

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

**Creating and Strengthening Linkages between the UBC Farm and the Macmillan
Community**

Edith Chan, Ailyn Go, Joanna Kwan, Linlin Nie, Jessie Tai, Tracy Wong, Jane Zhao

University of British Columbia

AGSC 450

April 13, 2007

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".

UBC FOOD SYSTEM PROJECT (UBCFSP)
AGSC 450
April 13, 2007

***Creating and Strengthening Linkages
between the UBC Farm and the Macmillan
Community
(Scenario 2)***

Group 25
Edith Chan
Ailyn Go
Joanna Kwan
Linlin Nie
Jessie Tai
Tracy Wong
Jane Zhao

TABLE OF CONTENT

Abstract	3
Introduction	3
Problem Definition	4
Identification of Group Values	5
Reflection on the Vision Statement	5
Methodology	
• Agora Potential Food Supply Survey	6
• Research and Review	7
Findings and Discussion	
• Survey Findings and Discussion	8
• Research	
a. Previous AGSC 450 Project Papers	10
b. Root Cellar	12
c. Campus University Farms from External Sources	12
d. UBC Farm and Agora Eats Café Data Trends	13
e. Recipe Development	13
• Guest Speakers and Group Discussion	14
• Marketing/ Advertisement for Agora Eats Café	14
Recommendations	15
Conclusion	17
References	19
Appendices	21

ABSTRACT

The UBC Food System Project (UBCFSP) is an ongoing project that aims to introduce changes and improve the sustainability of the UBC Food System. The goal of Group 25 was to investigate and strengthen the relationship between UBC Farm and Agora Café. Currently UBC Farm is not a major supplier of Agora Cafe, despite its location proximity to the Macmillan community and its affiliations with the FLFS. In order to design ways to increase supply from UBC Farm to Agora Cafe, surveys were conducted using Community-based Action Research (CBAR) mode to determine current opinions regarding Agora Café and food preferences of Agora customers. The major finding of the survey was that there is a relatively weak linkage between Agora Café and the Macmillan community due to the limited selection of food. Further research showed that currently UBC Farm is not producing enough variety to support the demands of Agora customers. Based on suggestions from previous papers and newer findings, the possibility of a root cellar for UBC Farm was investigated and sample recipes and menus for Agora Café were also created. Additionally, marketing and educational strategies were designed to increase awareness of Agora Café. Lastly, recommendations were suggested to help further strengthen the relationship between UBC Farm and Agora Café.

INTRODUCTION

The University of British Columbia Farm on south campus, is a 24 hectare teaching, research, and community operation, and is also the only working farmland within the city of Vancouver. The Farm is an academic-driven initiative where students, faculty, staff, and the local community have been working together to create a place that allows people to foster the connection between land, food and community (UBC Farm, 2007a). The UBC Food System Project (UBCFSP) is a student-driven initiative to facilitate the connection by strengthening the linkages between the UBC Farm and the Macmillan community. Our main focus in this project is to investigate and reinforce the relationship between the UBC Farm and the Agora Café - a non-profit, student-run food outlet committed to supporting fair trade, organic and locally grown produce. Agora is located on the lower level of the Macmillan Building, and is operated by 60-90 student volunteers from The Faculty of Land and Food System (FLFS). Agora Eats Café not only provides customers with healthy and inexpensive foods, but also provides students with hands-on work experience and opportunities within the faculty, as well as education on healthy eating through a monthly newsletter (Richer & Project Partners, 2007). In order to accomplish our main

focus, our group researched and designed methods to increase supply from the UBC Farm to the Agora. Surveys were conducted on FLFS faculty members and students about Agora Café and their food preferences in order to determine how produce from the UBC Farm can be utilized in the outlet. In addition, we analyzed Agora's potential capacity on expansion in order to accommodate an increased supply level from the UBC Farm. We also addressed the Farm as a potential major supplier to encourage campus connections; created novel recipes to incorporate Farm products; and designed promotional strategies to increase awareness of Agora.

PROBLEM DEFINITION

Among one of the seven scenarios, our group explored how an academic empowered, grant-based, and labour-intensive piece of arable land can expand and benefit a faculty that is grounded in science but global in scale (UBC Farm, 2007a). The Faculty of Land and Food Systems embraces a body of individuals that advocates or understands the principle of sustainability and exploitation of local resources, among many other important matters (FLFS, 2007). As part of the Faculty, the UBC Farm has an advantage in terms of its close location proximity to the primary Faculty building, Macmillan, as well as to the entire university grounds. Yet, presently food venues, such as Agora Eats café, and food-related community events revealed minimal interest to the Farm as their food supplier. Without linkages between the UBC Farm and food venues, especially within the Faculty, the Farm has limited distribution channels to reach consumers in the Faculty and elsewhere.

The UBC Farm also lacks sufficient awareness among the members of the Macmillan community. Despite their knowledge of agriculture and global communities, countless students and staff are insentient of the Farm itself along with its foundation, production, location, and stance. Without awareness, the community cannot understand the value of the UBC Farm, nor

have any sense of belonging within the neighborhood.

IDENTIFICATION OF GROUP VALUES

Our group all shared a weak anthropocentric view upon contemplating the global food system. That is, while we place man's well-being above all things, we understand that our well-being is ultimately dependent on the well-being of the environment. Based on this perspective, we generally agreed with the seven guiding principles in the Vision Statement that was collaboratively developed by the project partners for attaining a sustainable UBC Farm system.

REFLECTION ON THE VISION STATEMENT

Our group partially agrees to Principle 1 that "Food is locally grown, produced and processed" (UBCFSP Resources, 2007). Given all the benefits of a local food system, we believe that there are a few limitations that man cannot manipulate due to concerns regarding climate, as well as social and financial sustainability. For instance, not all food can be locally grown (i.e. bananas, papaya, etc). It is also impractical to grow large varieties of food to suit each consumer's distinctive tastes in a highly diversified culture such as UBC or Vancouver.

Principle 4 states that "Providers and educators promote awareness among consumers about cultivation, processing, ingredients and nutrition" (UBCFSP Resources, 2007). Our group believes nutritional labels provide useful information to consumers regarding the food's ingredients and dietary values. It is also imperative for every food establishment to recognize and associate with the background and history of their products.

Principle 5 conveyed conflicting notion, as it states "Food brings people together and enhances community" (UBCFSP Resources, 2007). We agree that food is an element to enrich community but doubt its feasibility. To promote consumers to eat locally, it is possible by mailing discount coupons to people in certain areas. However, this tactic will increase cost of

administration and decrease profits per meal. Our group agrees with Principle 6, but we think that it will be difficult to accomplish in reality; as it says, food “Is produced by socially, ecologically conscious producers” (UBCFSP Resources, 2007). Certainly this is a superficial goal, however, many producers are not aware of such importance, and even some consumers are not paying enough attention to these aspects in their food purchases.

