Expanding the UBC Farm Market

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University of British Columbia
AGSC 450
April 13, 2007

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Scenario 1: Expanding the UBC Farm Market

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I. ABSTRACT

This report will address the social, environmental, and economical feasibility of expanding the UBC Farm Market (FM) in order to account for its increasing consumer demand. Community-Based Action Research (CBAR) provides the foundation for our research, and it is from this foundation that we, Group 7 of the 2007 UBC Food Security Project, have explored the following factors of FM expansion: the type and quality of products that represent consumer demand; the desirability among BC vendors to join the FM; the logistics of insurance, table fees, and parking space; and the overall feasibility of expanding this popular 'niche' market.

Primary methods of data collection include surveys, interviews, and secondary research. Data is then used to make the following key recommendations: that current information on parking and insurance be further pursued; that future surveys include more vendors; and that the FM consider the Market Layout Plan and Vendor Application which are offered in this report. We have concluded our research by stating that FM expansion is feasible from a slow starting pace (i.e., with the addition of one or two vendors during it first year) and with the continued support of its community-wide stakeholders.

II. INTRODUCTION

The UBCFSP is a collaborative, community-based action research project, which aims to develop the social, economic and environmental sustainability of its campus-wide food systems. One of the projects evaluates the sustainability of the Centre for Sustainable Food Systems at the UBC Farm by identifying the barriers that impinge on the success of the Farm, then by exploring ways to improve its future. The UBC Farm is an on-campus, urban agroecosystem, which aims to integrate “sustainable land management and food production practices [to] reveal the possibility of a

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1 The UBC FM is currently the only such market in the Point Grey area.
2 Sustainability is human development and individual values that are cognizant and respectful of the long-term social, economic, and environmental ramifications of resource use and policy change. In other words, sustainability acts locally and thinks globally (Suzuki, 1997).
better, healthier future for urban communities” (UBC Farm, 2007). Apart from building a sustainable local food system, the UBC Farm provides vital educational and networking opportunities to enhance its academic and practical leadership at UBC (Ibid).

Despite the evident ecological and social benefits of the Farm, the rapidly increasing residential population on campus has led to a University Development Plan which, in 1997, designated the Farm as a “future housing reserve” (UBC Farm, 2007). In order to critically re-evaluate this decision, the UBC Farm needs to become a financially independent urban agricultural system that academically serves the university community. One valuable asset of the Farm is the UBC Farm Market (FM), which runs on Saturday mornings and depends on local products (those produced by vendors within the greater Vancouver area) (Ibid). In order to ensure the economic viability of the Farm, our group has assessed the feasibility of a Market expansion which seeks to meet current consumer demand, enhance educational opportunities, and increase the economic independence of the UBC Farm (i.e., independence from the time-consuming process of university grants) (Bomford, personal communication, March 14, 2007).

III. PROBLEM DEFINITION

In recent years, the UBC Farm Market (FM) has been a growing success. The FM is an established farmers’ market where the UBC Farm and local farm vendors sell their products and interact with their community. Currently, the problem at the FM is that demand exceeds supply (Bomford, personal communication, March 14, 2007), which is apparent from the long lineups on market days and for products such as eggs, berries, and fresh produce. A possible solution is to expand the FM by recruiting a diversity of vendors to meet the current demand for specific goods (to be identified in Findings). However, the FM is uncertain about the feasibility of such an expansion; therefore, research is needed to support a final decision.
An expansion at the FM would not only create an impact at a local campus level, but would connect to the broader problems of the global food system. One reason for this is because global food security problems manifest themselves in campus systems (for example, the corn syrup in many processed goods is quite likely derived from genetically modified crops that are funded by Monsanto) (Pollan, 2006). Therefore, expansion of the FM will also benefit the economical, environmental, and social linkages with its global food system. One of the biggest problems in the world today is incremental loss of habitat (M’Gonigle & Starke, 2006). An expansion at the FM could increase support from the university and community, therefore, defending the UBC Farm from pressures to develop it as market housing (Ibid), thus preventing the loss of habitat.

Urban regions increasingly rely on food that travels over vast distances, produced on an industrial scale, and arrives in a highly processed form (M’Gonigle & Starke, 2006). Recently, the concern for food security is the need to increase locally grown food by local residents (Ibid). By expanding the FM and supporting local farmers, we will increase accessibility and availability of local foods, thus sustaining the environment by decreasing food miles and increasing locally grown food. Furthermore, the FM could bring the producer-consumer relationship closer, which is significant to the sustainability of the food system, as the way we purchase and eat represents our most profound engagement with the natural world (Pollan, 2006). Lastly, an expansion could lead to an increase in education and research opportunities for students and for the community. The increased knowledge within individuals leads to a better understanding about the sustainability of the food system, which is important in maintaining the health and well being of our community and its environment.

IV. VISION STATEMENT AND VALUE ASSUMPTIONS

Before beginning the research process, our group members shared their perspectives on the 7 guiding principles that capture the UBCFSP's Vision Statement for a more sustainable food
system. Through our reflections, our group realized that it shares a weak anthropocentric paradigm. We agree that human wellness is more crucial than that of other organisms, however in order to support future human well-being, the maintenance of a healthy environment is a prerequisite. Weak anthropocentrism is one way to promote the mutual flourishing of human and non-human nature.

The UBCFSP Vision Statement support sustainable food systems, or those in which the growth and development are balanced by the need to protect and replenish cultural, economic, social, and environmental resources. We strongly feel that our values are encompassed in the 7 guiding principles, balancing all dimensions for the development of a sustainable food system. We envision the UBC Farm Market to support economic demands that are environmentally 'aware', social interaction, locally produced goods, and nutritious food options. While supporting these human needs, we also have strong intentions to support non-human nature through agroecosystems and the developmental growth of the UBC Farm.

