UBC Social Ecological Economic Development Studies (SEEDS) Student Report

The Sustainability Of The Ubc Food System Collaborative Project III

Ivan Chan, Christina Gopal, Tony Kuo, Hanne Lorentsen, Beverlee Preston, Lara Tiro,

Andrew Zhong

University of British Columbia

AGSC 450

March 25, 2004

Disclaimer: "UBC SEEDS provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student project/report and is not an official document of UBC. Furthermore readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Coordinator about the current status of the subject matter of a project/report".

AGSC 450: Land, Food & Community III

Spring 2004

THE SUSTAINABILITY OF THE UBC FOOD SYSTEM COLLABORATIVE PROJECT III

Scenario #1: Agora



Group 15 Members:

Ivan Chan

Christina Gopal

Tony Kuo

Hanne Lorentsen

Beverlee Preston

Lara Tiro

Andrew Zhong

Table of Contents

Abstract 1
1. Introduction
1.1 Problem Definition
1.2 Identification of Value Assumptions
2. Project Objectives
2.1 General Tasks
2.1.1 Our Vision
2.1.2 UBC Food System Model Development 4
2.1.3 Sustainability Indicators
2.2 Specific Tasks
3. Methodology
3.1 Research Design
3.2 Sustainability Indicators
3.2.1 Social Indicators7
3.2.2 Ecological Indicators
3.2.3 Economic Indicators
4. Agora: The Current Situation
4.1 Agora's History
4.2 Specific Tasks in Regards to Agora10
4.2.1 Operational Requirements of Agora10
4.2.2. Collaboration and Contractual Agreements
4.2.3 Business-Mentor Relationship 13
5. Recommendations
5.1 Agora Vision
5.2 Recommendations for Sustainability 14
5.2.1 Social Recommendations14
5.2.2 Ecological Recommendations14
5.2.3 Economic Recommendations14
6. Final Reflections

Abstract

As part of our contribution to "The Sustainability of the UBC Food System Collaborative Project", we have collectively examined our value assumptions to formulate a vision and define the meaning of sustainability in terms of the UBC food system. In addition to adapting the models of last year, to better conceptualize our vision, our group developed a Sustain-O-Thermometer. This model is used to measure the indicators we developed for the social, ecological, and economic aspects of sustainability, and can be used to assess the current situation at UBC, and more specifically our scenario: Agora. For each indicator we developed methods or instruments for data collection. We, as a group, examined the current state of Agora, and focused on 3 specific tasks: 1) assess the operation requirements and limitations resulting from regulatory legislation, logistical restrictions and human resource and labor relations issues; 2) propose a plan for forms of collaboration and possible contractual arrangements with local producers and suppliers, including UBC Farm and UBC Natural Food Co-op; and 3) assess the feasibility and desirability of a business/mentor relationship between the new Agora and UBC food services. Upon doing so, we have explored solutions for Agora in reference to the three components: social, ecological and economic. Lastly, these we proposed recommendations to the various stakeholders involved with Agora so as to initiate a transition towards realistic sustainability.

1. Introduction 1.1 Problem Definition

The food system of the University of British Columbia (UBC) is a subsystem of the Canadian food system and, thus of the global food system. UBC currently purchases products from around the world to be served by its numerous cafeterias, restaurants and food vendors to feed its population of 45,000 (1). We will be examining this web of relationships in depth in this paper with regards to sustainability within the UBC food system.

Food production, processing, distribution, consumption, recycling and waste disposal are components of the UBC food system. Central to this dynamic interactive web of relationships are three other vital components: social, ecological and economic. A sustainable food system holds all three components of equal importance. At present, UBC is not representative of a sustainable food system. The majority of campus food outlets focus primarily on financial sustainability, if they did not, they would not be open for business. Although businesses are likely aware of the social and environmental impacts of their operations, these dimensions have not yet been fully implemented in everyday business dealings. Further, lack of public awareness and understanding of these impacts only serves to worsen the situation.

We have been given the task of suggesting ways to measure the sustainability of Agora. Agora, a former UBC Food Services food outlet closed on April 2003 and re-opened on January 2004 as a food service establishment operated by students from the Faculty of Agricultural Sciences. This food operation is a subsystem of the UBC Food System. This case study approach enables us to focus our investigation of sustainable food systems. In addressing this specific issue, we are able to explore a variety of routes to achieving sustainability. We can then extrapolate from this research so as to create a solid understanding of the UBC Food System.

1.2 Identification of Value Assumptions

Our group's values include a community-based approach, the importance of health, as well as ecologically-sound practices. Student involvement is essential in the study of the food system at UBC and the insight students bring to this project is invaluable. Our beliefs strongly incorporate health and the effect of food on human and global health. Our group realizes that the impacts of our local actions have an effect outside the borders of our community. We strongly feel that sustainability must always be able to connect back to the regional and global levels, as we are a microcosm of a larger system. Furthermore, our group values progressive change over quick and drastic changes. This is because in order to achieve a sustainable system, gradual change allows evaluation of different factors and assessed improvements. We wish to lay a foundation of the UBC food system for future generations to work with.