In terms of the socially related principles (no. 2, 3, 7), from a weak anthropocentric view point, man to the best of his abilities should cooperate with natural surroundings, whether composing waste, diversifying food, or fairly trading commodities.

METHODOLOGY

Agora Potential Food Supply Survey

The long term social and economic sustainability of Agora Café cannot be achieved if the Café’s supply cannot meet customer demand. In order to determine customer opinion and preferences on current and potential food selections in Agora Café, our group decided to conduct a structured survey.

Community-based Action Research (CBAR)

Our group opted to utilize the CBAR mode to conduct the survey. CBAR is a collaborative approach which helps researchers to investigate and solve their problems systematically, in which both are considered as an “active participant.” Three steps are involved in the CBAR mode: looking, thinking, and acting (Stringer, 1999).

Looking

Our group decided to select individuals within FLFS (students, faculty members and staff) as our “participants” because they are either current/potential Agora customers, or individuals who play a role in Agora’s administrative decision making process. In order to obtain information about

their eating and purchasing habits and their opinions on Agora Café, a six-question survey was introduced (see Appendix E). The survey was conducted not only within the Macmillan building, but at different buildings around the UBC campus as well, such as the FNH building and the Chemistry building. We initially conducted fifty-five surveys. After discussion with the instructor and TA, we concluded that our sample size was too small, which could not fully represent the Macmillan community. Thus, additional surveys were conducted that resulted into eighty-five undergraduate students, fourteen faculty members and staff, and six graduate students pool.

Thinking/Acting

We used Microsoft Excel to further analyze the data gathered in the “looking” step. We decided to analyze undergraduate students, graduate students and faculty members separately since the age and educational background of the participants would affect their answers. We entered all the numerical data into Excel spread sheets and used the “Chart” function to draw graphs to show the results of the survey. No statistical analyses via ANOVA or t-tests were conducted due to set up of survey and low representation between groups. For example, separate analysis was implemented between each of the three groups; graduates only consist of six and thus are inadequate to conclude any findings. Only trends were discussed as a group in terms of overall findings and recommendations.

Research and Reviews

Our team sought to assess past articles that have been accomplished by previous AGSC 450 students in order to further expand on their ideas, and also provide additional research. Furthermore, we were particularly interested in food outlets that had closer linkages with the UBC Farm. It is our desire to incorporate some of these ideas into Agora if they have been successful. Our group also utilized valuable resources such as the UBC Farm production spreadsheet

(Appendix A) and Agora Eats Café finance reports (Appendix D) in our group discussions on menu development, seasonal produce inventory, off farm processing, and next year's implications. Mark Bromke and Amy Frye were guest speakers who visited the AGSC 450 class, and important information regarding the Farm were discussed and recorded. They answered many concerns our group were struggling and questioning with, and they were a key resource to the project. Marketing, advertisement, and educational information for UBC Farm produce at Agora were considered. Research on present marketing and educational strategies at Agora were also analyzed.

FINDINGS AND DISCUSSION

Survey Findings and Discussions

- 1 There is a relatively weak linkage between Agora Café and Macmillan community. More than half the surveyed undergraduates and faculty member/staff never or rarely visit Agora. 0% of graduate students never visit and 16.67% rarely visit Agora Café; 50% of them often visit Agora and 0% them always visit Agora. (Appendix E, fig 1)
- 2 Most participants consume fruits and vegetables on a daily basis. For example, 0% of the graduates and faculty members/staff never eat vegetables and fruit and only 2.35% undergraduates never eat vegetables and fruit. There are about 40% undergraduates, 33.33% graduates and 50% faculty members/staff who always consume vegetables and fruits. (Appendix E, fig 2)
- 3 A great number of participants, especially faculty members/staff purchase seasonal food frequently. For example, 0% of the graduates and faculty members/ staff and only 5.88% of undergraduates never purchasing seasonal food. (Appendix E, fig 3)
- 4 Few participants visit their local farmers' market monthly. There are 1.18% undergraduates, 7.14% faculty members/ staffs visit and 0% graduates who always visit Farmers' Market.

(Appendix E, fig 4)

5 The majority of the participants support Agora purchasing seasonal food. Half of the surveyed participants strongly support Agora to introduce seasonal food. (Appendix E, fig 5)

6 Customers are not satisfied with the current food selections in Agora. Some participants expressed that more hot food, local produce and animal products should be introduced.

The weak connection between the Macmillan community and Agora Café is mainly due to the limited selection of food as Agora's current supply cannot meet the customers' demand. The degree of convenience in accessing the food often plays an important role when people decide what to eat and where to eat. Given a wider food selection, more people would visit Agora to have lunch. For example, a great number of surveyed community members eat vegetables and fruit everyday, purchase seasonal food frequently and support Agora to purchase seasonal produce. Many participants genuinely desire to buy local food. However, from the survey results, one can see that few participants visit local farmers' market on a monthly basis. There are a limited number of farmers' markets in the Greater Vancouver area while most farmers' markets are only open once a week in the summer season. The accessibility may be the explanation for the survey results. If the Agora introduces more local or seasonal vegetables and hot foods, it is predicted that more individuals would indeed come to Agora to eat.

Research

a) Previous AGSC 450 Project Papers

AGSC 450 students from year 2005 recommended that there needs to be an increase of awareness and knowledge about UBC Farm so that more support can be obtained from the faculty as well as the LFS community. There are currently 30 UBC courses offered that involves the UBC Farm (Group 4, 2005); one of them is actually a collaboration between the UBC Farm and a

Commerce class from the Sauder School of Business – COMM 468. In order to further strengthen the link between the LFS community and UBC Farm, some students from year 2005 also suggested that one of the AGSC classes (AGSC 250, 350, or 450) should offer an opportunity for students to choose between working as volunteers on the farm or writing the final exam.

This year, our group's main interest is the implementation of seasonal foods from UBC Farm into Agora's menu. Thus, it is valuable to look at some of the findings done by last year's Group 3 students. They were looking into incorporating some of the seasonal produce from UBC Farm into Bernoulli's Bagels' menu. Bernoulli's Bagels is a food outlet under the Alma Mater Society (AMS), and they felt that it would be much easier to obtain students' input and comments afterwards (Group 3, 2006). They contacted Nancy Toogood, the manager of the AMS Food and Beverage Department, as well as Greg Rekken, UBC Farm's Production Coordinator, and they came up with some sample menus for Bernoulli's Bagels according to the produce available from UBC Farm such as, bagel sandwiches, bagel melts, and freshly squeezed fruits and vegetable juices (Group 3, 2006). This year, it would also be our group's attempt to provide some sample menus for Agora after analyzing the most updated produce availability from last year (Appendix A).