UBC has many characteristics of a sustainable community, yet we must carefully plan to build on what now exists to ensure a healthy environment for future generations. A sustainable food system at UBC is fulfilling our responsibility as participants in the broader global food system. Not only is the UBC Farm and campus–wide food system inextricably linked to global food problems, but it resonated with the principles of the Vancouver Food Charter. Adopted by Sam Sullivan and his Council, the Charter “promotes education, celebration, and real project for a healthy economy, healthy ecology, and healthy society” (City of Vancouver, 2007). The Charter also encourages regional farmers to sell more of their goods at local markets – a role which can be fulfilled by the expansion of the FM.

V. METHODOLOGY

The overarching question which guided our research was: What is the feasibility of UBC Farm Market expansion? Of course, this topic was address through a multitude of smaller research
questions which included the following topics: the ethics of food and food production, the type of
goods to be offered, parking issues, considerations for insurance, guidelines for vendor inclusion,
legal regulations, and FM ground layout. The following information addresses central questions
answering who, what, where, when, and how.

Our surveys, in-person interviews, and secondary research were performed in lieu of
Community-Based Action Research (CBAR). CBAR rejects the marginalizing consequences of
academic jargon, and it fosters a research climate in which previously disparate groups can work
harmoniously toward common goals (Ibid). By examining data, explaining data, and then
recommending action, CBAR promotes change in a continuous cycle of action and investigation
(Ibid). These aspects of CBAR were carried out in our interviews with producers at YLFMS’ Wise
Hall Winter Farmers’ Market (WHWFM), and by maintaining harmonious relationships between
YLFMS Operations Manager, Roberta LaQuaglia, the AGSC 450 Teaching Team, and various
students groups such as ourselves. As a result, CBAR abetted the cooperation between the UBC FM
and YLFMS in what would have otherwise been a competitive playing field.

In-person interviews were useful in determining many factors that may either hinder or
support FM expansion. Supplementary information\(^3\) pertaining to YLFMS was provided by
LaQuaglia through phone interviews and e-mails. Current information regarding the economic
status of the Farm was provided by Mark Bomford, the UBC Farm Program Coordinator.

In effort to determine the feasibility and desirability of a proposed project as suggested by
Bomford, we have surveyed the interest of involvement and participation by circulating a letter of
introduction (Appendix A) to various Food, Nutrition, and Health (FNH) instructors\(^4\) and other

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\(^3\)This information refers to a list of vendors who YLFMS has failed to accommodate in the past, and YLFMS’ current insurance policies.

\(^4\)Susan Barr, Gail Hammond, Zhaoming Xu, Debbie Zibrik, and Candice Rideout
Land and Food Systems (LFS) members\(^5\), and by creating and circulating a survey (Appendix B) for students to determine the level of interest among UBC students. The student survey was circulated by Cathleen Nichol and Karol Traviss, through forwarding the survey to the entire e-mail list within the LFS faculty and the Dietetics program, respectively.

The UBC Farm Marketing Coordinator, Amy Frye also provided us pertinent information regarding table fees and parking spaces during one of the “AGSC 450 Guest Speakers Series” sessions. Additionally, UBC Parking and Control Services, TRIUMF and FPInnovations Paprican were visited on April 4\(^{th}\), 2007 to obtain information about the availability of their private parking lots for weekend use. Furthermore, participatory observation\(^6\) was carried out at the WHWFM on March 4, 2007 in order to better understand the consumers' experience, and to use that understanding to build informed recommendations for the UBC FM.

Secondary research\(^7\) formed a platform of knowledge from which primary research (that which pertains to our case at hand) could be carried out. This platform included past AGSC 450 reports from Group 15 and 28 (2006), the Sauder School of Business report (2005), YLFMS and UBC Farm websites, and academic texts. By reviewing this background information, we were better equipped to make linkages between real-life situations and our academic studies.

A Consumers’ Survey (Appendix C) was drawn up by a subgroup of UBCFSP Scenerio 1 members and the generous feedback of UBC Professor Stephen Peplow. It was created in order to gain insight into the opinions of the UBC community as they regard the operations and goods of the UBC FM. For approximately one week in March of 2007, the Consumers’ Survey was electronically distributed (via SurveyMonkey.com) to persons on the University Neighbourhood Association (UNA), UBC students taking online “WebCT” courses, and customers at the UBC

\(^5\) Karol Traviss and Cathleen Nichols

\(^6\) *Participatory observation* is defined by observing a situation and/or group in which the participant is also engaged.

\(^7\) *Secondary research* refers to the information derived from textbooks, articles, surveys, and websites.
Food Co-op Sprouts. This survey was helpful in identifying desired goods, clientèle demography, and FM scheduling preferences. A Vendors’ Survey (Appendix D) was also created by a Scenario1 subgroup in order to gauge the interest of various BC vendors in selling their product(s) at the FM. It was distributed by two methods: e-mails and telephone. This survey was particularly helpful in identifying a list of vendors who are interested in joining the FM, types and quantity of products they can provide, desired market hours, and the factors contributing to the inability to join the FM.

Survey research was quantitative and qualitative, both of which were reflected in the style of questions posed. The majority of survey questions in the Consumers’ Survey were quantitative in nature; thus, participants could respond to a question by ranking it, and these numbers were calculated to produce averages and bar graphs for visual analysis. The Consumers’ Survey was also qualitative in that participants had the option of providing their own responses to some questions. On the other hand, the Vendors’ Survey was designed to be strictly qualitative in that all questions were posed to derive participants’ responses which were written in their own words. Each survey was analyzed separately, and the findings of each survey were then analyzed in comparison to one another.

