeholders and carried no standard formatting or logos (Group 8, 2007).
- A waste audit was conducted at Caffé Perugia to determine if a change from current composting posters to three new alternative posters developed by the group could create a measurable increase in amount of compost produced. A series of three new posters were designed and evaluated where they should be placed for optimal effectiveness in accordance with social marketing principles (Group 8, 2007).
- Two three-day trials were conducted over a two week span at Caffé Perugia with and without the compost posters by following the nine basic steps to performing a waste audit as recommended by the New South Wales Department of Environment and Conservation (NSWDEC). Based upon the waste audit the following was found:
 - The average compost weight increased by nearly 20% when the new signs were implemented, increasing from 4.2 pounds the first week to 5.0 pounds the second week.
 - No difference was observed in the content of waste being composted over a two week span.
 - The content consisted mainly of paper products including plates, coffee cups, napkins, and checkered tray liners.
 - A low level of contamination was also observed in both weeks, as the group found the occasional milk carton and plastic utensil in the compost bin (Group 8, 2007).

Student Union Building (SUB):

- A visual assessment was conducted of composting facilities and initiatives in the SUB. Based upon the assessment it was found that a total of six composting stations exist within the SUB main level and two on the basement level. Some contamination within the bins was noted, such as Styrofoam food containers, wooden chopsticks, and plastic drink lids. Photos of the signs above the sort stations were taken (Group 19, 2007).
- Three, 45-minute focus group sessions were held to assess the current level of knowledge regarding composting at UBC, particularly in the SUB. Six current composting signs used in the SUB were shown to focus group participants who were asked to evaluate the effectiveness of these signs, and to suggest improvements to increase the efficacy of the signs in reducing contamination. Participants were asked to describe and draw their version of an "ideal" composting sign. Finally, participants were asked to discuss the idea of paper towel composting to determine the likelihood that the potential implementation of such a program will be supported. Based upon focus group results, it was found that:
 - A lack of awareness of the compost program at UBC exists, particularly regarding access to compost sites, and understanding of the composting process.
 - There is a need for clearer signs which also provide incentives such as social, economic and environmental reasons to participate in the composting program.
 - Certain barriers to composting include: providing too many garbage cans in the SUB and providing insufficient education to the students.
 - Composting could be encouraged through awareness events and the use of one consistent campus-wide sign which emphasizes the relevance of composting.
 - Participants were highly enthusiastic about beginning a paper towel composting program but were concerned about funding.
 - The majority of participants felt that an ideal composting sign, should be simple and catchy, contain simple slogans that would grab attention; that a checklist was needed on the sign to identify the most common items that can and cannot be composted, along with pictures of these items.
 - Many participants also agreed that incentives towards composting were needed, such as informing students that compost diverts food waste from the landfills and can be converted to soil to be used on

the UBC campus. Many students believed that it was important to indicate on the sign the importance of composting and how their food waste would be used.

- The majority of participants liked the use of red “stop” and green “go” colors to indicate compostable items. They felt that a clear list of compostable and non-compostable items were needed.
 - The majority of participants believed the title is an important aspect towards grabbing attention, and that it should not contain scientific jargon while still emphasizing the preservation of the environment. However, disagreement for specific title wording was evident. Some believed the word “organic” was too political or scientific, whereas others believed “organic” symbolized environmental concern. Most felt the word “compost” was useful in the title, but some worried that not all students are familiar with the concept of composting (Group 19, 2007).
- A brief questionnaire was also designed and administered to participants at the beginning of each focus group to assess current levels of composting knowledge. Based upon the focus group survey responses, it was found that:
 - Current knowledge regarding composting at UBC, particularly in the SUB, is very minimal
 - Though the majority of students visit the SUB throughout the school year, almost half of the students in the focus groups did not know that composting bins were available in the SUB.
 - Many students were unaware that all food waste can be composted. Many students were also unaware that paper plates/cups and napkins can be composted and that treated wood such as chopsticks cannot be broken down in UBC’s composting in-vessel (Group 19, 2007).
 - Based upon input obtained from focus groups, six new signs were designed to address current contamination issues and prospective issues if a paper towel compost program is implemented. These signs were designed to be displayed within the SUB washrooms (Group 19, 2007).
 - Telephone interviews were conducted with four institutions that have successfully implemented paper towel compost programs (Parliament Hill, Whistler/Blackcomb, Acadia University and International House at UBC) to assess whether or not it would be possible to implement a paper towel composting program at UBC, beginning with a pilot project in the SUB. Based upon these interviews, the following was found:
 - Paper towel composting programs at these institutions have been running for varying lengths of time, from one month to seven years.
 - Each reported to have effectively implemented these programs, and noted excellent compliance and success.
 - Each institution shared valuable lessons which the group believed should be used to inform the development of a similar program at UBC, as outlined below:
 - 1) All institutions emphasized the importance of having maintenance staff on board in the project, and to ensure that they are equipped to deal with the added work of composting paper towel.
 - 2) The importance of communication with all stakeholders including but not limited to: waste management, waste removal contractor, and those who will be using the washrooms, was also emphasized by all institutions.
 - 3) The importance to conduct a survey of how many washrooms will be involved, the frequency of washroom staff emptying waste bins, amount of extra time involved, and the projected cost of the program was also emphasized by all institutions.
 - 4) All institutions reported that as long as an easily understood sign such as “Paper Towel Only” is provided, along with a smaller can for garbage items, contamination did not appear to be a problem.
 - 5) In most cases minimal costs were associated with paper towel composting, which includes the initial costs of providing composting bins and signs in the washrooms (Group 19, 2007).
 - Based upon a literature review it was found that in-vessel composting is known to be able to successfully eliminate pathogens (Group 19, 2007).