2. Project Objectives

2.1 General Tasks

Our value assumptions guided our critical assessment of the best four UBCFSP 2004 models and research designs. We filtered out attributes that we considered impractical, identified flaws and highlighted key indicators of sustainability presented in each model. From this brainstorming process we developed our vision, a model and a set of indicators to assess the sustainability of Agora, a subsystem of the UBC Food System. These indicators address social, ecological and economic aspects. We then designed methods of data collection to measure each indicator.

2.1.1 Our Vision

Our vision for the UBC Food System incorporates social, ecological and economic dimensions of sustainability. We recognize that a synergy between these dimensions exists and when one is directly affected, the others are then indirectly affected. A sustainable food system

is composed of a dynamic, evolving, multi-faceted web links consisting of these three dimensions that compliment each other rather than engage in competition.

We have what we would consider to be a "realistic" view of sustainability for UBC. In the past, most groups' visions of sustainability were perfect models (1,2,3,4). As Group 3 (2003) pointed out, complete campus sustainability can only be achieved if the entire system were closed (1). It is obvious that this is not the case at UBC and it would be nearly impossible to turn it into a closed system, especially considering the high percentage of student, faculty and staff that commute to campus every day. For this reason, we propose a somewhat reformed, realistic vision of sustainability, which we incorporated into the model we developed.

2.1.2 UBC Food System Model Development

From our research and numerous discussions, we conceived idealistic and realistic models of sustainability. Idealistic Sustainability constitutes UBC being a closed food system; all food would be grown, prepared, cooked, eaten and composted on campus by UBC residents, using organic, environmentally responsible practices that are economically sound. There would be no input from outside sources. Realistic Sustainability acknowledges the impossibility of the ideal and is designed such that its' standards can be reached.

The instrument we feel will best measure sustainability is derived from the concept of a thermometer. Just as a thermometer is used to measure body temperature to determine sickness or health in humans, a theoretical Sustain-O-Thermometer could be used to measure UBC's health in regards to sustainability. The thermometer will have several ranges, which will represent Unsustainable, Realistic Sustainability and Idealistic Sustainability.

There will be three Thermometers, where social, ecological and economic components of sustainability will each be represented. In order for the UBC Food System to be considered

The Sustainability of the UBC Food System Collaborative Project III

healthy, all three must be within the Realistic range. If one component is below the Realistic range, it would mean that the entire system is unsustainable. Equally, if a single component is above the Realistic range, it would also mean that the system is unsustainable. This may be difficult to understand, as one would be inclined to think that a score in the Ideal range would be desirable. However, unless the food system is a closed system, a score in this range will detract from the other two indicators and the overall sustainability. To better explain this, we look at the example of past business practices that focused primarily on economic sustainability and overlooked the ecological and social impacts of their actions. For example, the evolution of agriculture in the past century to focus on increasing yields and revenue has only created more problems for farmers (5). Today we are just beginning to realize the depth of the harsh consequences this perspective has created, as farmers face rising temperatures and falling water tables (5). It is clear that a single indicator in the Ideal range does not represent overall sustainability. Sustainability is a balance between society, ecology and economics; all three must be within a healthy range to be sustainable¹.

2.1.3 Sustainability Indicators

The UBC Food System is constantly facing new challenges and opportunities. It is vital to document and analyze these changes so as to encourage ideas for improvements. Indicators can quantitatively or qualitatively assess changes in the current food system. These results can benefit the formulation of specific strategies and goals that encourage movement from the current (e.g. what it is) to the future (e.g. what it should be) model food system. The reports prepared by the four best UBCFSP 2003 provided a wealth of information regarding research

¹ Please see Appendix I for a visual model of the Sustain-O-Thermometer. Also, an interactive version is available on our website (click on Group 15 (2004) on the AGSC website).

The Sustainability of the UBC Food System Collaborative Project III

methodology for food systems. The sustainability indicators were chosen with respect to our given scenario: student-run Agora. The indicators are consistent with the criteria identified in our chosen UBC Food System Model. Most of our indicators were selected from indicators identified by the 2003 UBCFSP groups.

2.2 Specific Tasks

The second objective of this paper is to research the feasibility of a student-run food service operation in the Agora space. We were given a list of specific research questions pertaining to our scenario. We collaborated with another group and split the tasks between both groups. The other group tackled issues pertaining to learning opportunities such as curriculum integration, and researching other student initiatives. Our group decided to specifically investigate the economic challenges and opportunities involved in managing a student-run operation. These tasks include operational requirements and limitations, contractual agreements with local producers, and business relationships with UBC Food Services.