VI. FINDINGS

A. Policies and Regulations

Greater Vancouver Regional District (GVRD) is responsible for the planning and administrative authority of the UBC campus. Since 1997, objectives and polices about future development at UBC have been outlined, as a bylaw of the GVRD, in the UBC Official Community Plan (UBC OCP) (GVRD, 2006). The UBC OCP sets guidelines for land use, green space, community service and transportation to guarantee balanced growth within the UBC community.

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8Provisions of the Municipal Act and the University Act were used in preparation of the UBC OCP and were prepared through consultative process involving the GVRD, UBC, interest groups from both on and off campus, and the public. It applies to the entire campus and two foreshore lots in Pacific Spirit Park.
(Ibid). Expansion of the UBC FM falls under the UBC OCP goal of building a responsible community that “contains a diversity of employment, recreational, learning, cultural, and housing opportunities [...] in a manner and setting that promotes a sense of community” (Ibid). Provincial and Federal regulations that focus on the sale of food items primarily focus on health and safety (Health Canada, 2007).

**B. Consumers’ Survey**

The Consumers’ Survey was completed by 540 participants, 38% of whom were undergraduate students. 47% of the participants indicated that they visit the FM less than five times per market season (from June to October). Desirable goods, or those which participants were (on average) more likely to be “very interested” in purchasing, included fresh produce, cheese, baked goods, and prepared food items. Less desirable goods, or those which participants were (on average) more likely to be “not interested” in purchasing, included seafood and craft items. Interestingly, meat and services (such as coffee, smoothies, and massage) were almost evenly distributed across “not at all” to “extremely” desirability scales. 80% of participants indicated that they would indeed continue purchasing from the UBC FM if new vendors promoted local products (produced and grown within BC) that were not necessarily organic. As they relate to FM goods, the following factors were more likely to be ranked as “extremely important” than anything less than such: high quality and freshness, in season, grown in BC, free of pesticide residues, and free of genetic modification.

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9 Specific acts include *The Food and Drugs Act* (Canada), which “Under the Act, no person may sell any food that has in or on it any poisonous or harmful substance, is unfit for human consumption, consists in whole or part of any filthy, putrid, disgusting, rotten, decomposed or diseased animal or vegetable substance, is adulterated, or was manufactured, prepared, preserved, packaged or stored under unsanitary conditions. No person shall label, package, treat, process, sell or advertise food in a manner that is false, misleading or deceptive or is likely to create an erroneous impression regarding its character, value, quantity, composition, merit or safety. Under the Act the minister may enact specific regulations cover labeling, packaging, conditions of sale and the use of substances for ingredients. The Minister may also set standards concerning the quality, purity, concentration, strength, potency, manufacturing methods, preparation, preservation, packaging, storage and testing of foods, drugs and cosmetics.” (BC, Ministry of Agriculture, Food and Fisheries, 2004).
As expected, 82% of participants were willing to pay a higher premium (20 to 30% more money) for organic, local, and sustainably-produced goods. The majority (68%) of participants indicated that Sunday (9am-2pm) is a preferable FM day; however, if the FM were to be held on a weekday, Friday (3-7pm) is second most preferable day. A nearly 50-50 split exists for participants who are interested in attending FM activities on a regular basis (i.e., barbeques, face painting, and other community activities).

Of the 540 Consumers’ Survey participants, 146 qualitative responses were provided. In a question regarding what consumers are eager to see at the FM, 15/47 noted an interest in community events such as educational activities, workshops, volunteer opportunities for teens, and general community 'outreach'. Other qualitative responses were insignificant, meaning that their comments on particular topics were too few (e.g., 2/147) to be worth further consideration at this time.

C. Vendors’ Survey

10 out of 13 vendors we contacted completed the Vendors' Survey. The vendors who participated in the survey include: Moonstruck Organic Cheese, Greenhill Acres, Wild Seafoods, Goat’s Pride Dairy, Goldwing Ostrich Products, Forstbauer Natural Food Farm, Richmond Specialty Mushroom Growers Co-op., Little Qualicum Cheeseworks, Ambercott Acres, and Windy River Acres. Of these vendors, Goat’s Pride Dairy and Windy River Acres indicated strong interest in joining the UBC FM. Greenhill Acres and Wild Seafoods expressed conditional interest in joining the FM: they both indicated that they would consider joining the FM only if it operated on Saturday evenings.

80% of the vendors did not show any interest in joining the FM. 75% of these vendors indicated that the main reason for this lack of interest is their current commitment to other Saturday markets. This finding correlates to the general observation we attained from casual conversations.
(participatory observation) with vendors at the WHWFM. 33% of these committed vendors stated that lack of labour is a factor which hinders them from attending additional farmers’ markets. However, when asked about their interest in having volunteers help them during FM hours, these particular vendors strictly opposed to this idea. On the other hand, 50% of the vendors made no comment on this question, creating non-response bias (defined on page 15). As indicated by 38% of the uninterested vendors, the long traveling distance is another barrier to joining the FM.

Other findings that were helpful in developing a table layout include appropriate stall sizes and a reasonable price to be a vendor at the FM. We found that 50% of the vendors utilize 10’X10’ stalls, and that 60% believe that $25-$30 is a reasonable starting rate.

**D. UBC Farm Market Layout Plan**

For most Farm Markets, “a single or double linear arrangement [of vendors] encourages the customer to walk from one end to the other” (BCFM, 2007), which directs consumers to visit each vendor. This creates a direction for customers to proceed, which allows them to comfortably flow with the traffic instead of being confused and lost in the market space.

Stall size is an important component of the FM layout. A general guideline for minimum stall width is “the width of a car with the side doors open” (MFMA, 2007). Generally, most farmers’ markets, including YLFMS, offer stall sizes with the dimensions of 10 ft. wide x 10 ft. deep. Another component to consider is the space needed for vendor parking and vehicle access. Thus, there should be enough “room behind or in front of it to park one vehicle” (PCFM, 2007). These factors have been taken into consideration during the development of our Farm Market Layout Plan (Appendix H).