Group 6 from year 2006 analyzed the feasibility of incorporating some UBC Farm's products into Café Perugia and 99 Chairs. They mainly focused on food products like root vegetables, eggs and chicken (Group 6, 2006). One of this group's findings is that Café Perugia purchases eggs in liquid form, and prepares them using a microwave because they do not have any egg-frying facilities (Group 6, 2006). This group, as well as Group 13, also made a suggestion of building a root cellar on-site at UBC Farm in order to have off-season produce available on campus throughout the year (Group 6, 2006; Group 13, 2006).

Sage Bistro is a fine-dining restaurant located on the UBC campus. They contribute to about 7% of total food sales of UBC food services. They are also a participant of the UBC Biodiesel project; thus, by donating their used vegetable oil, in return, they do not have to pay for this service (Group 4, 2005). Group 4 students from year 2005 also concluded that, “In conversing with both John Flipse and Mark Bomford the outlook is generally optimistic about the Farm being able to provide the specialty items requested by Sage.”

b) Root Cellar

In order for the UBC Farm to increase supply to the Agora, our team have looked into the possibility of building a root cellar to increase storage space, as well as extending the shelf-life of produce. Therefore, root vegetables such as potatoes, onions and winter squashes can be stored at the Farm until Agora utilizes them. Root cellars are unheated, often underground, storage spaces for vegetables and some fruits (Food safety and food preservation, 2006). Some examples of root cellars are non-insulated basements, unheated garages, garden trenches, and holes dug into hillsides then lined with brick or concrete blocks (Food Safety and Food Preservation, 2006). Nevertheless, it is not feasible at the current stage to build a root cellar due to land and financial restraint. Moreover, there is currently an extra storage space available at the Farm that is adequate to accommodate additional produce (M. Bomford, personal communication, March 14, 2007). However, building a root cellar should be implemented in the long-run because it enables the Farm to store a large amount of produce if UBC Farm expands further in the future.

c) Campus University Farms from external sources

Using past papers (Group 4, 2004; Group 9, 2004; Group 2, 2005; Group 10, 2005) and the UBC Farm website, we looked at how other university farms handled and distributed their crops to their respective campus communities, in order to suggest possible recommendations for the UBC Farm

and Macmillan community, specifically Agora. Community-supported agriculture (CSA) programs and farmers' markets were popular distribution methods among various university farms (Group 4, 2004; Group 9, 2004; Group 2, 2005; Group 10, 2005). One university farm in particular, Evergreen State College Farm, in addition to selling their produce from a farm stand on the farm and a farm stand on campus, also provided produce to their campus restaurant (Group 9, 2004). Although these are all great ideas, the UBC Farm has already established a CSA program, as well as a farm market on the farm (UBC Farm, 2007b; UBC Farm, 2007c). In addition, the UBC Farm is already working on developing relationships with various campus restaurants. Thus these findings are not very helpful in providing further recommendations for the UBC Farm and the Agora.

d) UBC Farm and Agora Eats Café Data Trends

The UBC Farm production spreadsheet (appendix A) shows the seasonality of different produce groups. Several of the foods grown are not utilized in any of the Agora's menu. From the financial analysis data (appendix D), the Agora mainly purchases its produce from Broadway Produce which monopolizes 16% of its finances. Hopefully the percentage will move toward purchasing produce from the UBC Farm. One segment of purchases that will remain at Broadway Produce are the vegetables for Choo-You sandwiches/salads (appendix C), due to the Farm's seasonality of production. Nonetheless, berries harvested from the Farm in the summer can be frozen in the Agora's chest freezer to be used for smoothies and pies later in the fall and spring. Root vegetables such as potatoes, onions and winter squash can be stored at the farm until needed when the Agora opens (M. Bomford, personal communication, March 14, 2007). The Agora will stress to use predictable and heavily harvested products such as eggs, tomatoes, potatoes, winter squash, carrots, peas, garlic, onions, and beets for, special lunches, soups, breakfast items, baked

goods, and pies.

e) Recipe Development

The recipes suggested for Agora Eats Café is based on the UBC Farm productivity trends (Appendix A) and the feasibility of the Café's appliances. From previous actions, Agora is very interested in incorporating eggs from the Farm into its menu. The egg production in the fall term of 2007 will remain steadily at around ten to twelve hundred eggs per month (M. Bomford, personal communication, March 14, 2007). The intention for distribution is one third focused on faculty food endeavors. Keeping other community activities in mind, such as AGSC Undergrad Society weekly barbeques, the café will more or less inquire one to two hundred eggs per month. Agora presently included an Eggora Breakfast Special on their menu utilizing organic locally-produced eggs. Along with daily baking, Agora exploits approximately two dozen eggs per week (L. J. Jankola, personal communication, March 21, 2007). The numbers can increase to four dozen a week if the café will be implementing other egg dependent dishes. General development of other food items requires the consideration of simplicity of recipe procedures; cost of ingredients; and appliances available to cook, process, and store the products. The café possesses three working electric pans, one stove element, three-rack portable oven, one blender, two soup warmers, chest freezer, standup fridge, and glass fridge (L. J. Jankola, personal communication, March 21, 2007). The recipes considered are either cooked in a large pot on the stove element, or baked in the oven. Some of the soup recipes also require creaming soup in a blender (Recipezaar, 2007). These are listed in the Agora menu and sample recipe in appendix B and C. The soups and pies generally require at least one hour preparation, thus they can be made after closing hours and frozen in chest freezer. For this to function, the Agora needs to recruit perhaps an extra ten volunteers on top of the sixty to seventy existing volunteers. On specific set days (i.e. Monday afternoon and Wednesday

afternoon), several volunteers can specifically work on preparing soups and pies. Pie crusts can be easily assembled in large batches and frozen into smaller portions.

Guest Speakers and Group Discussion

This year, the AGSC 450 class received valuable information from guest speakers from the UBC Farm. Overall, the Farm is currently not very competitive on price or volume. For example, profits from berries and eggs are increasing each year, but profit from the fresh vegetables is declining each year. It is believed that there is a great potential at the UBC Farm. Since it is the last working farm in Vancouver city, it makes the Farm very special and yet different. Additionally, there is a large community at UBC, including students and faculty members. It is obvious that there is a demand level in the market that far exceeds the current supply level; therefore, an expansion of the farm would be ideal. There is also an increase in connections between the Farm and the UBC community, including Sprouts, AMS, Sage Bistro, Green College, St. John's College, and the Agora. The benefits of these campus connections include creating closer connections between the Farm and UBC students, as well as contributing to a more sustainable and local food system on campus.

Marketing/Advertisement for the Agora Eats Café

Previous marketing and educational strategies at the Agora included colorful posters, monthly newsletters, white board announcements, handouts, and faculty wide emails through Cathleen Nichols (L. J. Jankola, personal communication, March 21, 2007).. Posters were very effective in informing the public on new menu items; food specifications (i.e. organic, natural, local); and on-going fundraisers. The greater the creativity and coverage (i.e. many posters spread throughout the Macmillan building) of the posters, the greater the response from the public. This strategy was very evident in the Agora's March fundraiser for World Vision on raising funds for a

goat for third world countries (E. C. Chan, personal communication, March 21, 2007). Email announcements via Cathleen Nichols on weekly lunch special features were a success as well. The approach was fabricated weekly during the 2005-06 school year as a goal to remind and notify recipients about the nutritious, affordable and hearty meals that the Agora consistently cooks up. Monthly newsletters written by the Nutrition Education Coordinator (NEC) showed great interest throughout the first term of 2006-07 school years. There were no regular newsletters published for second term due to time and commitment issues. Newsletters were always focused on a fruit or vegetable for that specific month based on seasonality in British Columbia. The NEC determines the fruit or vegetable and explains in detail on its production location, availability, health affects and benefits, nutrition element, and much more. The publication always includes a recipe from Agora with nutritional facts (K. G. Gibson, personal communication, March 21, 2007). White board announcements were a quick and effective strategy to inform the public on daily specials/activities and prices. Handouts in the form of surveys were a way to connect Agora's customers to its services.

RECOMMENDATIONS

Our group's brief analysis of the linkage between the UBC Farm and the Agora Café emphasized that more research was still needed to be done. Our team developed recommendations to aid the future research concerning the improvement of this linkage. The following recommendations are directed towards the UBC Farm, the Agora Café and the 2008 AGSC 450 students:

- 1) AGSC 450 students in January 2008 and the UBC Farm should research more into different ways on how the UBC farm can have a year-round supply of produce. One of the major causes that hinder the linkage between the UBC farm and the Agora Café from being built is that the UBC Farm is lacking produce availability growing during the winter season. Group 3 from the previous

year have recommended building an underground root cellar; however, according to the UBC farm representatives, this idea is not very feasible due to budget and land restrictions. Therefore, it is also important to consider factors such as budget, land requirements, labor, produceability and practicability.

2) The structured surveys conducted were based on ease of compliance and thus over looked many areas. We recommend future AGSC 450 students to elaborate the survey such that participants are responding on equal levels. For example, the definition of ‘often’ is once a week for one person but three times a week for another. Clarification on such a term, along with categorizing participants (year in school, job position, number of years teaching, etc) can enhance the practicality of the survey.

3) It is recommended that the UBC Farm pronounces the Agora Café as the central distributor of the UBC Farm produce in order to practice sustainability through reducing the use of fossil fuels during delivery. Processing and sales of the UBC farm produce can also be done in the Agora Café or at a kiosk besides it, given that the UBC farm has to provide their own volunteers or staff.

4) 2008 AGSC 450 students should look more into the progress of the UBC Farm in equally splitting sales three between categories, which are: Saturday farm market, CSA and restaurants and campus such as AMS catering, the Agora Café and Sage Bistro. Currently, the split between these three categories is 68%-16%- 16% (Frye, 2007). However, the ideal split that the UBC Farm wants to achieve is 33%-33%-33% (Frye, 2007).

5) Taking into account the additions of food items on the Agora menu and difficulty level of the food preparation, the current 60-70 stable volunteers will probably be inadequate. We suggest perhaps two to three times a week allow the café to commence after closing (i.e. from 3-5pm) in which extra volunteers come and cook the freezeable dishes (i.e. soups, pies, quiche). This, of

course, will be the decision of the executive team to initiate and organize in which depends substantially on the number of volunteer responses and their availabilities.

6) Incorporating new dishes is always difficult to manage and unpredictable to calculate. Our group suggests that perhaps a menu sampling should be conducted. Due to time constraints, we were not fortunate to perform this task. The future AGSC 450 students and Agora executives may wish to promote UBC-linked food supplies in a tastier approach.

It is also recommended that the Agora Café provides constant promotional and educational tools to inform the customers more about the UBC farm and what it has to offer. These promotional and educational tools can be in the form of laminated signs by the register, poster series, newsletters and lunch emails. Furthermore, since products coming from the UBC Farm are more expensive, food prices at the Agora Café will also increase. Therefore, the tools mentioned earlier can help in informing customers as to why the cost of food has been increased. As well, a linkage between the grower/producer and the customer should be recognized. Perhaps pictures of the UBC Farm and its harvesters can be placed around the Café so that consumers are educated and fully aware of the background of their foods.

CONCLUSION

There is a relatively weak linkage between the UBC Farm and the Macmillan community. The food venues and food-related community events have not chosen UBC Farm as their food supplier; therefore, the UBC Farm has limited distribution channels to reach the consumers in the Macmillan community. In addition, UBC Farm lacks sufficient awareness among the members of the Macmillan community, as some students are not even aware of the existence of UBC Farm. The weak linkage between the UBC farm and the Agora Café is evident. The UBC Farm is not chosen by the Agora as a major food supplier because the Farm cannot meet the supply level of a

variety of produce needed to support Agora. The UBC farm is not very competitive on variety, price and volume compared to other providers; the demand level in the market far exceeds the current supply level of the farm. Currently, customers are not satisfied with the limited variety of foods provided by Agora: more hot food, local produce and animal products are desired. Furthermore, customers also support the Agora to purchase seasonal produce. Our main focus in this project was to strengthen the linkage between the UBC Farm and the Agora Café. In order to strengthen the linkage, the Agora should use seasonal, predictable and heavily harvested produce from the farm to add more variety of foods to the menu, and to adopt various marketing and educational strategies to attract customers to the Agora.

REFERENCES

- Faculty of Land and Food Systems. (2007). *About Us*. Retrieved April 12, 2007, from <http://www.landfood.ubc.ca/aboutus.htm>.
- Frye, Amy. "UBC Farm." University of British Columbia, AGSC 450 Guest Speaker Series Session. Vancouver, BC. 14 March. 2007.
- Food Safety and Food Preservation. (2006). *Root cellar storage*. Retrieved March 26, 2007 from <http://www.foodpres.com/cellar.htm>
- Group 4. (2004). *What are the perceptions of UBC customers regarding the price of food at UBC?* AGSC 450 Land, Food and Community III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 9. (2004). *The UBC farm: Forming market relationships*. AGSC 450 Land, Food and Community III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 2. (2005). *Economic Sustainability at the UBC Farm: exploring alternative crops, new partnerships, and long-term plans*. AGSC 450 Land, Food and Community III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 13, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 4. (2005). AGSC 450 Land, Food and Community III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 10 (2005). AGSC 450 Land, Food and Community III, Online course materials. UBC Faculty of Land and Food System, University of British Columbia. Retrieved March 13, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 3 (2006). *Food System Collaborative Project*. AGSC 450 Land, Food and Community III, Online course materials. UBC Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 6. (2006). *Incorporating seasonal BC food items into campus food provider menus* AGSC 450 Land, Food and Community III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Group 13. (2006). *UBC food system project_scenario 2*. AGSC 450 Land, Food and Community

- III, Online course materials. Faculty of Land and Food System, University of British Columbia. Retrieved March 11, 2007 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home
- Recipezaar. (2002). *Blender Quiche – or whatever you have in your kitechen left over*. Retrieved March 10, 2007, from <http://www.recipezaar.com/31342>.
- Richer , L., & Project Partners. (2007). *The University of British Columbia Food System Project: Scenario 2: Creating and Strengthening linkages between the UBC farm and the Macmillan community*. Vancouver: University of British Columbia, Faculty of Land and Food System.
- Stringer, E. (1999). *Action research* (2nd ed.). London: Sage Publications Inc.
- UBC Farm. (2007a). *About the UBC Farm*. Retrieved March 13, 2007, from <http://www.landfood.ubc.ca/ubcfarm/about.php>
- UBC Farm. (2007b). *CSA Box Program*. Retrieved March 13, 2007, from <http://www.landfood.ubc.ca/ubcfarm/csa.php>
- UBC Farm. (2007c). *UBC Farm Market*. Retrieved March 13, 2007, from http://www.landfood.ubc.ca/ubcfarm/market_garden.php
- UBCFSP Resources. (2007). Vision statement for a sustainable UBC food system: *Plain language version*. AGSC 450 Land, Food and Community III, Online course materials. UBC Faculty of Land and Food System, University of British Columbia. Retrieved March 26 from http://www.webct.ubc.ca/SCRIPT/agsc_450/scripts/serve_home

Appendix

University of British Columbia Farm Production Spreadsheet

APPENDIX A

Years	2006
-------	------

			Date											Grand Total
Category	Family	NameKey	Jan	Feb	Mar	May	Jun	Jul	Aug	Sep	Oct	Nov		
Berries	Berries	Strawberries					4,127	945						5,072
		Blueberries						619	413					1,031
		Raspberries						647						647
		Blackberries						66	246	39				351
		Currants						104						104
Berries Sum							4,127	2,380	658	39			7,205	
Eggs			264	954	775	276	1,083	623	410	416	336	123	5,258	
Flowers							367	578	299	190	69		1,503	
Fruits	Fruits	Apples						200	515	941	608	16	2,279	
		Peaches						555	453	469			1,477	
		Plums						56	157	409	121		744	
		Cherries						653	18				671	
		Pears								395	241		636	
		Misc Fruit								301	204		505	
		Apricots						208	27				235	
		Nectarines							111					111
Fruits Sum							1,673	1,280	2,516	1,173	16	6,657		
Herbs	Herbs	Herbs	3			24	480	598	419	661	466	7	2,657	
		Fennel				20	2						22	
		Rosemary					14						14	
		Savory					14						14	
Herbs Sum			3			44	510	598	419	661	466	7	2,707	
Vegetables	Salad Greens	Salad Mix		53		2,724	5,141	3,702	2,416	2,948	1,428		18,412	
		Arugula				546	256	326	189	150	46		1,512	
		Lettuce				17	862	234	172	67	86		1,438	
		Microgreens					60	75	55	155	30	30	405	
		Salad Greens					303	34			3		339	
	Solonacea	Potatoes					621	1,649	957	1,424	666			5,317
		Tomatoes						52	1,177	1,464	954	187		3,835
		Peppers						269	278	730	389	10		1,675
		Ground Cherries								146	518	264	33	961
		Eggplant								213	338	170		721

	Tomatilloes							79	81	53	4	217
Cucurbits	Cucumbers					162		603	860	481		2,105
	Winter Squash								481	1,278	252	2,011
	Squash					255		496	572	173		1,496
	Melons							458	660	121		1,239
Umbels	Carrots					562	1,569	1,583	1,639	1,452	63	6,868
	Fennel Bulbs							164	66	55	4	347
Brassicacae	Mustard Greens					202		66	189	51		544
	Cabbage							151	285	479	4	1,255
	Broccoli		12	67				498	132	223	75	1,211
	Kale	41	13	39		104	200	118	176	163	83	935
	Radishes					374	131	92	92	173	31	893
	Pac Choi					452	113		62	139	15	780
	Turnips					65	48	123	132	42		409
	Kohlrabi							8	57	128		296
	Cauliflower			35				69	8	4	100	217
Allium	Garlic							625	1,500	1,331	138	4,134
	Onions					310	379	356	583	425	22	2,074
	Leeks	6		11					376	274	12	680
	Garlic Scapes					120	30					150
Legumes	Peas					144	1,590	23	146	563	3	2,469
	Beans							255	723	521	49	1,548
	Soybeans								32	70		102
Misc	Misc Vegetables			12							78	90
Cynara	Artichokes				20	271	96					387
Polygonaceae	Rhubarb				2	103	143	37				283
Chenopodaceae	Beets	9				621	1,250	1,064	853	360	7	4,162
	Swiss Chard					314	450	254	360	170		1,548
	Spinach			79	85	537						700
	Sorrel					35	142	91	124	93		484
Poaceae	Corn							474	1,207	186		1,867
Vegetables Sum		56	77	243	3,393	11,456	14,730	14,443	19,058	11,605	1,054	76,115
Grand Total		322	1,031	1,017	3,713	17,543	20,582	17,508	22,879	13,649	1,200	99,446

APPENDIX B

A student-run café serving wholesome, affordable food to the UBC community



Striving to use locally supplied ingredients since 2004!

Hours of Operation

Monday to Thursday, 9:00am to 3:00pm

Friday, 10:00am to 1:00pm

Ask about our Lunch Special!

BAKED GOODS & SNACKS

Fresh Baked Goods
...made daily in our very own convection oven.
\$1.00

Day-Old Baked Goods
\$0.50

Snack Bars
\$1.00

Fruit Cups
\$0.75

Organic Fresh Fruits

Apple - \$0.50

Banana - \$0.75

BEVERAGES

Fair Trade Organic Coffee	\$1.00
Fair Trade Organic Tea	\$1.00
Hot Chocolate	\$1.00
Organic Milk or Soymilk	\$1.50

Organic Santa Cruz or Sweet Apple Cider	\$1.25
Juice Boxes	\$1.00
Bottled Juices	\$1.00
Bottled Water	\$1.00

Menu items and prices are subject to change without notice.

A Green Tax of \$0.25 per disposable container will be added to your take-out order. We encourage the use of travel mugs & tupperware.

Agora strives to purchase from local, privately/family owned grocery stores such as Choices Markets, Parthenon, Big Apple, and Broadway Produce.



Suggestions or Comments?

E-mail us:

Call us:

AGORA EATS!

BREAKFAST

to warm you up in the morning...

Breakfast Special

Whole wheat English muffin, UBC farmed eggs, cheese.

\$2.50

Add meat for \$1.00 more

Cheesy Crustless Quiche

UBC Farm eggs, local meat, natural cheese, and assorted of vegetables. Served with mixed green

salad

\$4.00

the "Frugranogurt"

Dry granola topped with fresh seasonal fruit and yogurt.

\$3.00

Fruit Smoothie Sensation

Customize your own smoothie.

Choose 1-3 fruits and

2 liquid bases, blend them up, and voila:

A special smoothie just for you!

Fruits: Banana, Peach, Pineapple, Strawberry, Blueberry...

Bases: Organic Milk, Organic Soymilk, Juice, Organic Yogurt

\$2.00

Organic Cereal Selection

Served with organic milk

\$2.00



LUNCH

to give your body a good start...

Lunch Special

(once a week only)

As advertised, while supplies last.

See sign at front counter

PB & J

...add banana for \$0.50.

\$1.00



SOUPS!

Varies on day to day basis

\$3.00

Our selection...

Carrot Potato

Creamy blend of UBC Farm carrots, potatoes and onions slowly simmered in vegetable broth, milk and tarragon

Tomato Vegetable

Chunky assortment of UBC Farm tomatoes, carrots, onion and potatoes simmered along with celery, zucchini, and corn.

Sweet Pea Soup

Creamy blend of UBC Farm peas, potato, and onion simmered till tender, pureed till smooth. Garnished with rustic lemon herb

the "Choo-You"

Customize your own lunch entrée.

Start with a basic veggie sandwich, wrap or salad and add extras as you please!

\$2.00

- Veggies: cucumbers, green peppers, lettuce, red onion, sprouts, tomatoes. Add avocado for \$0.50. Double-up all veggies for \$0.50 (excl. avocado).
- Cheese: as advertised, while supplies last. Add \$1.00 per cheese.
- Deli meat: as advertised, while supplies last. Add \$1.00 per meat.
- Condiments: mayo, mustard (regular or honey), sweet thai chili sauce.
- Salad dressing varies but will consist of at least two choices; one creamy, one vinaigrette.



PIES!

Varies on day to day basis

\$3.00

Our selection

Roasted Winter Squash

Fragrantly roasted UBC farm winter squash mixed with organic milk, UBC farm eggs, ginger, cinnamon and nutmeg poured into homemade pie shell.

Mixed Berry

UBC farm grown strawberries, blueberries, and raspberries frozen from the summer baked into tender goodness in a homemade pie shell

Agora Recipe Samples

CHEESY CRUSTLESS QUICHE

24 servings

Agora Eat's Café
2007

3 cups shredded cheese (any type)
 1 ½ cups cooked and cubed chicken meat, ham, bacon (whatever is available)
 1 ½ cups assortment of zucchini, spinach, broccoli, onion or carrots (whatever is available)
 10 UBC farm eggs
 1 ½ cup Bisquick baking mix
 1 tbsp salt
 1/3 cup chopped fresh or dried parsley
 4 ½ cups milk
 ¾ cup olive oil
 1 tbsp paprika

Preheat oven to 350 degrees F. Generously grease two 8x11 pans. Spread shredded cheese across bottom of pie pan. Cover cheese with cooked meat and vegetables. In a large mixing bowl, whisk together eggs, Bisquick, salt, parsley and milk. Mix until smooth and add olive oil. Blend until combined and pour mixture over meat/vegetable layer. Evenly sprinkle with paprika. Bake in preheated oven for 40 minutes. Cool 10 minutes before serving. Cut each pan into 12 even pieces

Freezing Instructions:

Cool completely, wrap pan in saran and then foil, and store in deep freeze. Reheat at 350 degrees F until centre of quiche is very hot.

(Recipezaar, 2007)

CARROT POTATO SOUP (VEGETARIAN)

18 servings

1/3 cup butter, melted
 3 medium onion, chopped
 3 cloves garlic, minced
 4 cups carrots, sliced
 4 potato, peeled and diced
 3 (10 ounce) can vegetable broth
 4 ½ cups water
 1 tbsp salt
 1 ½ tsp dried tarragon leaves
 ¾ tsp pepper
 3 cups milk

In a large pot sauté onion and garlic in butter for 5 minutes on a stove element turned to high heat. Add carrots and potatoes, stir to coat with butter. Add vegetable broth, water, salt, tarragon and pepper. Cover and simmer over medium heat 30 minutes or until vegetables are well cooked. Puree soup in batches in blender until smooth. Pour into soup warmer to serve immediately

Freezing Instructions:

Pour pureed soup into large tubberware containers, cool to warm. Then seal tightly and store into freezer. To reheat the soup, dump whole frozen soup from container into soup warmer turned on high. Watch soup and stir often until it is completely melted, may take 15-25 minutes.

(Recipezaar, 2007)

Agora Financial Analysis Data Fall 2006 – Spring 2007

Figure 1: Agora Grocery Breakdown from Sept. 2006 to Feb. 2007

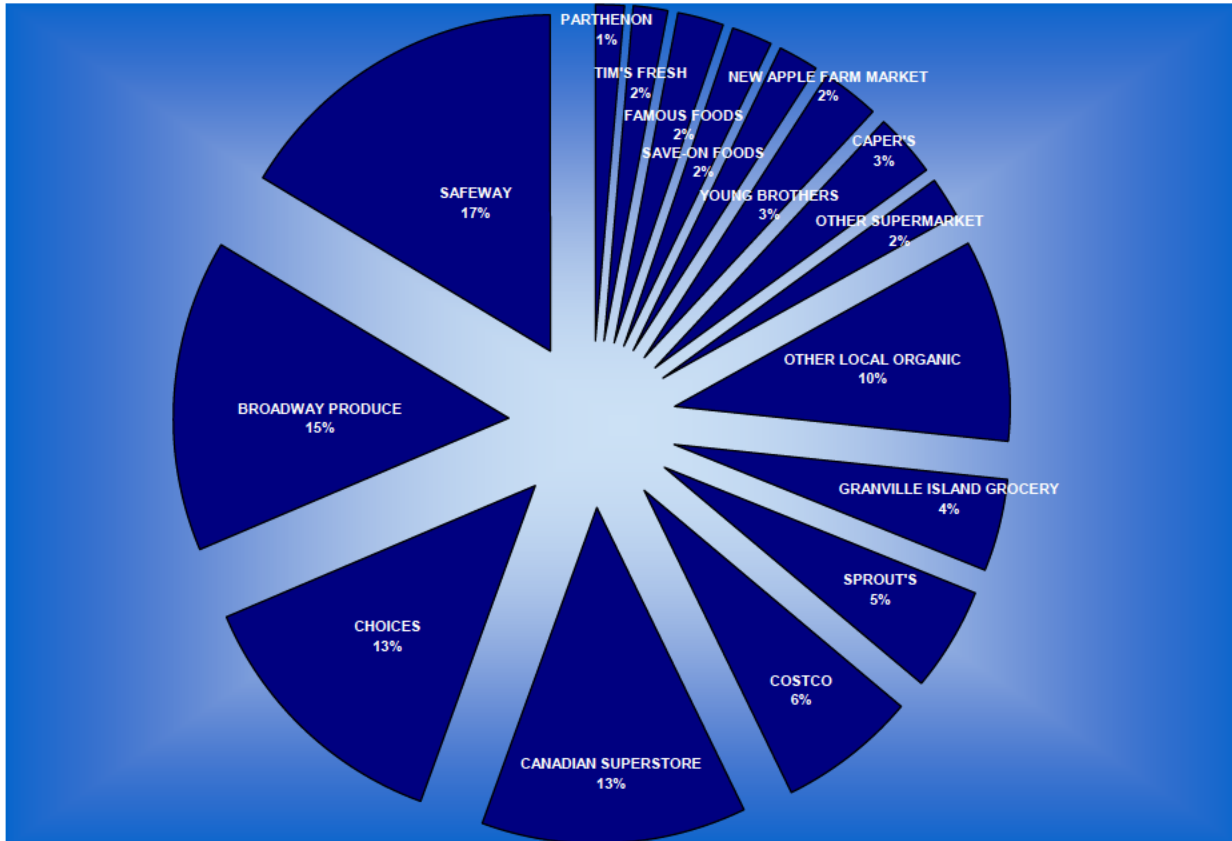
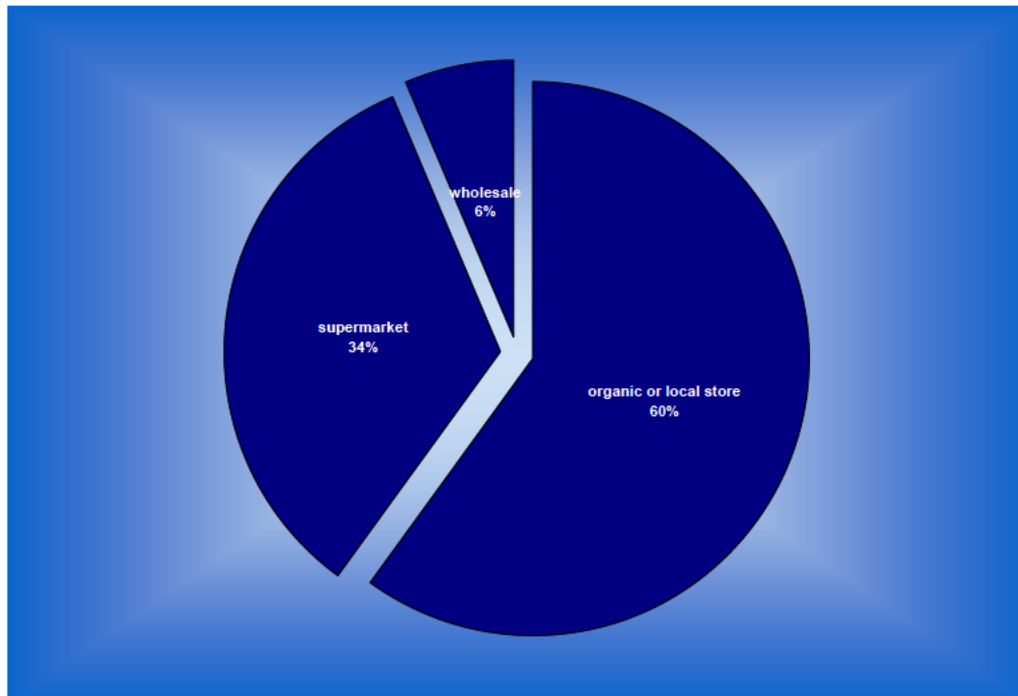


Figure 2: Agora Supermarket, Wholesale and Organic/local Store Breakdown Sept. 2006 – Feb. 2007



Agora Potential Supply Survey Analysis and Sample

Agora Potential Food Supply Survey		Never	Rarely	Sometimes	Often	Always
Question – Please rank from least to most						
1.	How often do you visit Agora Café?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	How often do you eat vegetables (ie. lettuce, tomato, cucumber, green pepper)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	How often do you purchase seasonal produce?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	How often do you visit and purchase from a local farmer’s market every month?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	Do you support Agora purchasing seasonal foods?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	Comments and suggestions for Agora’s menu selection and food suppliers	_____				

Results for Survey Findings

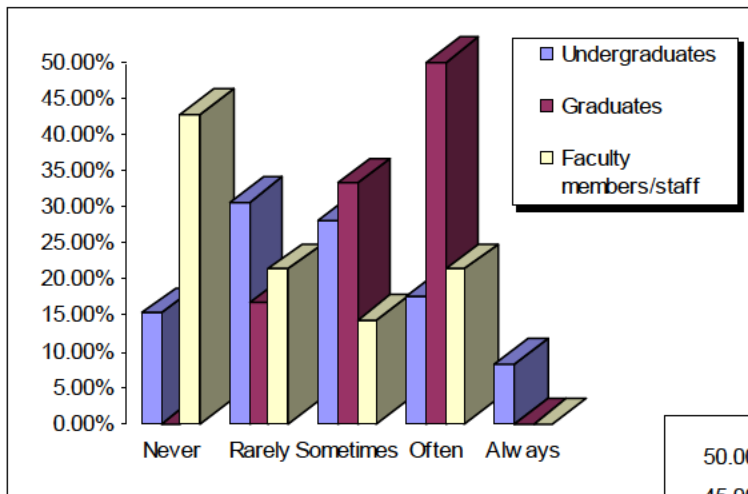


Figure 1: Question 1 – Percentage of visitation to Agora

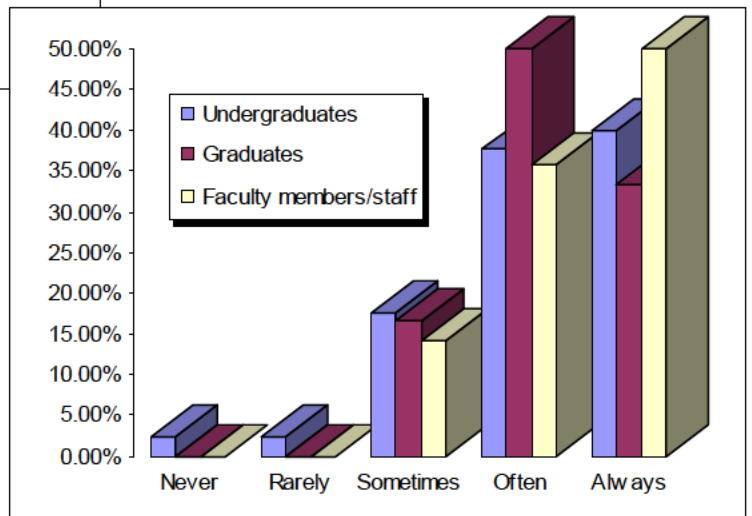


Figure 2: Question 2 – Percentage of recipient’s consumption of vegetables

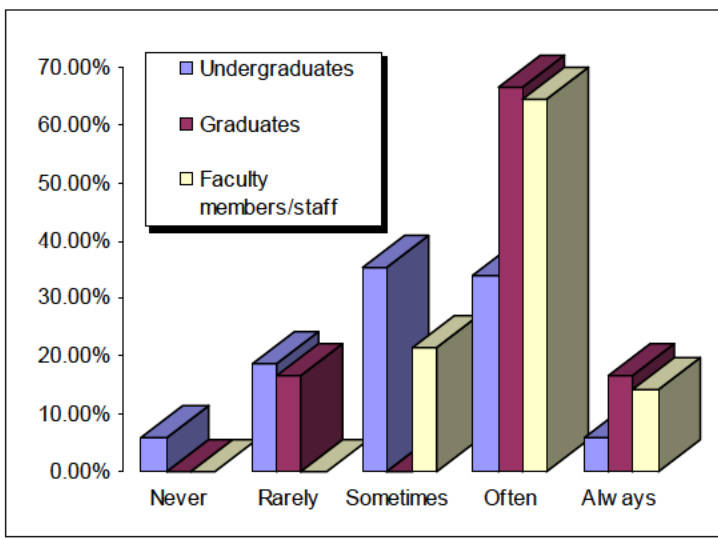


Figure 3: Question 3 – Percentage of seasonal food purchasing by recipients

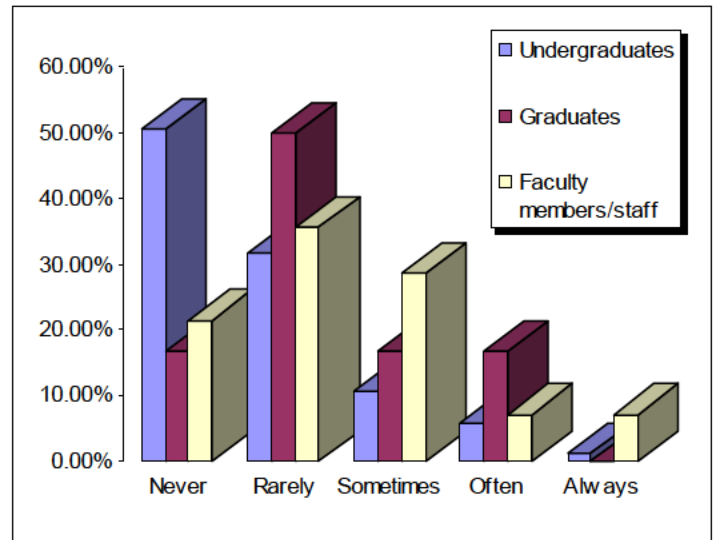


Figure 4: Question 4 – Percentage of local farm market visitations

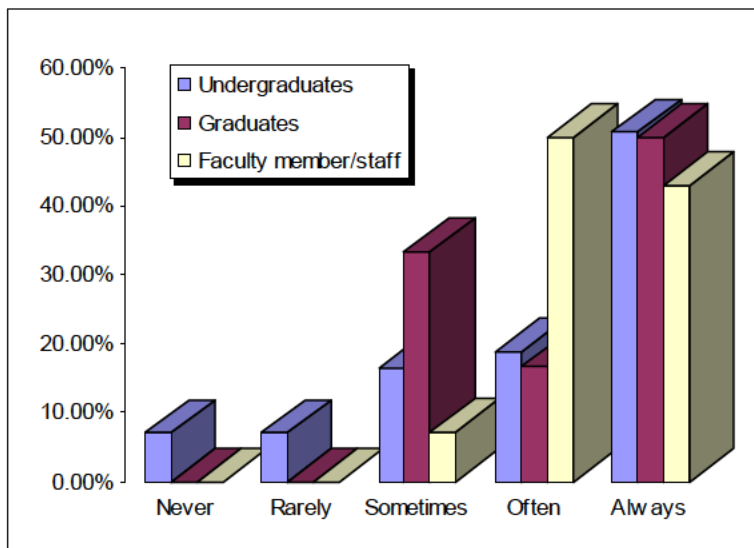


Figure 5: Question 5 – Percentage of support for Agora purchasing local produce

Agora Eats Café Advertisement Poster Sample

AGORA EATS!

Located @ MCML Downstairs Basement

Café

OPEN 9-3PM (M-T), 10-1PM (F)

New Menu Item!



CHEESY CRUSTLESS QUICHE



Try our oven baked quiche featuring UBC Farm eggs and assorted mixed vegetables.

Energetically infused together with deli meats, local cheese, and organic milk!

Served with salad greens.

Feeling EGGhausted from everything? This hearty meal can boost your metabolism and add extra omega 3 fatty acids, vitamin B₁₂, and calcium!