3. Methodology

3.1 Research Design

The background research for the specific tasks facilitated the development of two indicators for each area: social, ecological and economic. The research design is to be implemented on September 2004 – April 2005. This school term will be selected as the base year and can be used as a frame of reference for future years. Although the contract of UBC Food Services expires in August 2005, it is assumed that another 2 year lease-free contract will be signed, so that data can be collected for the next four years. Data collection will be a collaborated effort between the following stakeholders: AGSC 450 students, the Agora Committee, and UBC Food Services. We recognize that future groups may hold different value assumptions and hence

propose a new set of indicators. It is necessary that the reasons for these changes are justified and explained in each year's summary report.

3.2 Sustainability Indicators

Indicator choices were based on social, ecological and economic dimensions of sustainability. The method for data collection of each indicator was proposed based on its appropriateness to Agora and relative ease in measurement.

3.2.1 Social Indicators

1) VOLUNTEERS AND HOURS OF OPERATION:

The number of hours a week an establishment is open for business is crucial to determine an operations' potential success. If the operation is only open a few hours per week, there are few opportunities to sell products and customers will seek food elsewhere. For this reason, it is extremely important to have an adequate number of volunteers "on-staff" to cover weekly shifts.

<u>Data Collection</u>: Keep track of the number of hours each volunteer works and the number of shifts that are missed and/or cannot be covered per week. Record the number of hours Agora is open for business per week.

2) NUTRITIONAL AVAILABILITY AND VARIETY:

The nutritional health of the Faculty of Agricultural Sciences (FAS) community is an important pillar of a sustainable food system. We want to ensure that the FAS can choose foods that follow Canada's Food Guide to Healthy Eating, as well as other choices they desire.

Data Collection:Examine the number of items on the menu that are consistent with
recommendations in Canada's Food Guide to Healthy Eating.

3.2.2 Ecological Indicators1) WASTE MANAGEMENT:

The most effective way to reduce waste is to avoid creating it, by having customers provide their own re-usable containers, waste can be significantly reduced. Composting of food waste and recycling of disposable products are important waste management principles should waste be unavoidable.

Data Collection:Compare weekly usage of disposable products to the number of people
who provide their own re-usable container and examine the amount of
waste composted or recycled versus the amount put directly in the trash.

2) LOCAL FOOD SUPPLIERS:

Supporting the local food economy is a mandate of our UBC Food System Model and is a necessity in achieving sustainability.

<u>Data Collection:</u> Examine the number of contractual agreements/collaboration with local producers, including UBC Farm.

3.2.3 Economic Indicators1) FAIR PROFIT

Fixed costs such as wages, utility overhead, or rent are not important financial issues for a volunteer food service operation. All costs borne on Agora are variable costs such as cost of goods sold, equipment expenses and transportation costs. Profitability (contribution margin) of a student run food service operation is defined as being able to generate sales revenue to cover all variable costs and still retain additional funds. It is important to note the difference between fair and maximum profit. A sustainable food system seeks fair profits without compromising quality service and products and health of the UBC community. Instead of maximizing profit levels, the contribution margins generated are invested into student projects benefiting the Agricultural Sciences community. Data Collection:Examine monthly financial statements prepared by the Agora Committeeto determine if all variable costs are covered by net income. Account forthe number of projects which have been financially supported by Agora.

2) AFFORDABILITY:

Cheap food products are generally equated with affordability. Products sold at Agora can be competitively priced with those sold at other food outlets such as the International Village, AMS Food and Beverage operations, and the UBC Food Services operations. Decisions to increase or decrease the prices of good sold needs to be justified whether such changes will either positively or negatively affect students' purchasing decisions.

 Data Collection:
 Compare Agora's prices to other food service outlets across the UBC campus and interpret the differences.

To incorporate the individual indicators we have chosen into our Sustain-O-Thermometer, each individual indicator is subjected to a multiplier of 0.5. Indicators from the same category are added together to give a score that translates to a position on the Sustain-O-Thermometer, either, Idealistic Sustainability, Realistic Sustainability, or Unsustainable. These ranges are defined by specific numerical values and/or qualitative measurements (Appendix II).

4. Agora: The Current Situation

4.1 Agora's History

After several years of negative profit margins, UBC Food Services decided to close Agora in April 2003. Recognizing that Agora's closure would leave a gap in the food services available in the MacMillan Building, the FNH student committee approached UBC Food Services and signed an agreement to operate the kiosk as a non-profit, volunteer-based operation to serve the Faculty of Agricultural Sciences. However, the FNH committee is having difficulties keeping regular hours of operations and providing a variety of food items (due to the lack of volunteers and operational limitations). Foods served include fair trade coffee, baked goods made at volunteers' kitchens, bi-weekly Wednesday Lunch and experiments have been made with offering other foods like yogurt parfaits and pancakes. There are few hot dishes and variety is minimal compared to other food outlets on campus. The goal now is to reinvent Agora into a student run operation to better serve the needs of students in the FAS.