**E. Insurance Policy/Table Fees/Parking**

FM vendors are currently uninsured. As the FM expands it would be advisable for vendors to have insurance coverage in order to avoid a lawsuit against the FM in the case of injury, illness,
or death (Frye, personal communication, March 14, 2007). After several e-mail correspondence with LaQuaglia (personal communication, March 2007), we learned that YLFMS is paying approximately $270 for insurance per year, per market. LaQuaglia (Ibid) also informed us that their insurance is purchased through The Co-operators, via the BC Association of Farmers Markets (BCAFM), and that they receive a group rate because of this membership (Ibid).

The current table fee is $10 per day, and there are about 8 parking spaces outside the gate at the FM (Bomford, personal communication, March 14, 2007). At the moment, many customers are parking on the sides of the road (illegal parking) (Ibid). For this reason, we researched the availability of two different parking lots that are located on South Campus: Wesbrook South Campus parkade and FPInnovations Paprican, all of which are legal options within 1 km distance from the UBC Farm. Bomford (personal communication, March 14, 2007) indicated that Wesbrook South Campus was no longer available to the public. However, Nikki Roussanidis, the Office Manager of FPInnovations Paprican, informed us that Paprican’s top lot (31 spaces) could be rented out for approximately $100 per day. If more parking spaces are required, additional 80 parking spaces may also be made available with an increase in price (Roussanidis, personal communication, April 4, 2007).

**F. Research Opportunities at the Farm**

We propose a research project as an educational component which will contribute to the expansion of the UBC Farm Market which involves FNH students, faculty members, and UBC Farm Staff. In the course of this project, FNH students would become involved in various educational activities, such as conducting a nutritional analysis, creating recipes for the UBC FM Garden products, and hosting educational booths for FM customers.

Based on responses from the various FNH instructors, some of them commented that this is a promising project; however they are overcommitted with their current endeavors to take on new
initiatives (Barr, Traviss, & Xu, personal communication, 2007). Gail Hammond (personal communication, March 26, 2007), the course instructor of FNH 250: Nutrition Concepts and Controversies, responded that she has developed a similar project for her summer session students that involves the nutritional analysis of the UBC Farm products. Cathleen Nichols (personal communication, March 20, 2007), the UBC Land and Food Systems Community Partnership Coordinator, has promptly responded with her full support and expressed her eagerness to promote this project idea to her AGSC 496: Career Development students. She has indicating that she would consider our project proposals as part of her AGSC 496 students’ completion of their 80-hours of volunteer requirement. According to Dr. Z. Xu (personal communication, April 2, 2007), the Associate Professor of FNH 351: Vitamins and Minerals, it would be difficult to implement this project because of its inter-disciplinary nature and financial implications. Lastly, the majority of surveyed students indicated that they are interested in participating in FM research through a credit-granting course.

Bomford (personal communication, March 2007) has stated that despite the fact that FM demand surpasses supply; the current situation is that the Farm is just breaking even financially. One aspect of this economic struggle is that the Farm is losing money each year on fresh veggies, signifying that there is a need for 'value added' goods. Less popular items that are in need of “value-added” transformations include: bok choy, kale, cabbage, fennel, green peppers, cucumbers, and hot peppers (Ibid). Furthermore, Bomford (Ibid) believes that the Farm would benefit from collaborating with the UBC Sauder School of Business, particularly in marketing newly developed UBC Farm processed goods. He considers that it would be beneficial for UBC FM expansion purposes to have specific marketing projects which focus on the promotion of UBC Farm goods which could have value-added qualities (Ibid).
VII. DISCUSSION

A. Limitations and Sources of Error

Consumers' Survey findings cannot be applied to the UBC Farm Market consumer population at large. This is because under-coverage of all potential community groups of the FM consumer population occurred due to the inaccessibility of a complete database of all FM customers (Moore & McCabe, 2006). In addition to this initial failure of evenly distributing the survey to all groups of the FM consumer population, the majority of participants (38%) were undergraduate students.

Response bias can occur when the way in which a question is phrased skews a participant's response (Moore & McCabe, 2004). The Consumers' Survey asked how important various factors are for the Farm Market to have. In this question, we grouped "quality" with "freshness" into one factor, when in fact there are other ways that consumers interpret "quality" (i.e., careful packaging). Response bias can also occur when a participant feels morally "bad" about responding truthfully, despite the fact that responses are kept anonymous (Ibid). In particular, this bias may have affected a Consumers' Survey question pertaining to how important certain qualities of food are when shopping at the FM. And finally, non-response bias occurred due to survey participants' choosing not to answer particular questions, thus leaving us unable to draw inferences from that particular question.

In the process of conducting the Vendors' Survey, we faced one major limitation: the inability to obtain a list of vendors prepared by YLFMS Roberta LaQuaglia in time to offer our survey to more available vendors (as this list of vendors is comprised of producers who are not involved in any Farmers’ Market hosted by YLFMS). However, this list was not retrieved from Roberta until one week remaining from the deadline of the 2007 UBCFSP. Thus, respondents were limited to 13 vendors that are already attending the other YLFMS Markets.
B. Findings from the Consumers’ and Vendors’ Surveys

The two vendors who are interested in joining the FM offer goods which meet present consumer demand at the FM. Goat’s Pride Dairy sells organic goat cheese, which is one of the types of goods that survey participants were “very interested” in purchasing. It also sells farm-fresh eggs, which can mitigate the steep demand for farm-fresh eggs at the FM (Frye, personal communication, March 14, 2007). Windy River Acres sells garlic; seeing as produce was the most desirable good of the Consumers’ Survey, garlic would be a feasible option. Based on the current unavailability of contacted vendors, the expansion of the FM may be feasible to a small extent through gradual vendor inclusion (i.e., one or two vendors the first year, gauging the situation from there).

C. Insurance Policy, Table Fees, Parking, and Market Layout

It is imperative that the FM implement a policy for vendor liability insurance in order to prevent the FM’s liability (monetary compensation) for customer illness or injury related the FM. If the FM purchases liability insurance from The Co-operators, it will not be at the same discounted group rate as offered to YLFMS; thus, we expect that the UBC FM would pay at least $270 per year, per market for an insurance plan similar to that of YLFMS. Yet seeing as that Market expansion will likely not include more than 15 vendors (Bomford, personal communication, 2007), purchasing one unified policy may be more of a ‘juggling act’ than simply requiring vendors to provide proof of coverage. Furthermore, table fees will be charged on the basis of two sizes: “standard” (10 ft. x 10ft.) or “shared” (10 ft. x 5 ft.), costing $20 per day or $10 per day, respectively. The latter option would require a vendor to share a standard stall space with another vendor (either from UBC FM or from elsewhere). These prices were chosen because they reflect the majority (60%) of Vendors’ Survey participants who indicated that $25 - $30 per stall, per day is an equitable price. Seeing as ours is a new and (possibly) financially insecure business venture, we have slightly reduced prices for new vendors. And lastly, vendors will be responsible for providing
their own tables which fit into their registered stall space due to the lack of additional tables owned by the UBC FM (Bomford, personal communication, 2007).

With expansion comes the need to accommodate increased customers and increased parking areas. After examining all the parking lots on South Campus, Paprican is the only location that is both within walking distance and available for rent (Appendix E). Roussanidis (personal communication, April 4, 2007) stated that the FM should contact her to draw up an official agreement and discuss additional pricing options. Despite its ideal location, Paprican’s rate of $100 per day for 31 spaces is too costly. As Bomford (personal communication, March 14, 2007) stated, “the Farm is just now breaking even financially” and noted further that the FM’s economic independence is integral in sustaining the UBC Farm. Therefore, the FM may need to pursue cooperative negotiations with Roussanidis in order to reach a more reasonable price. Considering that Paprican may be grappling with the ethics of its environmental implications, negotiations with the UBC FM could improve upon its public status in the campus community. These negotiations could hinge on the pro-bono nature of offering discounted parking rates to an environmentally conscious business endeavor (the UBC FM).

The organization and layout of any farmers' market greatly influences the frequency of future visits (BCFM, 2007). Having an organized market helps vendors establish their uniqueness by mixing up the stalls throughout the market to ensure that there won’t be vendors selling the same products right beside each other. Thus, a FM Market Layout Plan (Appendix H) has been established after considering the figures previously discussed in Findings.

**D. Research Opportunities at the Farm**

The proposed project involving FNH students, faculty members, and UBC Farm staff will elicit several benefits that are consistent with the expansion of the UBC FM such that participants can “convert the Farm into a sustainable enterprise [,] creatively encourage and support meaningful
student participation, [and] develop and implement Farm programs and project that embody and support the principles of health and sustainability” (UBC Farm, 2007). In terms of educational benefits, this project will provide FNH students with a hands-on learning opportunity. As for social and financial benefits, this project aims to raise public awareness of the importance of healthy, sustainable food choices by promoting local and seasonal UBC Farm products. Moreover, the combination of student-driven educational programs with (what are currently) low-profit Farm veggies will support the economic sustainability of the FM.

The UBC Farm would benefit from the collaboration of Food Resource Economics (FRE), Food Market Analysis (FMA), and Sauder School of Business (SSB) students as they could conduct on-site market analysis, such as surveying customer and vendor feedback or generating quality reports. This particular task will serve to ensure that the desirability and demands of FM products are being met, as well as to identify other initiatives that may be useful for FM expansion.

**Limitations and Challenges:**

At this point of our research, some of our main concerns in making this project a reality include: the willingness of faculty involvement and the devotion of their time; students’ compliance and participation of the project; the proposal to make this project into a credit-granting program for participating students; and available funding. Although the student survey results demonstrate that there is definitely interest amongst students, we understand that this is a preliminary proposal and that a maturely developed proposal would be required to make this vision a reality. We recommend that additional surveys to be provided on a larger scale in order to more thoroughly determine the feasibility and desirability of this project proposal.

**VIII. Recommendations**

**A. To the UBC Farm Market Staff**

Based upon the Consumers’ Survey results, we recommend that newly integrated products
and their management practices be ‘sustainable’ to the best of their abilities. Rather than creating a system that classifies vendors as sustainable or not, we are exploring alternative ways to help the UBC FM ensure that potential vendors have sustainable policies. This includes: getting to know vendors on a personal level via calls or visits before bringing them on board; and avoiding the rigid mainstreaming (i.e., McDonaldization) of sustainability criteria, as this may discourage potential vendors who are trying to convert to more sustainable practices ‘one step at a time’ (Ritzer, 2004). Thus, a careful review of Vendor Applications (Appendix F), as well as personal contact with a potential vendor, should be completed before vendors are formally invited to participate in the FM.

If a vendor is unable to prove\textsuperscript{10} that his or her production methods are sustainably managed, their situation should be evaluated \textit{within the context} of their current abilities and future goals. As a sustainably-minded food producer, gauging a local economy, stewarding a sustainable agroecosystem, and contributing to a cohesive community is a balancing act (Berry, 1995). Thus, it would be beneficial for the UBC FM to exhibit patience and flexibility when working with vendors who are in a transitional stage (i.e., converting food producing practices from a conventional model of economic ‘efficiency' to sustainable practices which consider the social, ecological and economic well-being of one's local community and its global linkages).