Social marketing scheme:

- Developed an interactive composting game called “bin basketball” to encourage campus community education, awareness and participation in proper composting. The game was tested at a booth in the SUB during Responsible Consumption week (March 19-23rd, 2007). Participants were guided to a table with a sample of contaminated compost and a poster illustrating the correct bins for 14 commonly encountered wastes. On an adjacent table, a bulletin board was displayed depicting pictures of the in-vessel and the

different areas of waste management. A map was created and displayed depicting all campus compost bins so participants could identify bin locations. A sign-up sheet for tours of the in-vessel, composting workshops, and bimonthly newsletters was provided at the table. Participants were given the opportunity to participate in the game, where they were asked to sort through 15 items⁸ that are most frequently incorrectly composted and to throw them into color coded bins they felt they belonged in: green (compost), grey (recycling), and black (garbage) (Group 21, 2007).

- A tally sheet was developed to keep track of the items deposited into each bin, to determine which ones were particularly problematic and which were not. Based upon observations, the following was found:
 - 23% of participants composted correctly, 13% composted partially, 50% did not compost at all, and 2% recycled.
 - The items that caused confusion for people who did not compost correctly included composting chopsticks, plastic sushi containers, and milk cartons; all of which are not compostable.
 - Paper cups and pizza boxes were the most frequently compostable wastes that were not composted.
 - Many subjects did pause and think before placing their wastes in the different bins, but looked confused at the idea of sorting their wastes (Group 21, 2007).
- A follow up survey was administered to 30 participants to determine past and present composting behaviour, and if new knowledge was gained after the game was played. As an incentive, participants were given a gift certificate and were entered into a draw for a \$100 shopping spree at the RCW. Based upon survey results, the following was found:
 - 37% learned that chopsticks are not compostable and 23% learned Starbucks cups can be composted
 - 30% of participants were not able to identify the composting station on campus.
 - 27% of participants could identify at least one composting station in the SUB, 13% in the residence cafeterias, and 10% in the MacMillan building.
 - 100% of participants indicated that they were willing to compost in the future and also agreed that the bin basketball activity was more effective at reinforcing composting behavior than from reading a pamphlet or a brochure (Group 21, 2007).

Get Caught Composting Campaign (GCCC):

- Based upon a literature review of GCCC initiatives at other campuses, two Canadian Universities were found who implemented similar campaigns, outlined below:
 1. University of Toronto in Mississauga: A GCCC was implemented whereby volunteers knock on residence doors, and if residents were found to be composting correctly they are awarded with fresh fruit and points that enable them to win a gift certificate from the UTM bookstore. In order to get the residence's attention a siren is sounded where prizes are awarded.
 2. At McGill University: A composting program for residences is in place, where participants pay a membership fee. In return, they receive compost for their garden or window boxes. By having this program, McGill University successfully composts one tenth of the university's organic waste (Alter, 2007, in Group 23, 2007).
- A questionnaire was electronically administered to all ten of the GCCC volunteers from January 2007 term to determine what actually took place during the campaign, subjective opinions on certain aspects of the campaign, such as how they felt the people "caught" responded to being "caught composting", and whether they personally felt that the campaign was successful or not. Six of the volunteers agreed to take part in the questionnaire, although only three submitted a completed questionnaire. Based upon the survey results, the following was found:

Description of GCCC 2007 implementation:

- The GCCC was implemented in January 2007 by UBCWM and 10 volunteers
- Each volunteer was required to take part in a training session with UBCWM

• ⁸ Items included chopsticks, milk cartons, take-out sushi containers, and were deemed problematic based on the contamination information gathered from UBC Waste Management.

- Each volunteer spent 1 ½-2 hours once or twice a week throughout January at various food services outlets (the Barn, the SUB, 99 chairs, Yum Yums, and Caffé Perugia) “catching” people composting. Volunteers were given 10 to 20 coupons to reward those they “caught” composting correctly.
- If people were observed composting some of their compostable items, not composting at all, or composting incorrectly, the volunteers would go up to them and let them know what they had done incorrectly, what they should do the next time, and answer any questions that they had regarding composting, or composting on campus (Group 23, 2007).

Volunteer impression of the GCCC:

- Volunteers reported that people had a variety of responses to being approached, ranging from embarrassment, a startled reaction, and happiness at receiving a prize and being acknowledged.
- All volunteers stated they felt that the GCCC had been a successful campaign, in that they were able to raise awareness and teach those eating on campus about composting, although the amount of people that they were able to directly affect was quite small (Group 23, 2007).
- Raw data was collected and analyzed from seven tally sheets filled out by volunteers throughout the January GCCC. These sheets were used to record the number of people observed composting correctly, composting partially and not composting at all, as well as general observations made by the volunteers. Based upon an analysis of tally sheet results, the following was found:
 - 40% of those observed composted correctly, 14% of those observed composted partially, and 46% of those observed did not compost at all. Thus 60% did not compost correctly or compost at all.
 - The number of people observed disposing of food appeared to be much lower than would be expected in a 1 ½ to 2 hour time slot in the middle of the day (11 am and 1 pm).
 - Only 7 out of 10 of tally sheets were returned by volunteers.
 - It was found that tally sheets were not filled out in a consistent manner by the volunteers, with one volunteer writing “too many” in their observations of people composting incorrectly (Group 23, 2007).
- A survey was administered to 48 faculty, staff and students at various locations across campus to determine levels of composting behavior, awareness of the GCCC, and if aware to obtain input on its effectiveness and elicit suggestions for improvement. Based upon survey results, the following was found:
 - When asked if participants were aware of composting, 81% of the people responded “yes”; however only 60% could explain what composting constitutes.
 - When asked if participants had heard of the GCCC, 90% responded “no”. Those who knew about the GCCC found out from advertising.
 - Of those who reported that they were aware of the GCCC the majority reported that “the GCCC reinforced my already positive attitude towards composting” (Group 23, 2007).
- Based upon survey results and a review of social marketing principles, it was found that the coupons that are currently distributed by the GCCC program – UBCFS coupons, have no composting connotation, and by many are not seen as a big enough incentive for change. Also it was found that no part of the implemented campaign created societal norms around composting on campus, such as through provision of incentives to increase positive composting behavior (Group 23, 2007).

Key Recommendations:

UBC Waste Management:

- Increase the number of compost bins on campus to reflect the ratio where 70% of UBC waste can be composted or recycled. Aim to have a composting facility accompany every garbage bin on campus (Group 8, 2007).
- Encourage food outlets to increase the convenience of composting for consumers, such as by encouraging the placement of compost bins in strategic locations such as at every food outlet exit points (Group 8, 2007).
- Review the marketing campaign that Group 8 designed and implemented in collaboration with Caffé Perugia to determine whether it could be adapted to suit the needs of other food outlets to help build a universal composting campaign across campus (Group 8, 2007).

- Audit the amount of paper towels currently being directed to landfills (Group 19, 2007).
- Determine the feasibility of implementing a trial run paper towel composting program in the SUB washrooms (Group 19, 2007).
- Determine the willingness of custodial staff in becoming involved in a paper towel composting program the SUB (Group 19, 2007).
- Determine the desirability and feasibility to recruit a volunteer or "Sustainability Coordinator" within the SUB to empty paper towel bins on the days that Plant Operations pick ups other organic waste (Group 19, 2007).
- Develop a program to educate and involve maintenance staff in composting programs (Group 19, 2007).
- Improve communication of compostable and non-compostable items (Group 21, 2007).
- Supply "Compost Me" stickers to UBC food providers for use at their outlets (Group 21, 2007).
- Improve the success of the GCCC, by training volunteers to return the GCCC tally sheets, including precise times, dates, locations, and accurate tally numbers for the data collected on each sheet. Include a space on tally sheets to obtain contact information from some of the participants caught composting to enable feedback to be obtained (Group 23, 2007).
- Replace the UBCFS coupon GCCC incentive with pins depicting a theme related to composting (i.e. images of people attractively composting, flowers or food growing out of "garbage", or an image depicting the "magical" transformation of food waste into rich soil, perhaps with a magic wand involved) which could aid in creating a community norm, and promoting the campaign (Group 23, 2007).
- Place GCCC posters in participating food outlets where they are visible to customers or those standing in line. Posters promoting the GCCC should include a catchy phrase such as "Get caught composting by spies to win a prize!" that reminds people to compost when finished eating (Group 23, 2007).
- A photo board displaying pictures of composters caught by the GCCC volunteers should be placed above or near compost bins (Group 23, 2007).

UBC Housing Department and UBC Waste Management:

- Develop and administer a composting information package to each new resident that moves into Acadia or University Apartments. This package would include a general introduction to the theory and benefits of composting, composting programs in the residence, and practical information, such as locations and proper procedures for composting (Group 2, 2007).
- Increase the number of composting bins throughout the residence to encourage composting by residents who live further from the community garden collection bin (Group 2, 2007).
- Develop and place posters in public areas where new composting bins are introduced to educate residents about composting and encourage use of these new facilities. Place signs by the side of garbage and recycling bins to inform what waste is suitable for composting (Group 2, 2007).
- Incorporate activities to increase awareness and participation in composting (such as those developed by Group 2) to increase awareness and participation in composting into programs that the "Community Assistants" offer. Programs should consist of interactive composting activities that target residence children (Group 2, 2007).

UBC Food Services:

- Emphasize compost marketing and repetition, such as by placing composting propaganda on trays and in high traffic spaces that will aid in increasing customer awareness (Group 8, 2007).
- Explore the implications of employing a surcharge or 'green-charge' similar to those implemented in Totem and Vanier Residences (Group 8, 2007).
- Create marketing strategies to raise awareness of the reusable container discount program currently offered at UBCFS outlets to ensure the program is widely publicized (Group 8, 2007).
- Focus on finding ways to minimize the volume of non-compostable materials, such as through finding alternative replacements for all Styrofoam containers and plastic utensils (Group 08, 2007).
- Install a compost bin by the coffee station at Caffé Perugia opposite the current waste station to facilitate composting of coffee waste products such as cups, sugar packages and cardboard sleeves (Group 8, 2007).
- Actively discourage the use of take-out containers at Caffé Perugia through informative signage and verbal communication that can be articulated by service clerks. It was found that many customers ask for take-out when they plan to eat in the lobby just outside of the restaurant; they could easily use compostable containers (i.e. paper plates and trays) (Group 8, 2007).

- Create uniform composting signage and display at eye level at every composting station in the SUB, taking into account input obtained from focus groups. Increase prevalence of contamination-specific signage (Group 19, 2007).

AMS Food and Beverage Department (AMSFBD):

- While giving customers their orders, food services staff should remind them of the items that can be composted and ask them to sign a “compost pledge” on a voluntary basis at the cashier counter to strengthen composting behaviour (Group 21, 2007).
- Mark all items that can be composted with “COMPOST ME” stickers (supplied by UBC Waste Management) to remind customers to compost (Group 21, 2007).
- Replace all garbage bins in the SUB with three side-by-side bin sorting areas (Group 19 & 21, 2007).

Scenario 8: Develop a strategy for food system sustainability in the South Campus Neighbourhood in UBC’s University Town (Groups 14 & 22)

Objectives:

- To identify opportunities and constraints in the current planning documents, processes, and pattern of development in University Town for community gardens as a means to advance the notion of food system sustainability.
- To propose a strategy for food system sustainability for the South Campus Neighbourhood including implementation actions, budget, resource requirements, and a timeline.

Specific Group Project Objectives:

- To develop a proposal for a community garden at Hawthorn Place, within University Town, that will allow for community interaction, and the cultivation of food (Group 14, 2007).
- To develop a strategy to establish a community garden in the South Campus Neighbourhoods’ Nobel Park, that will allow for urban food production within the community as well as serve as an educational and community building resource and that is concurrent with UBC’s Trek 2010 community outreach goal of modeling UBC as a “responsible, engaged, and sustainable community, dedicated to the principles of inclusivity and global citizenship” (UBC, 2005a in Group 22, 2007).

Central Findings:

Nobel Park:

- Conducted consultations with members of the University Neighbourhood Association (UNA), and Campus and Community Planning (C&CP). Based upon these consultations it was found that a high level of demand exists for community gardens within the UBC community, and as a result a mandate was released for the Usable Neighbourhood Open Spaces (UNOS)⁹ sites that stipulate required space for community gardens, such as at Nobel Park (Group 22, 2007).
- Attended a series of meetings offered to the UBC community to obtain input on the development of UNOS in the new South Campus Neighbourhood. Based upon these meetings it was found that a vast majority of attendees favored the establishment of community gardens in a UNOS (Group 22, 2007).
- Developed a proposal for the development of a community garden in the South Campus Neighbourhoods Nobel Park based upon a previously submitted proposal by the UNA for a community garden in the South Campus Neighbourhood UBC Farm that was rejected. The proposal contains plans for the following areas: 1) Garden and park design (including compost and tool shed design, and community garden layout), 2) Logistics (including proposed committee organization, outline of committee duties, plot-holder agreement, community garden application form, liability waiver form, compost maintenance instructions, energy and water conservation plans, integrated pest management techniques, budget information, educational and

⁹ Usable Neighbourhood Open Space (UNOS) are lands owned by UBC, but controlled by and leased to the University Neighbourhood Association (UNA), where many campus members belong.

community building opportunities, such as plans for workshops, community dinners, festivals, and youth engagement activities) (Group 22, 2007).

Hawthorn Place:

- Conducted consultations with representatives from Campus and Community Planning (C&CP). Based upon these consultations it was found that possibilities existed for community gardens within the current neighbourhoods in the University Town: Hampton Place and Hawthorn Place. Within the neighbourhood, a piece of underutilized land that consisted of grass was found that was classified as Usable Neighbourhood Open Space (UNOS) land (Group 14, 2007)
- Developed a layout plan for a community garden within University Town's Hawthorn Place. The plan consisted of a proposal for a site location (a small 27 x 46 feet piece of land on the corner of West Mall and Larkin Dr.), and suggestions for garden design and layout (Group 14, 2007).

Key Recommendations:

University Neighbourhood Association (UNA):

- Hold a meeting with the different representatives of each neighborhood to discuss the potential of community gardens within their respective neighborhoods (Group 14, 2007).
- Inform current residents of Hawthorn Place that UNOS land within their neighborhood is still under their control, even if it is technically owned by UBC (Group 14, 2007).

Campus and Community Planning:

- Reconsider establishing community gardens at the UBC Farm on a trial 5 year basis. This site could serve as an ideal location to conduct research regarding potential benefits that accrue from community gardens and could serve as a model for establishing future community gardens on campus (Group 14, 2007).

University Neighbourhood Association (UNA) and Campus and Community Planning:

- Create a trial community garden in the SCN based upon Group 22's garden design proposal. The garden should be implemented, either by park developers or by the UNA, in the initial construction of Nobel Park. If the community garden is successful, consider the option of expanding the garden according to demand (Group 22, 2007).
- If the demand for community garden space is excessive, consider the re-proposal of having community garden plots for residents at the UBC Farm (Group 22, 2007).

Outcomes:

In the following section, a selection of accomplishments that emerged from the 2007 term are shared. These accomplishments emerged *collaboratively* from a series of meetings the Project Coordinator held with project partners and other relevant food system actors throughout the summer and fall of 2007 where she presented and discussed a detailed summary of group reports and recommended action plans. As a result of these meetings recommended action plans were either implemented as is, modified to suit the needs of the stakeholders, or concluded that more work needs to be done before implementation. The following summary is not a comprehensive list, and rather contains only a selection of outcomes such as the implementation of new initiatives, and creation of new partnerships.

Initiatives:

- Based upon comprehensive survey results it was determined that expansion of the UBC Farm Market (UBC FM) is strongly desirable among Farm customers and other community members. High market demand was found to exist for more produce and the introduction of cheese products at the market. Detailed proposals were developed to inform and guide the recommended UBC FM expansion.
- Implemented a **seasonal pizza** using items sourced from the UBC Farm. Students developed the pizza recipe in 2006 and sampled it to 150 customers, outlined associated growing plans, marketing tools and cost analysis. The UBC Farm "Roasted Butternut Squash Pizza" was implemented in fall 2007 at UBC's AMS Food and Beverage Department's *Pie R Squared* (PRS) outlet. The squash traveled about 2km to get to

consumer plates. The other main pizza ingredients (feta, gouda, onions, rosemary,) are being sourced locally. The squash produced at the Farm is also being used for a variety of research projects.

- Incorporated **marketing tools** which students developed to showcase UBC Farm products at three AMS outlets in the Student Union Building: **Pie R Squared**, **Bernoulli's Bagels**, and **The Pendulum**.
- **Developed recipes** to incorporate UBC Farm items into *Bernoulli Bagels*.
- Conducted a **waste audit** and implemented a **composting marketing plan** at UBC Food Service's outlet **Caffé Perugia**. Composting at *Caffé Perugia* has now increased and is being composted more correctly. Marketing materials developed by students have been incorporated in the unit including table talkers placed on all tables and posters placed above all compost units.
- Implemented proposals to incorporate **UBC Farm produce into Agora Café's menu** including recipes, sourcing, and marketing materials. Since September 2007 *Agora Café* now places weekly orders with the UBC Farm. Featured items include: UBC Farm eggs (for quiche and breakfast items), UBC Farm blackberries (for smoothies), UBC farm produce (for soups and grilled vegetable sandwiches), and more.
- Incorporated **educational pieces and related activities to increase awareness and education about the benefits of local foods, and related campus food system sustainability initiatives** targeted to the UBC community in a second annual "**UBC Sustainability Fair**". The fair took place on October 3rd 2007 and included over 30 participants who hosted interactive resource booths, a UBC Waste Management "tales of our trash" exhibit, a sustainability film festival, a "parade of lost vegetables" to raise awareness about the Farm and more. Also, a "Keep the UBC Farm Gates Open" fundraiser was held which included two local bands, seasonal food and local drink specials, and prize giveaways. Approximately \$1000 was raised and donated to the Farm.
- Created, organized and implemented an educational event ("Bin Basketball") for UBC's Responsible Consumption Week which took place through March 19th-23rd 2007.
- Worked with UBC Food Services, BC Restaurant and Foodservices Association in partnership with the BC Agricultural Council to implement an **Eat BC! Program**. The Eat BC Program was designed to showcase local BC food and beverages at restaurants and institutions. The Program took place between September 14th-30th, where three UBC Food Service outlets (**Sage Bistro**, **Café Perugia** and **Place Vanier's Dining Room**) featured BC seasonal dishes. Place Vanier featured 70 seasonal BC dishes throughout the two week campaign.
- **Determined a baseline** for UBC Food Services local produce procurement levels, for all outlets excluding residences and franchise operations.
- Identified a list of **local food distributors** and/or **producers** who would be willing and able to sell a selection of BC food products meeting the requirements of UBC food providers, and elicited from them under what conditions they would join in the collaboration.
- Began consultations with UBC Food Services to **incorporate local organic apples** in all UBCFS outlets, excluding franchises.
- Helped inform the development of a **campus community garden** at Hawthorn Place.

Partnerships:

- A new stakeholder partnership was formed with the **Alma Mater Society (AMS)**. Specifically plans were developed for 2008 AGSC 450 students to work on creating food system sustainability targets and initiatives within a proposed "**AMS Lighter Footprint Strategy**" (AMSLFS).

- A new project partnership was formed with the “**Climate Action Partnership**” (**CAP**) - a recently formed participatory partnership involving representatives from the Sustainability Office, UBC Trek Program Centre, Common Energy UBC, and other pertinent campus stakeholders. Specifically, plans were developed for 2008 AGSC 450 students to work on creating food system sustainability targets and initiatives within the proposed “**Climate Action Framework**” (CAF).

Media:

- In October 2007 a selection of UBCFSP successes was filmed by the **Knowledge Network** for their television series: *The Leading Edge: Innovation in BC*. The program focused on eating locally and specifically how eating locally can apply in an institutional setting. Filming included footage from UBC Food Service outlets (*Place Vanier*, *Sage Bistro* and *Café Perugia*), AMS Food and Beverage Department outlets (*Pie R Squared*), and UBC Farm. Broadcast dates were set for April 2008.

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