4.2 Specific Tasks in Regards to Agora

4.2.1 Operational Requirements of Agora

At present, a two-year lease agreement has been signed by UBC Food Services, the FNH Committee and Agricultural Sciences expires on August 2005 (Appendix III). Negotiations for a 5 year contract extension need to be considered for the long-term economic viability of this operation.

Another issue is that the kitchen is not designed for commercial preparation of hot meals. Currently there is a single basin sink, a microwave, a commercial cooler, and shelf space. The facility lacks a commercial sink (with 3 basins, to wash, rinse and disinfect), a household or commercial type dishwasher, a commercial range and/or oven with fume hood, and an industrial refrigerator. As a result, the menu choices Agora can offer are quite limited, lunch meals typically consist of sandwiches, wraps and/or salads. Volunteers often bake muffins, squares and other goodies at home and donate them to be sold by Agora. Although Agora staff has access to the FNSC 140 kitchen to prepare hot dishes, it is a considerable inconvenience because the transportation of the hot meals requires hot holders to maintain food temperatures within the recommended safety range.

Another food safety issue is the lack of a *HACCP* plan for Agora. The provincial government has made HACCP mandatory in all food establishments in BC. If a plan is not

developed soon, Agora faces a risk of being shut down. Furthermore, it is recommended that Agora volunteers have a **Foodsafe level 1 Certificate to ensure the safe handling of food**. Agora is currently operating under a Food Establishment Permit, which expires within the year.

Human resource limitations involve the reliance of the operation on student volunteers. Volunteers cannot be paid, as this would violate the contract signed between the FNH Committee and UBC Food Services. Further, if a paid staff were to be established, they would have to become union members of the same union UBC and AMS Food Services staffs belong to CUPE 116. Agora's labor reliance on volunteers makes it difficult to retain workers and schedule regular hours of operation, especially since the current volunteer base is very small.

4.2.2. Collaboration and Contractual Agreements

As we work toward our goals for the future of Agora, we hope to incorporate contracts to ensure successful business relationships with the UBC Farm and other local farmers. In making a shift toward the use of local foods, there are many benefits to be seen.

"Reliance on seasonal, local food builds food security by ensuring continued local food production. It also supports local economic development by re-circulating dollars; saves local farmland; provides fresher, healthier food; and lowers fossil fuel use and subsequent pollution by lessening the global transportation of food" (6)

By purchasing from local suppliers, Agora consumers will also pay lower prices, and increase their awareness of food sources (7). Thus we propose that Agora make contractual agreements with UBC farm and other local farmers.

In 2003, a weekly box of produce and herbs from the UBC Farm was sold to the Agricultural Undergraduate Society from September to October (8). We propose having a similar arrangement with Agora, where produce delivery would take place weekly. We do realize that crops such as cucumber, squash, zucchini, peppers, tomatoes, cabbage and broccoli will be limited due to seasonal changes (9). Agora could adapt by changing the menu to reflect

The Sustainability of the UBC Food System Collaborative Project III

seasonal production changes. Agora would purchase a box for \$42.60 weekly (Appendix IV). These items would be used to prepare fresh raw veggies and salads daily, as well as items used in sandwiches and other menu items. Agora would receive this amount weekly with the option to purchase more via purchase order forms. See Appendix V for a copy of the proposed contract.

Due to limited produce available from season to season, Agora would also build an arrangement with other local producers to ensure a weekly supply, again with the option to purchase additional items in case of events or special menu items. We propose an agreement with Sqweez (10), a fresh organic food delivery service. We suggest this company, as it is convenient (offers day and evening delivery), affordable (only a minimum \$27 order), and can customize a bin to our requirements/requests at any time. We propose ordering the Main Sqweez box weekly for \$35.00. (See Appendix IV for the contents of the box.) This contract would allow Agora to sell fresh organic fruits and vegetables year round. See Appendix V for a proposed copy of the contract.

In considering contracts between Agora and its food suppliers, the benefit of using local farmer co-operatives was explored. Co-ops allow farmers to market their crops together and simplify purchasing hassles for the consumer (e.g. buying from a co-op vs. multiple farms). Co-ops also have the advantage that they can offer lower purchase prices, resulting from shared marketing, packaging, delivery and travel costs (7). Although co-ops are convenient for many, they are most likely to benefit large scale operations. Furthermore, because Agora would only be buying small amounts of produce from the co-op, Agora may not even be considered eligible to buy from many co-ops. By using the UBC Farm and Sqweez, we will still obtain the many benefits of using local farmers.