Vendors who are interested in joining the UBC Farm Market should be required to complete a Vendor Application (Appendix F). To reduce paper waste, the application should be made accessible through a link on the UBC Farm website. These forms will provide a basis for vendor inclusion, as well as match the manner of food production with the ideologies and ethics of the UBC FM.

We also recognize that an application process will require human capital expenses to be funded by the FM. An application fee could be instilled to offset such costs. Human capital costs

\textsuperscript{10}Please refer to Section 7 of the Vendor Application in Appendix VI.
run between $12 - $20 per hour (Wright, personal communication, April 2007), and we have estimated that \( Z \) minutes will be devoted to reviewing one Vendor Application. Thus:

\[
Z \text{ mins} = \frac{Z}{60} \text{ hrs} \rightarrow (Z/60) \times ($Y/\text{hr Average Capital Cost}) = \text{Processing Cost Per Application}
\]

**Formula with Estimated Variable Values:**

\[
30 \text{ mins} = 0.5 \text{ hrs} \rightarrow (0.5 \text{ hrs}) \times ($16/\text{hr}) = $8.00 \text{ Processing Cost Per Application}
\]

With these particular estimations, an application fee of roughly $10 - $15 should be required of all applying vendors. The additional $2 - $7 per application can be used as “application revenue” to support other FM operations.

If the FM and its customers show great interest in contacting and recruiting a particular vendor, we recommend that the FM invite a vendor 'on board' with a formal letter of invitation (Appendix G).

**B. To the Future AGSC 450 Students**

We recommend that future AGSC 450 students expand upon our desire to conduct a Vendors' Survey with the available vendors suggested (yet not followed up) by Roberta LaQuaglia (Appendix G). By evaluating the results of future surveys and comparing it to consumer demand, future students can better determine the feasibility of FM expansion. We also recommend that future surveys reduce ambiguities by clearly defining concepts like *sustainability* and *local*, as this will reduce response bias. Based on the present preoccupations of vendors who were contacted through the Vendors' Survey, FM expansion may be feasible to a small extent through gradual vendor inclusion (i.e., one or two vendors the first year and slowly expanding from that point forward).

In Appendix H, the diagram shows a potential layout of how the UBC FM could be arranged at the UBC Farm. The layout of the UBC FM is planned to ensure that there is a clear direction and
flow for the customers to shop. The information booth at the front of the Market clearly helps direct the traffic towards the vendors and serves as a starting point for the Market.

It would be ideal for the FM to make insurance mandatory for all vendors. This can be achieved by two suitable options. Firstly, have the UBCFSP pursue membership with the BCAFM so they may be eligible for the discount insurance rate, and have future AGSC 450 students pursue an insurance quote with The Co-operators and by formally gathering the necessary information (Appendix I). Secondly, have vendors purchase insurance independently and have the FM continue its coverage through UBC. For this option, the FM may benefit from following YLFMS’ policy in the Vendor Handbook, which requires vendors to have a minimum of $1 million liability insurance coverage with the UBC Farm named as an insured (YLFMS, 2006). Whichever solution is more economically viable for the FM should be selected.

It is evident that renting a parking lot on South Campus will be beneficial to the FM’s expansion. However, since the FM does not have many financially viable options, they can contact Nikki Roussanidis (Appendix J) to explore any options in price reduction. This can be achieved through joint meetings between FPInnovations Paprican and the UBC Farm and/or the UBCFSP.

**C. To the AGSC 450 Teaching Team**

In order to enhance public education, the UBC FM could offer educational workshops that support the active participation of children while their parents are shopping. This endeavor is beneficial to the UBC community in two ways: (1) it increases education and awareness within young learners in the community; and (2) it provides an incentive for parents to visit the UBC FM, which helps secure customer flow. The participants of the proposed educational programs could develop recipes which use the less popular fresh Farm veggies. Students could learn the economical and nutritional aspects of such recipes, and the FM could receive additional revenue from the transformation of its fresh veggies into value-added goods.
IX. CONCLUSION

The expansion of the UBC Farm Market requires the thoughtful consideration of many campus and community stakeholders. From on-campus housing developments to the ecologically destructive nature of dominant global food systems, we believe that the expansion of the UBC FM will create positive learning opportunities for its campus community. With this in mind, we have made the following key recommendations: that current information on parking and insurance be further pursued; that future surveys include more vendors; and that the FM consider the Market Layout Plan and Vendor Application which are offered in this report. We believe that FM expansion is feasible from a slow starting pace (i.e., with the addition of one or two vendors during its first year) and with the continued support of its community-wide stakeholders.
X. Works Cited


XI. APPENDICES

Appendix A. Research Letter to LFS Members

My name is (Name of Group Representative), and I am currently a senior Nutritional Sciences student who is in the process of researching for our AGSC 450 UBC Food System Project (UBCFSP). Our project focuses on the expansion of the UBC Farm Market. As one of the components of this project, we are examining current and potential research opportunities at the UBC Farm that would benefit the educational aspects of the UBC Farm Market.

As a recommendation to the UBC Farm and the Center of Sustainable Food Systems, we propose collaboration between the UBC Farm and FNH students and faculty members. More specifically, we propose that Dietetics students and faculty members offer their expertise and time to educate the public about their food. For example, the participants can assemble a nutritional analysis of the products available at the market, create recipes with nutritional breakdowns for customers at the market, and provide workshops or information booth to teach consumers about serving sizes and other nutritional information.

Using the educational component as a promotional tool to help promote the UBC Farm products to the community, we feel that this project would be mutually beneficial to the UBC Farm Market, FNH students and faculty, and the community at large. Moreover, this would provide an opportunity for consumers to learn about the nutritional information of the products, as well as the importance of healthy and sustainable food choices. We also perceive this opportunity to be a valuable learning and research experience for everyone involved.

We are currently examining the feasibility of this proposed project by surveying the interest of various parties, and we hope that this project will benefit the expansion of the UBC Farm Market.

Please feel free to provide any feedback with regards to this project proposal by letting us know whether you would be interested in becoming involved as a sponsor or supervisor. If this project is approved by the UBC Farm, we would expect to need your assistance during the summer months of 2007, or those of 2008.

Thank you very much for your time and consideration.
Sincerely,
(Name of Group Representative)
AGSC 450 UBCFSP Student Investigator

Appendix B: Survey for Students Regarding Research Work

1. This survey is being administered to provide data for the UBC Food System Project, a multi-year study seeking to improve the sustainability of the UBC food system.

If you have any question please feel free to contact the Course Instructors and Principal Investigator (please see below) or Liska Richer, Co-investigator and course Sessional Instructor. Thank you very much for your cooperation

By responding to this survey, you are consenting to have your information be used as data in this study.
   o Agree
2. Please identify yourself (check all that are applicable):
- Student of Land and Food Systems
- Will be completing an Undergraduate Degree
- Will be completing a Graduate Degree
- Year 1
- Year 2
- Year 3
- Year 4
- Year 5
- Dietetics Major
- Food Marketing Analysis Major
- Food Sciences Major
- Food and Nutritional Sciences Double Major
- Nutritional Sciences Major
- Global Resources System Major
- Other: ______________

5. If you were interested in participating, which of the following activities would you like to participate in? You may select more than one option.
- Conducting a nutritional analysis of UBC Farm Market Garden products
- Creating recipes for UBC Farm Market Garden products
- Hosting on-site educational and/or information booths for customers at the UBC Farm Market Garden

6. Do you think that FNH students participating in this research project would have the opportunity to enhance their learning experiences?
- Strongly Agree
- Mildly Agree
- Neutral
- Mildly Disagree
- Strongly Disagree

7. In the previous question, if you agree or disagree, please state your reasons and/or thoughts:

8. Do you feel that FNH students’ participation with the UBC Farm have been underrepresented?
- Yes
- Somewhat
- No
- Unsure
- Other: __________

9. Please indicate any additional comments and feedback with regards to these potential research opportunities

Appendix C. Consumers’ Survey

1. How often do you visit the UBC Farm Market between June and October?
- Frequently
- Occasionally
- Infrequently
- Other (please specify)

2. Which of the following do you consider yourself to be? *Check all that apply*
- UBC undergraduate student
- UBC graduate student
- UBC staff member
- UBC faculty member or instructor
- UBC alumni
- University resident
- Not directly affiliated with the University
- Other (please specify)

3. Please indicate how interested you would be to purchase:
(Options: Produce, Meat [beef, chicken, etc.], Seafood, Cheese, Baked goods, Prepared food [jams, sauces, ready-to-eat food, etc.], Crafts [jewelry, pottery, cards], Services [coffees, smoothies, massage])
(Level of Interest for Each Option: Not Interested, Mildly Interested, Somewhat Interested, Very Interested, N/A)
4. Farmers' markets provide local products, not all of which are organic. Would you continue purchasing from the UBC Farm Market if other vendors were local but not organic? Yes, No, or N/A
5. Please rate the following factors on how important they are when shopping at a farmers' market. Factor: Convenience, Quality/Freshness, Unusual/diverse varieties, quantity from which to choose, Price, In season, Grown at the UBC Farm, Grown in the Lower Mainland, Grown at the UBC Farm, Grown in the Lower Mainland, Grown in BC, Free of pesticide residues, Free of genetic modification, Has organic certification (Level of Interest for Each Factor: Not Important, Somewhat Important, Very Important, Extremely Important, N/A)
6. Are you willing to pay a higher premium (e.g. approximately 20 to 30% more) for higher quality, more sustainable, local and/or organic products? Yes, No, N/A
7. Our Farmers' Market is currently held on a Saturday. We are considering changing the day of our Market in order to accommodate our vendors. What other days would you like to come: *Please check all that apply* Mon (3-7pm), Tues (3-7pm), Wed (3-7pm), Thur (3-7pm), Fri (3-7pm), Sat (9am-2pm), Sun (9am-2pm), Other (please specify)
8. Would you be interested in attending activities at the UBC Farm Market, such as barbeques, face painting, etc. on a regular basis? Yes, No, N/A

**Appendix D. Vendors' Survey**

1) Are you aware that the UBC Farm hosts a Farmers Market on Saturdays?
2) At the farmers markets you are currently attending, how much of your produce are you able to sell? (Kg, fraction of total produce?)
3) Are you interested in coming out to the UBC Farmers Market to sell your products? Why or why not?
4) Presently, the UBC market is held on Saturdays from 9 am to 1 pm. Does this time slot work for you? If not, what day would work best for you?
5) Which products and what volume do you estimate you could supply to the UBC Farmers market?
6) What is the size of the stall you are utilizing at the farmers market you are currently attending? Small (6X7)? Medium (10X20)? Large (16X20)?
7) If there were volunteers available, would you be interested in having them help you during the market hours?
8) Do you think $25 - $30 is a reasonable starting rate to be a vendor at a farmers market?

**Appendix E. Map of FPIInnovations Paprican Parking Lot**

Figure 2. Map of UBC farm and FPIInnovations Paprican Retrieve April 7, 2007 from: http://maps.google.com/maps?q=6182%20South%20Campus%20Road%20Vancouver%20BC&hl=en
Appendix F: Vendors Application Form and Code of Ethics

Section 1: Personal Information
Company Name: ____________________________ Vendor’s Name(s): ____________________________
Mailing Address: ____________________________ City/Province: ____________________________
Postal Code: _______ Cell# _______ Home # _______ Fax: _______
E-mail: ____________________________ Website: ____________________________

Section 2: List All of Your Products
Please include name and a brief description of your products.
1. __________________________________________ (note. provide more lines)

Section 3: Food Safety Plan (applies only to prepared food items)
To abide by Vancouver Coastal Health Authority food safety regulations, please complete the following
food safety plan for each prepared food item.
Address where food is prepared: ____________________________
Phone # where food prep is done: ____________________________
2. List prepared food items you plan to sell at the UBC Farm Market. (note. provide more lines)

Section 4: Participation Dates Please circle the Sundays that you plan to sell your products at the FM.
June 3 10 17 24
July 1 8 15 22 29
August 5 12 19 26
September 2 9 16 23 30
October 7 14 21 28

Section 5: Code of Ethic It is important for all vendors to adhere to the following ethical considerations or principles when partaking membership at UBC Farm Market.
- The UBC Farm Market shall operate as a service to the community that will support the learning opportunities of local vendors while abiding in ethical manner.
- UBC Farm Market should select vendors who strive to produce and sell products that are of interest to the consumer population.
- Vendors must reflect principles of honesty and fairness when dealing with UBC Farm Market staff, other vendors and the public.
- Vendors must following fair business practices.
- Vendors can only sell products that they themselves have produced and can only sell products that are permitted to be sold at the UBC Farm Market. These products need to be of high quality and deny any sort of health risk to the consumer.
- Each vendor must comply with local bylaws and regulations.
- All vendors must undertake the obligation to insure that other vendors, customers and the public in general are in an environment that is free of harassment, inappropriate language and/or physical actions directed from a vendor to a consumer or a from vendor to vendor.
- It is important that vendors remain responsible for their allocated stand, insuring that cleanliness is maintained, as well as respecting the area that is provided to them for the selling of their products.
- Not complying with the following ethical considerations may result in being discharged from participating at the UBC FM.
Section 6: Confirmation
I ___________________, has read the UBC Farm Market Handbook (note to reader: please see Recommendations) and ensure that all the information provided on this application is true. I also understand that UBC Farm Market has the right to terminate my participation in the UBC Farm Market if I violate the standards and regulations of the handbook.
Signature: _______________________, Date:_______________________.

Section 7: Vendor Checklist. Please make sure the following is completed.
Application and Contact form, Cover letter*, $5 application fee (to be mailed directly), Certificates of Organic or transitional status, Scanned copy of Level 1 Food Safe Certificate (Mandatory if you are selling prepared goods or offering samples) and Proof of insurance.

*Please include a description of your production and/or growing methods, commenting on how they support the economical, social, and environmental wellness of your community. You may also wish to indicate how your role as a vendor may foster the educational development of your customers at the UBC Farm Market.

*Please note that if your application is approved, a stall fee of $20 for each day you plan to sell your products at the FM. The $20 stall fee covers a 10 ft × 10 ft stall size. It is possible to share a stall space with another vendor ($10/day). Please inquire for more information.

Appendix G: List of Vendors Provided by LaQuaglia (2007)

<table>
<thead>
<tr>
<th>Business/Contact Name</th>
<th>Phone and/or E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.M.A Farms</td>
<td></td>
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<tr>
<td>Stan Donhuysen</td>
<td></td>
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<tr>
<td>Thistle town Farms</td>
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<tr>
<td>Anthea Benson</td>
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<tr>
<td>The Saskatoon Patch</td>
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<td>Clifford Ask</td>
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<tr>
<td>Fragrant Flora</td>
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<td>Glenn Lewis</td>
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<tr>
<td>Maggadean Farm Garlic</td>
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<tr>
<td>Deborah Wilson</td>
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<tr>
<td>Sloping Hill Farm</td>
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<tr>
<td>Bea Keller</td>
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<tr>
<td>Dried Flowers by Judy</td>
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<tr>
<td>Judy De Jager</td>
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<tr>
<td>Nomad Cows</td>
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<tr>
<td>Douglas Goertz</td>
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<tr>
<td>Evergreen Organics</td>
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<tr>
<td>Shaun Schwartz</td>
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<tr>
<td>Smoothstone Bison Co.</td>
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<tr>
<td>Dean Sawatzky</td>
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<tr>
<td>Bella Mushrooms Cong Tai</td>
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<tr>
<td>Van</td>
<td></td>
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<tr>
<td>Farm House Natural Cheeses</td>
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<tr>
<td>Deborah</td>
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<tr>
<td>Stone Gate Farm</td>
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<tr>
<td>Alain LeBurel</td>
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<tr>
<td>Katissa Poultry</td>
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<tr>
<td>Chris</td>
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<tr>
<td>North Arm Farm</td>
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<td>Trish Sturdy</td>
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<tr>
<td>Garden Back to Eden</td>
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<tr>
<td>Michael Allen</td>
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<tr>
<td>Queen Charlotte Seafoods</td>
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<tr>
<td>John Hunter</td>
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<tr>
<td>Sun River Organics</td>
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<tr>
<td>Daniela Basile</td>
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<tr>
<td>Ross Farm</td>
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<td>Dorothy’s Farm</td>
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<td>Rick</td>
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<tr>
<td>Suede Hills Organic Farm</td>
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<tr>
<td>Fresh Off the Boat</td>
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<tr>
<td>Mary Anne Charles</td>
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<td>Ronel McHenry</td>
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29
Appendix I: Information Needed to Obtain Insurance Quote

- Old policy – to review rate, claims history, and level of coverage
- Type of farm, acreage, receipts, number of employees, years in business, outbuildings
- Machinery, livestock, lot concession, etc.

Appendix J: Contact Information for Nikki Roussanidis

Contact: Nikki Roussanidis Office Manager
Administration: FPIInnovations Paprican
3800 Wesbrook Mall, Vancouver, BC, V6S 2L9