The Sustainability of the UBC Food System Collaborative Project III

Agora currently purchases organically grown and fairly traded coffee from Café Etico. It is \$48/lb, at present, Agora purchases 5lbs/week. This arrangement has already shown to be beneficial in terms of economics (a mug of coffee is sold at \$ 0.75 and fair trade), the environment (organically grown) and socially acceptable to the community in terms of taste and cost. We suggest that Agora continue its relationship with Café Etico.

4.2.3 Business-Mentor Relationship

A business mentor relationship can be very beneficial and helpful for new, small businesses. Having a business mentor such as the UBC Food Services would be invaluable for student-run Agora. A business mentor would aid the business in succeeding by offering experienced advice and prevent Agora from making the same mistakes that the mentors themselves may have made in the past. UBC Food Services would make a prime business mentor because they run a large majority of the food outlets on campus. Further, they have been in business for many years and could offer invaluable knowledge to Agora on running a successful business. In return, Agora would benefit their mentor by serving as a case study for a volunteer operation and may provide them with ideas with how to improve sustainability within their existing operations.

5. Recommendations

5.1 Agora Vision

Our vision of Agora includes a place for students to purchase a variety of healthy foods, understand the source of their food, encourage ecologically friendly practices, and to also be profitable so that the operation is able to continue its business yearly. Increasing a sense of community is important to our vision of both Agora and the UBC food systems as a whole. To do so, we wish to encourage student involvement in maintaining the services offered by Agora. In addition, we envision having Agora as a place to provide both an affordable and constant supply of food for its consumers. We feel that these goals will impact the economical, environmental, and social sustainability of Agora.

5.2 Recommendations for Sustainability

Our recommendations are based on observations, the indicators we have selected and what our group believes will be useful, effective and beneficial. Overall, the goal is to achieve the mark of Realistic Sustainability on the Sustain-O-Thermometer within the Agora operation.

5.2.1 Social Recommendations

- Create a yearly-elected committee dedicated to the maintenance and progress of Agora as part of the Food, Nutrition, and Health department.
- Encourage involvement of volunteer participation by offering bonus marks towards AGSC courses based on the number of hours worked by the volunteer.
- Follow Canada's Food Guide to Healthy Eating when menu planning.
- Aim for Hours of Operation to be Monday to Friday, 9am to 4pm.

5.2.2 Ecological Recommendations

- Purchase produce from local producers/markets.
- Switch to a non-disposable dishware facility.
- Promote use of re-usable containers by customers.
- Have composting and recycling bins readily available to customers.

5.2.3 Economic Recommendations

- Ensure that prices are competitive and fair.
- Do quarterly price comparisons with UBC and AMS Food Service outlets.
- Profits are not maximized and any profits support the FAS.

6. Final Reflections

The UBC Food System sustainability problem stems from the fact that "what is taught and practiced have not aligned" (1). It is clear that sustainability will not be achieved until UBC stakeholders are willing to do what it takes to make this alignment possible.

This continual collaboration project is a step forward towards a sustainable food system. We recognize that the UBC Food System is continually changing by engaging with the three components: social, ecological and economic. These components may positively interact or disconnect with each other. Our own value assumptions, goals and perspectives shape the lens we use to view these relationships.

The current state of Agora lies far from the Realistic range of our Sustain-O-Thermometer. To make such an operation more viable for long-term use, ecological, social, and economic considerations must be addressed. In light of this issue, we have developed a vision, a model and a set of indicators. We realize that we, as stakeholders in this process, should continually reflect, examine and agree on a shared vision, model and set of indicators with other stakeholders. This visionary process needs to be carried out so as to encourage further revision and examination of our research design.

References

1) Au, Shumann, Collinson, Heidi, Goyal, Monic, Kovanen, Teija, Nakamura, Mami, Rajakaruna, Anushka, Thomson, Kimiko. Group 3, 2003. The Sustainability of UBC Food System: Collaborative Project II. Retrieved March 13, 2003: http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home

2) Brighten, Caryn, Ducommun, Michelle, Hui, Cecilia, Lau, Jessica, Ngai, June, Setianto, Jennifer, Warrington, Tanya. Group 9, 2003. The UBC Food System: Indicators in the Measurement of Sustainability. Retrieved March 13, 2003: http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home

3) Cant, Meghan, Forbes, Chad, Jones, Lara, Lu, Leslie, Quan, Vincent, Smith, Kerry, Wong, Tony. Group 14, 2003. The Sustainability of The UBC Food System : Collaborative Project Agricultural Science 450, 2003 Class. Retrieved March 13, 2003: http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home

4) Cheng, Katherine, Gershtein, Ina, Hewko, Sarah, Martinolich, Katie, Pinkerton, Kirsten, Sivapatham, Jana, Su, Jenny. Group 18, 2003. Assessing the Sustainability of the UBC Campus. Retrieved March 13, 2003: http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home

5) Brown, Lester R., 2003. Plan B, Rescuing a Planet Under Stress and a Civilization in Trouble. Earth Policy Institute. W.W. Norton & Company: New York.

6) Garrett, S.M. A Sense of Place: Serving Local Food at Your Meeting. Washington State University, Division of Sustainable Food Systems of the Society for Nutrition Education. <u>http://www.sne.org/locfoods_n.pdf</u>. Retrieved March 14, 2004.

7) Mather, J. W, Preston, H.J. Cooperative Benefits and Limitations. United States Department of Agriculture.1990 http://www.rurdev.usda.gov/rbs/pub/cir1sec3.pdf. Retrieved March 14, 2004.

8) Smit, Rosanne. 2003 Market Garden Report, UBC Farm: <u>http://ubcfarm.agsci.ubc.ca/AGSC450/mgarden_report_2003.doc</u> November, 2003. Retrieved March 14, 2004.

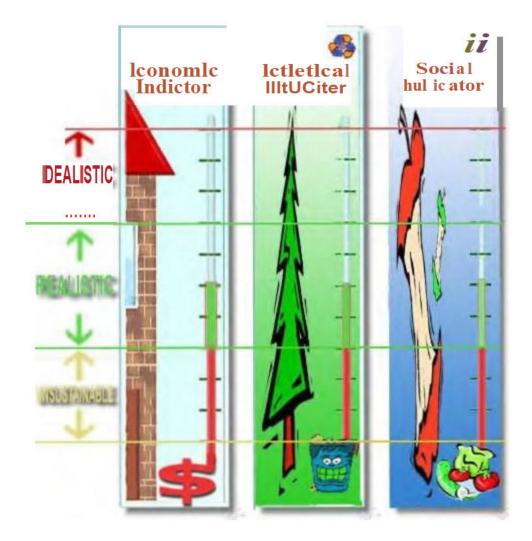
9) UBC Farm: http://www.agsci.ubc.ca/ubcfarm/ Retrieved March 10, 2004.

10) Sqweez. <u>http://www.sqweez.com/</u> Retrieved March 15, 2004.

11) 2002 Sales Invoice Details, UBC Farm:

http://ubcfarm.agsci.ubc.ca/AGSC450/mgarden invoice detl 2002.xls Retrieved March 14, 2004.

Appendix 1: Sustain-O-Thermometer



Indicators		Degree of Sustainability	Measure of Sustainability
Volunteers &		Idealistic	Excessive amount of volunteers; Open more than 40 hours per week
Social	Hours of Operation	Realistic	Adequate volunteers to cover regular shifts; Open Monday to Friday (25-40 hours/week)
		Unsustainable	Operation is run by a handful of volunteers; Open less than 25 hours per week
	Nutritional Availability & Variety	Idealistic	The menu only offers choices that strictly follow CFGHE*
		Realistic	The menu combines CFGHE* choices with other consumer demands
		Unsustainable	Lack of variety; few healthy choices; mostly "junk food" available
		Idealistic	\geq 90% reusable containers used and \geq 90% of waste is composted or recycled
	Waste Managment	Realistic	60 - 90% reusable containers used and 60-90% of waste is composted or recycled
		Unsustainable	\leq 60% reusable containers used and \leq 60% of waste is composted or recycled
Ecological	Local Food Suppliers	Idealistic	\geq 90% of food is supplied by local producers; high seasonal variation
		Realistic	60-90% of food is supplied by local producers; some seasonal variation
		Unsustainable	\leq 60% of food is supplied by local producers; little or no seasonal variation
		Idealistic	Products are sold for cost price $+ \ge 20\%$
	Fair Profit	Realistic	Products are sold for cost +1-19%
Economic		Unsustainable	Products are sold at cost or for less than cost
	Affordability	Idealistic	Products prices are ≤85% of similar products offered by UBC and AMS Food Services
		Realistic	Products are priced within 15% of UBC and AMS Food Services products of a similar nature
*Canadian Food Guide to Hea		Unsustainable	Products prices are $\geq 115\%$ of similar products offered by UBC and AMS Food Services

Appendix II: Sustainability Indicators Table

*Canadian Food Guide to Healthy Eating

Appendix III : Copy of Lease Agreement Between UBC Food Services, the FNH Committee and Agricultural Sciences

UBC Food Services

MEMORANDUM

To : Dean, Faculty of Agricultural Sciences

From: Andrew Parr Director, UBC Food Services

FNH Student Committee (Attn: Novella Lui, Lara Tiro)

Date: November 14, 2003

At the request of the Faculty of Agricultural Sciences (hereinafter called the "Faculty") for a small outlet to provide some hands-on training to students enrolled in the Food, Nutrition and Health Program, Food Services agrees to grant a license (hereinafter called the "License") at no cost to the FNH Student Committee (hereinafter called the "Committee") to occupy and use the food services outlet known as AGORA (hereinafter called the "Premises") located on the first floor of the H. R. MacMillan Building at 2357 Main Mall, as shown highlighted on the plan attached hereto as Annex A, subject to the following terms and conditions:

- 1. The term of this License shall be two (2) years commencing from September 1, 2003 to and including August 31, 2005. This License may be terminated by either party by giving the other party a 30 days' advance written notice.
- 2. The Premises shall be use for hand-on training to students enrolled in the Food, Nutrition and Health Program for the following services only:
 - i. Weekly Wednesday Lunches
 - ii. Wednesday BBQ
 - iii. Bi-weekly Muffin Mondays
 - iv. Coffee and Breakfast Munchies

and hours of operation shall be between 9 am and 1 pm, Monday to Friday. Any changes or additions to the above services and hours of operation shall be subject to the prior consent of Food Services, acting reasonably. In the interest of greater clarity, the Committee will not control the Premises other than for the reasonable provision of those services described and for those times indicated above.

- 3. Food Services, the Committee and the Faculty agree that the overall management and control of the Premises shall vest with the Faculty.
- 4. The Committee agrees to observe, obey and conform with all reasonable rules and regulations from time to time made by the Faculty regarding the use and occupation of the Premises.
- 5. During the term of this License, the Committee is permitted to use the equipment of Food Services as shown in Annex B (hereinafter called the "Equipment") at no charge.
- 6. The Committee shall be responsible for all costs associated with the operation of the Premises including, but not limited to, the maintenance and repair costs of the Premises and Equipment, custodial and other cleaning costs and utilities.
- 7. The Committee agrees to maintain the Premises and Equipment at the levels immediately prior to its occupation of the Premises, fair wear and tear excepted, and Food Services may inspect the Premises and Equipment at all reasonable times, with 5 days advance verbal or written notice.
- 8. The Committee shall comply with all health and workplace safety standards for operation of the Premises and Equipment and hereby agrees to indemnify and save harmless Food Services from any claims or liabilities arise as a result of any operation error or violation of health and workplace safety standards.
- 9. The Committee and the Faculty agree that any marketing and/or advertising with respect to the operation of the Premises by the Committee shall be confined to the H.R. MacMillan Building and the Family and Nutritional Sciences Building only.
- 10. Food Services, the Faculty and the Committee agree to meet at least twice each year, in March and September, to discuss mutual issues, license renewal and etc.
- 11. The Committee must maintain time records and books of account, invoices, receipts, and vouchers of all expenses incurred, in the form and content satisfactory to Food Services and must permit Food Services at all reasonable times to inspect and audit its books and records.
- 12. The Committee covenants and agrees that any revenue generating from the operation of Premises for the abovementioned services, net of operating expenses, shall be used solely and entirely to subsidize student programs and services of the Committee, or the Faculty, or the University of British Columbia. If so requested by Food Services, the Committee shall submit a financial statement and a report showing the total

revenue and expense of the operation, the distribution of the Committee's net income, and the student programs and services that have received its subsidy.

- 13. The Committee shall not erect or place or suffer to be erected or placed or maintain any sign of any nature whatsoever on the Premises without first (i)obtaining Food Services' written approval and consent in each instance and (ii) abiding by the rules and regulations of the University of British Columbia with respect to such signs.
- 14. At the sole cost of the Committee, the Premises shall be kept by the Committee in a clean and sanitary condition at all times to the satisfaction of Food Services.
- 15. The Committee shall not make any alterations or changes to the Premises without the prior consent of Food Services.
- 16. The Committee shall comply with and abide by all federal, provincial, municipal and other governmental statutes, ordinances, laws and regulations affecting the operation of the Premises.
- 17. The serving and consumption of alcoholic beverages anywhere in the Premises must comply with UBC policy and all legal requirements.
- 18. On expiry of this License or at earlier termination of this license as herein provided, the Committee shall redeliver to Food Services the Premises and Equipment to the satisfaction of Food Services, acting reasonably.

If you are in agreement with the foregoing terms and conditions, please sign all copies of this memorandum where indicated, retain one copy for your file, and return the other to our office.

Andrew Parr Director, UBC Food Services Acknowledged and Accepted for the Faculty of Agricultural Sciences

Date: _____

Acknowledged and Accepted for the FNH Student Committee

Date: _____

Annex B

Equipment provided by UBC Food Services:

- 1. Bakery display case
- 2. All counters, sinks and built in soup wells
- 3. Storage racks in back storage area
- 4. Lockers
- 5. Menu boards
- 6. Safe
- 7. 1 Food Services cooler and 1 Coke cooler
- 8. Assorted Smallwares (see annex B1 for details)

Item	Quantity	Average Price/unit (\$)	Total Price (\$)
Bagged Lettuce	2	2.50	5.00
Broccoli	3	1.50	4.50
Carrots	2	1.86	3.72
Derek Cukes	5	1.00	5.00
Herbs	2	1.00	2.00
Salad mix	6	3.73	22.38
			42.60

Appendix IV: Weekly Purchase from UBC Farm (11)

(UBC Farm 2002 Sales Invoice Details)

Weekly Purchase from Sqweez (10):

Item	Quantity		
Gala Apples	6	Carrots	1 bunch
Bananas	2.5 pounds	Hothouse Tomatoes	3
Strawberries	1 pint	Yellow Potatoes	2 pounds
Navel Oranges	6	Total Price of Box:	\$35.00
Anjou Pears	4		
Kiwis	2		
Green Beans	1 pound		
Spinach	1 bunch		
Red-leaf Lettuce	1 head		
Celery	1 bunch		

Appendix V

FOOD SUPPLY CONTRACT

TO:	UBC FARM
	6182 SOUTH CAMPUS ROAD, UBC, VANCOUVER, BC
FROM:	AGORA FOOD SERVICES
	MCMILLAN BUILDING, UBC, VANCOUVER, BC
SUBJECT:	WEEKLY FOOD SUPPLY
DATE:	1/7/2013
CC:	FARM TEAM

TO BE EFFECTIVE SEPTEMBER 2004

UBC Farm has been given the contract to deliver a weekly supply of selected produce to Agora Food Services. Deliveries will take place every Monday at 9:00 am, at Agora (in the basement of the MacMillan Building, on the UBC campus). All payments will be in cash and will be made at the time of delivery.

The total volume of each item to be delivered and price is as follows:

Item	Quantity	Average Price/unit (\$)	Total Price (\$)
Bagged Lettuce	2	2.50	5.00
Broccoli	3	1.50	4.50
Carrots	2	1.86	3.72
Derek Cukes	5	1.00	5.00
Herbs	2	1.00	2.00
Salad mix	6	3.73	22.38
			42.60

If the items requested are not available (due to seasonal changes), suitable substitutions will be considered. In addition, if Agora wishes to purchase additional items, orders via the purchase order should be made 2 weeks prior to delivery date. If production of UBC Farm

cannot be extended to supply Agora with adequate food supply, they must give notification 2 weeks prior to termination or possible postponement for the school year.

Since items are not being transported a far distance, packing restrictions were not an issue, however all items must be contained in a loose pack/box for easy handling.

This contract is an agreement on behalf of the UBC farm and Agora Food Services. Both parties are subjected to the terms of this contract and will be held liable if their parts are unfulfilled.

Signed Below:

Agora Food Service Representative
Date signed: _____

UBC Farm Representative
Date signed:

FOOD SUPPLY CONTRACT

TO:	SQWEEZ, FRESH ORGANIC FOOD DELIVERY
FROM:	AGORA FOOD SERVICES MCMILLAN BUILDING, UBC, VANCOUVER, BC
SUBJECT:	WEEKLY FOOD SUPPLY
DATE:	1/7/2013
CC:	SERVICE TEAM

TO BE EFFECTIVE SEPTEMBER 2004

Sqweez has been given the contract to deliver a weekly supply of selected produce to Agora Food Services. Deliveries will take place every Monday at 11:00 am, at Agora (in the basement of the MacMillan Building, on the UBC campus). All payments will be in cash and will be made at the time of delivery.

The weekly purchase will be the "Main Sqweez Box." The total volume of each item to be delivered and total price of the box is as follows:

Item	Quantity
Gala Apples	6
Bananas	2.5 pounds
Strawberries	1 pint
Navel Oranges	6
Anjou Pears	4
Kiwis	2
Green Beans	1 pound
Spinach	1 bunch
Red-leaf Lettuce	1 head
Celery	1 bunch

Carrots	1 bunch
Hothouse Tomatoes	3
Yellow Potatoes	2 pounds
Total Price of Box:	\$35.00

If the items requested are not available (due to seasonal changes), suitable substitutions will be considered. All substitutions must be indicated 2 weeks prior to the date of delivery of the box. In addition, if Agora wishes to purchase additional items, orders via the purchase order should be made 2 weeks prior to delivery date. The purchase order is available online at http://www.sqweez.com/ in the existing customer area; this will reflect customizing the box as well as substitutions to the box.

All items should be properly packaged according to food safety regulations, at proper temperatures, and in a standard box for easy transport and storage handling.

This contract is an agreement on behalf of the Sqweez and Agora Food Services. Both parties are subjected to the terms of this contract and will be held liable if their parts are unfulfilled.

Signed Below:

Agora Food Service Representative
Date signed:

Sqweez Representative
Date signed: