

UBC Social Ecological Economic Development Studies (SEEDS) Student Report

Practicing Urban Agriculture Right Here: Integrating the LFS Garden with the Faculty of

Land and Food Systems Community: Management, Resources, and Budget

Carl McBeath, Jill McDowell, Graham McLeod, Christine McMahon, Marnie Melsted,

Carrine Thunggawan

University of British Columbia

AGSC 450

April 10, 2009

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".



Faculty of Land and Food Systems
Grounded in Science | Global in Scope

**UBC Food System Project (UBCFSP)
AGSC 450: Winter 2009**

Scenario 4a:

*Practicing Urban Agriculture Right Here:
Integrating the LFS Garden with the Faculty of Land and Food Systems Community:
Management, Resources, and Budget*

Group 17:

Carl McBeath

Jill McDowell

Graham McLeod

Christine McMahon

Marnie Melsted

Carrine Thungawan

TABLE OF CONTENTS

Abstract.....3

Introduction.....3

 Problem Definition.....4

 LFS Garden in the Context of the Broader Food System.....6

 Reflection on UBCFSP Vision Statement.....6

Methodology.....7

Findings.....12

 Management.....12

 Budget.....14

 Funding.....14

 Resources.....17

Discussion.....18

 Management.....18

 Budget.....21

 Funding.....21

 Resources.....23

Recommendations.....24

 LFS Orchard Garden Committee.....24

 LFS Orchard Garden Coordinator.....25

 Future Land, Food, and Community Students.....25

 AGSC 450 Teaching Team.....26

Conclusion.....26

References.....27

Appendix.....29

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

ABSTRACT

As part of UBC Food System Project, our group was given the task of examining specific challenges that the Land and Food Systems Orchard Garden (LFSOG) presently encounters. The objective of scenario 4a is to provide LFSOG with the information, tools and manpower needed to successfully move forward and reach its full potential. The garden is an excellent educational tool that can be used to connect the land and food systems. It is also a space where UBC faculty and students can come together to try and achieve the LFS vision statements. Our group was given the task of researching, discussing and making recommendations surrounding issues of the garden management. Including management plans, budgeting, funding and resources. This was accomplished first by reviewing the vision statements of the LFS faculty. With these visions in mind the group gathered findings and then discussed each task in detail. It was determined that in order for the garden to successfully expand, an organized and well thought-out management plan was need.

INTRODUCTION

The University of British Columbia Food System Project (UBCFSP) is a collaborative, community-based action research project that began in 2001 through the efforts of the UBC Faculty of Land and Food Systems and the Sustainability Office's Social Ecological Economic Development Studies Program (SEEDS). UBCFSP is an essential educational learning tool used in Agricultural Science 450: Land, Food and Community III course, a mandatory course for all 4th year students in Faculty of Land and Food Systems. This project involves multiple partners and collaborators from UBC Food Services (UBCFS), AMS Food and Beverage Department

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

(AMSFBD), UBC Waste Management (UBCW), Centre for Sustainable Food Systems at UBC Farm, UBC Campus and Community Planning, Sauder School of Business classes, UBC Sustainability Office (SO) and its Social, Ecological, Economic, Development Studies (SEEDS) program, and the Faculty of Land and Food Systems (FLFS) (Richer, Rojas & Project Partner, 2009). UBCFSP aims to be a realistic, community driven learning tool that allows students, faculty, staff, community members, and food service stake holders at UBC to identify the challenges, create a shared vision, and implement initiatives related to transition towards a sustainable UBC food system (Richer, 2009).

PROBLEM DEFINITION

The LFS Orchard Garden (LFSOG) is one focus of the 2009 UBCFSP. The LFSOG is a micro-model of urban sustainable food production, which provides food to the LFS community, including Agora Café and Agricultural Undergraduate Society, community dinners, UBC Farm. The garden also creates a hands-on learning opportunity for students, faculty, and staff so they can work together on issues surrounding local and global food system through participating in the garden. The existence of the garden enhances UBC Vancouver campus's contributions to an ecologically, economically, and socially sustainable urban food system. Ecological sustainability is achieved by increasing access to local foods and decreasing the dependence of food from distant regions, which in turn helps decrease food-miles. Supplying fresh, healthy, organic vegetables and herbs to Agora Café and AGUS Wednesday BBQ for a lower financial and environmental price, promotes economical sustainability. Furthermore, this garden provides a meeting place for individuals from across campus that can help to build social interaction, act

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

as demonstration site, and teach people how to manage an urban garden, or simply enjoy the beautiful green space and fresh air.

The responsibility of Scenario 4a of the UBCFSP 2009 was to continue with the development and implementation of an action plan that is meant to enhance and expand the functionality of LFSOG. Additionally, this work should also bring a new perspective to the garden space, while also promoting urban agriculture (UA) to the UBC community and surrounding communities.

In 2009, the proposal for further development of the LFSOG was conducted as a collaborative work by three groups of AGSC 450 students. Unlike previous years, where the groups each worked separately on all assigned tasks and the challenges associated with them. This year the tasks were divided amongst the three groups, which allowed for more focused and outcome related goals. The hope is that each garden task will be intensely researched and outcomes will be clear and obtainable. This years tasks were to address and establish a harvesting, planting and distribution plan, garden layout, waste management system, educational opportunities, community outreach and garden management, resources and budget. The goal was that each group would work on there specific tasks, while still staying closely connected with the other two groups, so that the final work of each group would be a collaboration of information and ideas.

Our group's task (Group 17) was to develop a functioning management plan. The plan is to detail who will be responsible for proposed production, harvesting, distribution, and building activities, along with investigating and proposing a list of supplies and materials needed to maintain the garden, as well as, funding and budget information. We hope that with our efforts,

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

along with the collective efforts of the other two groups, the garden will be equipped with the theoretical tools needed to improve functionality. Our work will hopefully supply support needed for future development and expansion.

THE LFS ORCHARD GARDEN IN THE CONTEXT OF THE BROADER FOOD SYSTEM

Universities play an important role in initiating and mediating change. Practical application of current ideologies and research demonstrates the importance of an issue, which in turn can alter society's values and attitudes toward a situation. The UBCFSP is one of the many projects contributing to the University's pledge to make sustainability a foundational element of campus operations, research, and teaching (UBC Sustainability Office, 2008). Overall, the UBCFSP attempts to build a bridge between financial, ecological, and social sustainability. The LFSOG is an education tool that demonstrates green gardening techniques, integration of urban agriculture into local food systems, as well provide the community with a visual example of a carbon sink. The garden contributes to increasing human and ecological health, and sustainable land and food systems, which are of concern at the local, national, and global level (Richer, Rojas & Project Partner, 2009)

GROUP REFLECTION TO THE VISION STATEMENT OF THE UBCFS

Collectively as a group we agree and embrace all seven vision statements. Throughout our education, in various LFS programs, we have come to an understanding that these statements are vital to the success and sustainability of any food system. Our ideas and beliefs are viewed through the lens of weak anthropocentrism. Our opinions may potentially be biased, based on our AGSC 250/350/450 influences, but we believe that human and ecological health should be at

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

the forefront of our decisions. It is important to note that these are not two separate issues, and both need to be addressed simultaneously, whenever possible, in the decisions we make. By preserving the natural world we ultimately enrich human life.

The overarching goal of a sustainable food system is to protect and enhance the diversity and quality of an ecosystem and to improve social equity. Although we agree with all the vision statements we believe that the following can be further discussed to improve the practicality of the goals.

As a group we believe statement 1) Food is locally grown, produced and processed and statement 3) Food is ethnically diverse, affordable, safe and nutritious contradict each other. We are aware that these statements are important components of food security, but we live in an ethnically diverse community and are limited in what can be produced from Canadian soils. By including conditions to the statements, such as, “as much as possible” the probability of successfully reaching the goals will be increased. We agree with statement 5) Food brings people together and enhances community, but unfortunately, many of UBC food service outlets oppose the realization of this statement, as most are fast food establishments. We see that UBC Food Services currently is not setting the best example, and designing more communal eating environments will aid in making this a statement a reality.

METHODOLOGY

Instead of researching every component of the LFSOG business proposal, the 2009 AGSC 450 students assigned to the scenario broke up the proposal by collectively grouping similar tasks and randomly assigning each research area to a group. The three areas of focus were: management, resources, and budget; community outreach and education opportunities; and

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

production plan, distribution plan, harvesting plan, waste management plan and layout. Although each group had a narrowed research scope it was agreed that collaboration was fundamental for successful improvement of the LFSOG.

As mentioned earlier, our group was investigating information relating to management, resources, and budget. Attending AGSC 450 lectures by UBCFSP partners and collaborators helped our group to obtain and expand our knowledge related to the overall project. Our preliminary research included reviewing the AGSC 450 UBCFSP reports from the previous year to determine what we already knew about the project, what had been recommended, and what information was still required. New information was mostly gathered from Garden Committee members (Appendix B), the LFS Learning Centre, UBC Career Services and other AGSC 450 students via e-mail communication, in-class discussions, and interview and meetings that occurred outside of class time.

The following pages outline who we spoke to, the method of communication, and the subjects discussed:

Name: AGSC 450 Group 16

Orchard Garden relation: Scenario 4a of 2009 UBCFSP

Method of communication: personal contact

Discussion subjects: Methods for bringing in human resources via education opportunities and community outreach, topics related to management, resources and budget

Name: AGSC 450 Group 18

Orchard Garden relation: Scenario 4a of 2009 UBCFSP

Method of communication: personal contact

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

Discussion subjects: Compost, need resources, production, harvesting, distribution, waste management

Name: AGSC 450 Fence Scenario Group

Orchard Garden relation: Scenario 4b of 2009 UBCFSP

Method of communication: personal contact (25/02/09/, 18/03/09)

Discussion subjects: Integration of the fence into the vision of the garden

Name: Jian Hui Cheng

Orchard Garden relation: Garden Coordinator

Method of communication: e-mail (4/02/09, 19/03/09), personal contact (11/02/09, 5/03/09, 26/03/09)

Discussion subjects: Volunteers, resources, budget/sales, and distribution to: UBC Farm, Agora, AgUS, and LFS Community Dinner

Name: Andrew Riseman

Orchard Garden relation: LFS faculty representative on Garden Committee

Method of communication: personal contact (10/03/09, 25/03/09), e-mail (02/04/09)

Discussion subjects: Vision of the Garden, current management, current state of documentation, possibility of a website/blog, relationship with the UBC Farm, future expansion of the LFSOG, funding, work-study programs, and student directed studies

Name: Mark Bomford

Orchard Garden relation: Farm Operation Manager

Method of communication: e-mail (09/03/09), phone interviews

Discussion subjects: Orchard Garden and UBC farm relation, funding, grant proposals, application information for GCC grant

Name: Brenda Sawada

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Orchard Garden relation: Manager UBC SEEDS Program Sustainability, UBC Land and Building Services

Method of communication: e-mail (16/03/09), phone interviews

Discussion subjects: Role in the Orchard Garden committee, funding, sustainability coordinators, and work-study programs

Name: Cyprien Lomas, Duncan McHugh, and Edmund Seow

Orchard Garden relation: LFS Learning Centre

Method of communication: Personal contact (23/03/09)

Discussion subjects: Steps to setting up a website/blog, vision of the website, what is possible/manageable, functionality of site

Name: Art Bomke

Orchard Garden relation: LFS Faculty Representative

Method of communication: e-mail (16/03/09), personal contact

Discussion subjects: Role in the Orchard Garden committee, funding options, Grad Class Council gift

Name: Alejandro Rojas

Orchard Garden relation: FLSF

Method of communication: personal communication (01/04/09)

Discussion subjects: Vision of LFSOG

Name: Jeff Nulty

Orchard Garden relation: Landscape Designer, UBC Land and Building Services

Method of communication: e-mail (16/03/09)

Discussion subjects: Role in the Orchard Garden committee

**UBC Food System Project (UBCFSP)
AGSC 450: Winter 2009**

Name: Morgan Reid

Orchard Garden relation: LFS Learning Centre Representative

Method of communication: e-mail (16/03/09)

Discussion subjects: Role in the Orchard Garden committee

Name: Liska Richer

Orchard Garden relation: Orchard Garden Committee member

Method of communication: e-mail (16/03/09)

Discussion subjects: Role in the Orchard Garden committee

Name: Kathy Ho

Orchard Garden relation: AgUS Vice-President

Method of communication: e-mail (16/03/09)

Discussion subjects: Role in the Orchard Garden committee

Name: Vanessa Perrodou

Orchard Garden relation: AGORA Manager

Method of communication: e-mail (16/03/09), personal contact (18/03/09)

Discussion subjects: Role in the Orchard Garden committee, AGORA summer coordinator

Name: Martin Hilmer

Orchard Garden relation: LFS Faculty Staff Representative

Method of communication: e-mail (16/03/09)

Discussion subjects: Role in the Orchard Garden committee

Name: Christine Harris

Orchard Garden relation: Development Coordinator - LFS Office of the Dean

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Method of communication: e-mail

Discussion subjects: Grant and funding advice, Grad Class Council Gift grant information

Name: Staff member at Career Services

Orchard Garden relation: Potential source of funds for the garden

Method of communication: phone interview

Discussion subjects: Summer Work/Study programs for students

FINDINGS

Through communicating with the various LFSOG committee members and stakeholders, and through researching the past AGSC450 UBCFSP papers, we were able to compile various findings pertaining to the garden. The findings are categorized under management, resource, funding, or budget in this section.

Management

Currently there is a Garden Committee that is comprised of community partners who support and oversee the management of the garden. This committee works together behind the scenes, to oversee the production and management of the garden, as well as to provide direction and support to the garden laborers. Please see (Appendix B) for a complete list of all garden committee members, including their contact information and their connections to the garden.

We found that the LFSOG management plan needs restructuring and additional strategies to facilitate better communication and organization amongst stakeholders and garden workers.

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Additionally, we found that there are issues surrounding the fluidity of management and that there is potential for a high turnover rate of garden managers because of university scheduling.

Through communication with stakeholders and past garden management, it was made very aware that development of a website specifically for the LFSOG would be a major asset in the organization and fluid functioning of the garden. We hope that with our proposed plan and website ideas can improve organization and conduct of the management plan. Due to time constraints we are only proposing the ideas of a website and unfortunately are not able to physically design one. We hope that next year's group can make this the focus of their project.

By researching other garden-related websites such as the City Farmer website, we were able to foresee what potential information could be included on the LFSOG's future website. We used the City Farmer website as a prototype to come up with what we think would work best with the LFSOG website.

It has been found that a structured management team and garden committee is essential to the future of the garden, as these organizations will provide upkeep and legitimacy to the garden. A complete job description of last year's Garden Coordinator (GC) has been provided. It was found that the previous GC, Jian Hui Cheug, fulfilled all roles and duties described in the description. See (Appendix B) under Jian Hui Cheug contact information for the job description. This job description was used to develop this year's project management plan.

This year's management plan will establish garden management scenarios and a management plan timeline. The plan will provide details of who will be responsible for the proposed production, harvesting, distribution activities, community outreach, and general maintenance

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Budget

We found a proposed budget that focused on costs of the garden. This budget was used to apply for potential grants aimed to cover garden expenses. We also noted that some of the proposed costs were not actually spent, for example the compost bin was not built last year. Research was done to see if we could incorporate potential profits made from the garden into the budget, but found the production of the garden was too varied to guarantee affixed amount.

Funding

The LFSOG is moving into its second stage of development, and funding is required for its continued success. Funding will help obtain resources for materials, including plants, tools, and soil testing. Securing funding will also help pay for student work/study programs, as well as a much needed GC to oversee production and management of the garden. The GC's duties also include organizing, training, and supervising students and community volunteers. This year with a new fence, (The Fence Project) as well as perennial plants being erected around the garden, the need to hire a GC is of the utmost importance.

The objectives of our research were to discover if any funds were available, what funds were obtained in previous years, and how to secure funding for the coming year. Our methods to secure funds for the garden included searching for applicable external and internal grants, and working through the application process. Accomplishing these tasks involved, contacting numerous stakeholders who were either directly or indirectly involved with the garden.

Last year's group was able to secure a Grad Class Council Gift (GCCG) through the AMS. This is where we started out search for potential funds for the orchard garden. By

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

searching the AMS website we also found that the garden had the potential to receive the innovative project fund (IPF). The IPF could provide the garden with 3,000 to 5,000 dollars for up to three years. If the garden receives IPF funding it will have to resubmit an application in the following year, along with a 12 month progress report of how the funds were spent in order to receive future funding.

Mark Bomford, the UBC Farm Coordinator, generously invested his time in replying to our emails, and providing us with pertinent information in obtaining funding. Mark believes that the LFSOG and UBC Farm should be applying together for both internal and external funding because he envisions the LFSOG as an extension of the UBC Farm. He stated that he did not want each to apply for funding separately as this would create unnecessary competition. Competition may decrease funds available for both projects. Mark informed us that the UBC Farm relies on grants, as well as donations to maintain operations. This includes wages for staff and any teaching, research or community services that the farm provides. He noted that income from market sales does provide some income, but does not cover all costs. We discussed the fact that joint application for funding may help both projects receive more financial support in the future. Mark advised he was happy to identify these opportunities as they arise, as well as advising or assisting in preparations for proposals students may find. He also provided information regarding: how to apply for outside funding, recommendations for creating a budget, as well as suggestions for a proper business plan. He advised that tools be purchased new, as donated tools are often poor quality and easily break. We discovered that AGRO 260 has a practical component where students work at the UBC Farm and LFSOG. Also Mark mentioned that he has been working with faculty members in organizing a practicum for other Agroecology courses.

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

Brenda Sawada, the manager of SEEDS UBC, informed us that presently funding is not available through SEEDS for the LFSOG. However, she mentioned that a new summer work/study program would be available for students this year, and directed us to UBC Career Services (UBCCS). She also mentioned that it would be wise to find a Sustainability Coordinator for the garden.

We contacted the Sustainability Office inquiring if the LFS program had a Sustainability Coordinator. We were directed to Terra, a Sustainability Coordinator with SEEDS UBC, who informed us that presently there was not an active Sustainability Coordinator in the LFS program. She advised that a new Sustainability Coordinator could sit on the Garden Committee. She also mentioned that a new funding program was starting in the near future with \$15,000, from a recent donor, available for projects that promoted sustainability.

We discussed applying for an external grant for the UBC Farm and LFSOG with Andrew Riseman, a LFS faculty representative on the Garden Committee. Unfortunately the deadline was too soon, giving us inefficient time to prepare a proper proposal. We informed Andrew of pertinent information regarding the new summer student work/study program at UBCCS, including deadline dates for posting the jobs, as well as the wage that would be subsidized by UBCCS. Andrew also gave us input and important information for our proposal, as well as a budget for the GCCG.

Art Bomke, a LFS faculty representative on the Garden Committee, edited and approved our proposal for the GCCG, as well as asking for Mark Bomford's comments and suggestions before we submitted the proposal. He also recommended we speak to Andrew Riseman for the

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

final approval of the proposal. He was also responsible for coining the new "Living Fence" title for the GCCG proposal.

Christine Harris, LFS Development Coordinator, offered her advice on applying for external grants. She also proofread our grant proposal giving excellent comments and advice on how to improve it, and is willing to provide the same support in the future. UBCCS informed us of a new summer student work/study program, and explained what was involved in the process. Students involved in this program must be enrolled in 6 credits over the summer or paying full time fees as a graduate student. The faculty can apply for many student positions, and UBCCS will pay \$9.00 an hour. However, the faculty is responsible for providing enough to make the wage at least \$12.00/hr. The student is also only allowed to work up to a maximum of 10 hours per week and can earn up to \$3,000 for the summer.

Resources

After discussions with Jian Hui Cheng, we were able to determine what the garden's current inventory of tools. The garden currently has access to a wheelbarrow, two shovels, a vineyard hoe, a diamond shovel hoe, a slim draw hoe, two Rubbermaid totes, a garden hose, two overhead sprinklers, a brass 4-way hose splitter, a rake, and a carrot fork. New items that are needed at the garden are another wheelbarrow, hoes, more garden hoses, and more Rubbermaid totes

The other aspect of resources that the garden has or needs is human resources. Currently one of the best human resources that the garden has is the help from the LFSOG committee members and stakeholders. By being able to outreach and communicate with the various stakeholders of the garden, such as Vanessa Perrodou, the Agora manager, and Brenda Sawada,

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

the manager of the SEEDS program, gives the garden the appropriate resources to continue to expand. UBC faculty and staff involvement also plays an integral role in providing the necessary resources. Professor Andrew Riseman led the construction of a needed fence for the garden, as part of the AGSC450 UBCFSP. LFS staff member, Martin Hilmer, has also been a great resource. He serves as the interface between the garden and the UBC staff, and helps provide information on where to acquire necessary things, such as purchase orders. The AGSC450 classes' have also been a valuable asset to the LFSOG, as the students provide valuable suggestions on managing the garden and advancing its progression towards the vision of what the garden could be. This semester alone, the AGSC450 class is providing the garden with an integrated pest management plan, a new fence, a new compost system, a new soil analysis, and an improved growing and harvesting management plan.

DISCUSSION

This section discusses what information we were able to extrapolate from our findings and how it relates to the current situation and future of the LFSOG, with respects to management, budget, funding, and resources.

Management

We believe that a website will serve as an excellent outreach tool that will help to engage the university community and help increase awareness of the space. We foresee the website containing our proposed management scenarios, including garden management and volunteer job descriptions. This way stakeholders and interested garden patrons can view available positions, and apply for paid or volunteer opportunities.

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

The site will also be a gathering place for all LFSOG management information. We suggest it includes links to things such as planting and harvesting plans, a time-line that contains grant deadlines and hiring times, as well garden history, vision statement, events, contacts, the UBC Farm, and “How to” information. We hope that with our proposed plan and website ideas, the management plan can be improved.

For the garden to run effectively and efficiently a management plan needs to be established. A proposed management plan has been created and a time-line for major events has been drafted. These resources will aid in developing a well organized, fully functioning management system, which hopefully will continually evolve.

Through several meetings and online discussions with last year’s management team, information about the way it was managed last year was compiled, and used to create two ideal management scenarios. It is important to remember that these scenarios are within the ideal situation, and may have to be adapted to different situations, such as insufficient funding, lack of staff, poor growing seasons, etc. It is also important to remember that the garden can and has functioned with only one person in its care, although this is very difficult, and this situation will not provide the garden with the support it needs to reach its full potential.

The first proposed scenario involves having one GC, and one directed studies student running the garden. In this situation the GC is hired to fulfill almost all of the garden responsibilities. The directed studies student can then work together with the manager fulfilling their course requirements, as well as delegated duties via the garden manager. The GC and the directed studies student will both actively recruit volunteers to assist in garden maintenance. Ideally one to two volunteers are needed weekly to perform tasks such as weeding, planting, and

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

watering. The need for volunteers increases during harvesting time. The Garden Committee will provide support to this management team when needed.

In the situation where only a GC is running the space, the need for more volunteers will be increased, and the Garden Committee may help the GC with their duties, as well and help to recruit volunteers. In the situation where there is only a directed studies student available, this student will take on the role as GC and will also require the assistance of volunteers. Refer to (appendix A) for scenarios, (appendix C) for the LFSOG Management Plan Timeline and (appendix B) for a complete list of the LFSOG Committee members and their role in the helping with the garden. The timeline will provide an outline of when events need to take place, such as hiring, planting, harvesting, etc.

The second proposed scenario involves having one GC and one Outreach Coordinator. This scenario was highly recommended by previous management because it allows the coordinator to focus specifically on the garden maintenance. In this situation the GC's job description is reduced because the Outreach Coordinator becomes responsible for all of the "office like" duties and community outreach. This allows that GC to strictly focus on the physical well-being of the garden. This scenario will require the same volunteer involvement as scenario one. The Garden Committee should provide support to this management team when needed. Refer to (appendix B) for scenarios, (appendix C) for the LFSOG Management Plan Timeline and (appendix A) for a complete list of the LFSOG Committee members and their roles in helping with the garden. In both scenarios the garden committee will be responsible for filling these positions.

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Budget

We created a new budget using the same basic design of the previous year's AGS 450 class. We decided to include the costs of materials already secured through donation or funding to provide a better overall picture of the total costs of the garden (see appendix H). We also added an estimate of total sales from the previous year, which may be useful in predicting future sales (see appendix H). The money from sales can be used to cover garden expenses or be invested in the garden's expansion.

Funding

Information provided to us from each stakeholder was invaluable, in order to get our GCCG proposal submitted on time, as well as learning about students work/study programs and sustainability coordinators from (SEEDS) (for more detailed information see appendix E). Information for the GCCG was also obtained from the UBC AMS society. We used a (2008) grant proposal, from another AGSC 450 group, as a template, and revised it as we received information from stakeholders. Our research for the GCCG proposal resulted in our collaboration with the UBC farm. Mark Bomford (2009) revised the GCCG proposal ensuring to include information from AGSC 450 students, as well as from UBC LFS Professors Andrew Riseman and Art Bumke (see appendix F). Information provided to us concerning the student work/study programs and Sustainability Coordinators for the LFSOG allowed us to provide some advice and deadline dates to members of the LFS Garden Committee.

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

Research on external grants as well as other internal grants, such as the IPF grant (AMS Society) and the Student Environment Centre (SEC) fund was also done by group members working on funding for the LFS garden.

We decided to reapply for the GCCG this year as it was a recommendation from previous groups and seemed the most promising in potential of receiving funds. At first we designed a proposal using information from last year's proposal as well as incorporating the new initiatives (fence project) that have taken place over this year (see appendix G). After completing the proposal we sent it to stakeholders of the garden (Mark Bomford, Art Bomke, and Andrew Riseman) for final approval. Mark Bomford suggested incorporating our proposal with the UBC Farm's proposal in order to secure more funding for both projects. He revamped his proposal for the farm to incorporate our proposal of the garden, focusing on the Living Fence Project. Mark advised us that the Grad Council is more likely to accept new projects and this was why the focus of our proposal was shifted in this direction.

The IPF is due in the fall and received in the in the following year, which made it impossible for us to apply for it during this semester. The fund is reserved for new start up projects and is only supposed to help get the project started, until it can fund itself or find other sources of funds. From reading the application process we decided as a group that the garden would be more likely to receive this funding once its expansion has begun. The expansion we are referring to is the proposed plan to create garden space where the portable buildings now exist. With this in mind we wrought a rough draft of what the application should look like for future groups (see appendix H). Hopefully, future groups can take this draft and add the new pertinent information to apply in the future. If future groups decide to follow through with this application, they will

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

need to find a garden stakeholder who will be willing to submit the application, as it is due in the fall after AGSC450 students have usually graduated.

Resources

As mentioned in the findings section, there are two categories of resources that the garden either has or needs, material resources and human resources. The garden is currently, however, in a deficit of both material and human resources, and needs both in order to continue to expand. It would be wise for the garden to construct their own tool shed so that available material resources can be stored in a common place without a fear of misplacing them or having them stolen.

Though the need for more material resources for the garden is great, the need for more human resources greatly outweighs any other needs. Perhaps the most important resource that could be acquired for the garden, at this point, would be the steady year-round presence of someone overseeing management of the garden. There have been Directed Study students and GC's in the past; however, there are often long gaps in the turnovers of the filling of such positions. There needs to be a system or program in place that ensures there is always someone present to tend to the garden, and when their position time runs up, there is someone else ready to fill the role. Jian mentioned the potential importance for the presence of a second GC, at all times. This would help distribute the burden of managing the gardens on two people, instead of one, and would also allow the GCs to focus on other aspects of the garden, like education and community outreach. Another important aspect of human resources that the garden is in dire need of is sources of labor. Though the GC will provide much of the labor needed for

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

maintaining the garden, additional labor is needed in order to accommodate the growth and expansion of the garden's possibilities. The most viable source for labor would be through volunteers, as this comes at no cost to the garden, and it provides an opportunity to educate garden newcomers on the issues surrounding the LFSOG and urban agriculture.

RECOMMENDATIONS

As a group we decided to limit our recommendations and keep them concise, rather than creating numerous recommendations. This was because stakeholders informed us that previous year's had too many recommendations, which made the stakeholders feel overwhelmed.

Recommendations for the Garden Committee:

1. Increase communication among the members to ensure the maintenance of the garden.
 - a. Meeting more frequently (3-4 meetings/semester). Once website established, it will serve as an additional means of communication which decreases the need for face to face meeting.
 - b. Develop a communal detailed vision statement for the garden

2. Develop a clear layout of levels of management within the committee.
 - a. Develop a organizational chart w/contact information (example of hierarchy: LEVEL ONE- UBC Campus & Community Planning, LEVEL TWO-Plant Ops, SEEDS, etc, LEVEL THREE- LFS Faculty Representatives, LEVEL FOUR-Groups using the LFSOG)

3. If possible ensure that all LFS faculty programs are represented in the committee for improved integration
 - a. FNH representative currently not on the Garden Committee

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

Recommendations for the Garden Coordinator:

1. Strengthen buyer-seller relationship with Agora Eats, UBC farm, and AgUS liaisons.
 - a. Build on communication with Agora Coordinator
 - b. Determine what crops the garden can grow to fill niches not occupied by the farm.

2. Establish a volunteering program to ensure a steady source of labour.
 - a. Once developed utilize future website to gain public interest in the garden.

3. Try to hire a summer work/study program student to help with garden work over the summer (see appendix E for further details).

Recommendation for Future Land, Food, and Community Students:

1. Develop website to promote the garden within the UBC community and as a management tool.
 - a. Survey faculty and Garden Committee to determine the content of the website
 - b. Ensure that there will be someone who can maintain and update the website
 - c. Please see discussion and appendix for suggestion of the website content

2. Develop a focus group with the committee to improve means of communication, which will ensure efficient collection of research.
 - a. Establish communication with committee members early on in the project.
 - b. Establish common goals
 - c. Update the status of the garden and ensure that it is accurate among all committee members.

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

3. Research potential funds for the garden in the future including bursaries or rewards.
 - a. Discuss applying for the IPF with garden stakeholders using our proposal as a template
 - b. Find environmental grants outside of the university campus
 - c. Ensure to get approval for grant applications by garden stakeholders early giving them plenty of time to edit and get back to the group
 - d. Revise current budget and consider reapplying for any funds received in the past

Recommendations for AGSC 450 Teaching Team:

1. Developing a better structure of the assigned tasks for individual groups to improve integration of all orchard garden components (groups).
 - a. Ask students to read the entire scenario document in the beginning of semester otherwise they will be randomly assigned to a group (this will also ensure that students not only read the scenario that they are assigned to)
 - b. Create an online survey with specific questions about each scenario to know individual student interest on the project.
 - c. Develop the groups based on student answers to ensure that each student is assigned to scenario that he/she is most interested in. If the survey is not complete assign student randomly.

CONCLUSION

There are numerous resources available to improving maintenance of the LFS Orchard Garden. Members of the Garden Committee, along with others within the LFS faculty can

UBC Food System Project (UBCFSP)

AGSC 450: Winter 2009

provide physical resources such as tool, seeds and volunteers; planning and logistical guidance, and are a wealth of information. Development of a tool to facilitate better communication and organization, such as the proposed website, is of top priority. High turnover is a natural condition in the university environment. An information and document archive will aid in easing management transition from year to year. The website would also offer a method for gathering community support, specifically much needed volunteer involvement. If the garden is to expand, it will need to improve its irrigation systems, obtain more tools, and increase volunteer support. Using current funding opportunities and sourcing out new grants or distribution possibilities will also provide the garden with the capability to expand, as well as provide wages for garden staff. Currently, the LSFOG does not have one cohesive vision. Through collaboration among Garden Committee members a clear vision with shared objectives can be developed to provide clarity and focus among those involved with the garden and avoid confusion among the community at large. It is a crucial way of getting all members to pull in the same direction.

REFERENCES

City Farmer. (2009). *City Farmer News*. Retrieved March 23, 2009 from <http://www.cityfarmer.info/>

Halweil, B & Nierenberg, D. (2007). Chapter 3: "Farming the Cities" (pp.48-65) in *State of the World 2007*. New York: Norton & Company.

UBC Food System Project (UBCFSP) AGSC 450: Winter 2009

Kloppenburg, J., Hendrickson, J., & Stevenson, G. W. (1996). Coming into the Foodshed.

Agriculture and Human Values, 13 (3), 33-42. Retrieved April 2, 2009, from

<http://www.cias.wisc.edu/wp-content/uploads/2008/07/comingin.pdf>

Richer, L., Rojas, A. & Project Partners (2009). The University of British Columbia Food

System Project: Project Description [Class handout]. Vancouver, BC: University of

British Columbia, AGSC 450.

Richer, L. (2009). The UBC Food System Project: Advancing the Sustainability of

Complex Institutions [Class PowerPoint Presentation]. Vancouver, BC: University of

British Columbia, AGSC 450.

Rojas, A., Richer, L., & Wagner, J. (2007). University of British Columbia Food System

Project (UBCFSP): Towards Sustainable and Secure Campus Food System.

EcoHealth, 4, 86-94.

UBC Sustainability Office. (2008). *Get Sustainable*. Retrieved March 7, 2009,

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

Appendix A: Orchard Garden Committee List

2008/2009 Orchard Garden Committee List As Provided by Liska Richer

Member/Contact info	Role
Art Bomke, LFS Faculty fert@interchange.ubc.ca	LFS Faculty Representative: <ul style="list-style-type: none"> • To provide mentorship and support to Coordinator and volunteers. • To serve as a liaison between faculty and student body. • To serve as a primary soil management consultant. • To assist when possible with basic maintenance of the garden.
Andrew Riseman, LFS Faculty arisean@interchange.ubc.ca	LFS Faculty Representative: <ul style="list-style-type: none"> • To provide mentorship and support to Coordinator and volunteers. • To serve as a liaison between faculty and student body. • To assist when possible with basic maintenance of the garden.
Liska Richer, UBCFSP Coordinator & LFS PhD Candidate and AGSC 450 Teaching Team Member Liska@telus.net	UBCFSP and AGSC 450 Representatives: <ul style="list-style-type: none"> • To share group work with Garden Coordinator and be available for support when possible. • To serve as a liaison between Garden Committee and the Sustainability Office. • To continuously share useful resources and contacts to help Coordinator in Garden tasks. • To assist when possible with basic maintenance of the Garden.
Martin Hilmer, LFS Staff mire@interchange.ubc.ca	LFS Staff Representative: <ul style="list-style-type: none"> • To help coordinate the provision of resources needed for the Garden. • To act as liaison between staff and student body. • To provide mentorship, support to Coordinator and volunteers with the Garden. • To assist when possible with basic maintenance of the Garden.
Jeff Nulty, Landscape Designer, UBC Plant Operations jeff.nulty@ubc.ca	UBC Plant Operations Representative: <ul style="list-style-type: none"> • To provide resources in terms of maintenance of the UBC landscape • To serve as a garden design consultant.
Grazyna Rougeau, Head of Soft Landscaping, UBC Plant Operations, gardener@exchange.ubc.ca	UBC Plant Operations Representative: <ul style="list-style-type: none"> • To provide resources in terms of maintenance of the UBC landscape • To assist with basic maintenance of the garden when possible.
UBC Farm staff Ayla Harker ayla.harker@gmail.com Gavin Wright ubcfarm.learning@gmail.com	<ul style="list-style-type: none"> • To provide mentorship and support to Coordinator and volunteers. • To help coordinate the provision of resources needed for the Garden – including resources for crop propagation, supplies and volunteers.
Jian Hui Cheng, Orchard Garden Coordinator cheng.jianhui@gmail.com	<ul style="list-style-type: none"> • Review summary of four proposed Agricultural Science (AGSC) 450 garden designs, layout and production plans. • Facilitate the formation of a Garden Management Committee, consisting of faculty, students and staff who

Appendix A: Orchard Garden Committee List

	<p>will help provide mentoring and support to students, volunteers and the Garden Student Coordinator. The Garden Student Coordinator will be responsible for sharing group business proposals with the Committee, deciding on specific components to be implemented, and providing regular progress updates. Meetings should be held no less than once a month.</p> <ul style="list-style-type: none"> • Instigate and coordinate construction of Garden design (fencing, border, beds, pathway, etc.). • Establish production and harvesting plan and ensure continuous care for the Garden. • Establish buyer-seller relationships with Agora Cafes and AgUS liaison representatives. • Maintain regular communication with UBC Farm staff regarding garden updates, provision of resources, volunteers, and seek mentorship. • Implement a composting system for the Garden. • Develop promotional materials for the Garden, including signage, and if hours and funding permit the construction of a website. • Develop an educational component for the Garden, such as creating crop identifiers, developing nutritional profiles for crops, and inviting instructors to incorporate the Garden into their lessons, particularly for the fall term. • Develop volunteer positions (for weeding, watering, planting and harvesting, etc.), and recruit and coordinate volunteers to help with Garden duties. • Research bursaries/awards/grants and elicit donations for the Garden. • Develop plans to ensure Garden continuity as the summer transitions into the academic year. • Maintain a journal recording what is planted and when, dates of maturity, crop yield, weather conditions, any pest problems, and other pertinent observations. • Maintain a record of hours for coordinating position as well as for volunteers (volunteers could be asked to record and communicate hours with coordinator). • Create a brief paper outlining successes, challenges and experiences with the Garden, including a summary of recommendations for the following season based upon experiences.
Agora inventory manager	<ul style="list-style-type: none"> • To work with the Garden Coordinator in coordinating crop needs and distribution plans. • To assist with basic maintenance of the garden when possible.
Kathy Ho, AgUS Liaison kathycho@gmail.com	<ul style="list-style-type: none"> • To ensure that food waste from AgUS BBQs is contributed to the Garden composting system. • To work with Garden Coordinator in coordinating crop needs and distribution plans.

APPENDIX C: LFS Orchard Garden Management Plan Timeline

Management Scenario1 (Ideal situation)

Position 1

Job Title: Garden Manager/Coordinator

Job Duration: March- October

Hourly wage: 15\$/hour

Job Description:

- · Review summary of four proposed Agricultural Science (AGSC) 450 garden designs, layout and production plans.
- · Facilitate the formation of a Garden Management Committee, consisting of faculty, students and staff who will help provide mentoring and support to students, volunteers and the Garden Student Coordinator. The Garden Student Coordinator will be responsible for sharing group business proposals with the Committee, deciding on specific components to be implemented, and providing regular progress updates. Meetings should be held no less than once a month. (Note that a number of members for the committee has already agreed to participate consisting of representatives from UBC Plant Operations, senior faculty in the Faculty of Land and Food Systems, and students representatives from the LFS faculty student-run outlet – Agora Café and the Agricultural Undergraduate Society BBQ).
- · Instigate and coordinate construction of Garden design (e.g., fencing, borders, beds, pathway).
- · Establish and implement production and harvest plans for the Garden (e.g., responsible for crop establishment, maintenance, and harvest; pest monitoring).
- · Coordinate buyer-seller relationships with Agora Cafes and AgUS liaison representatives.
- · Maintain regular communication with UBC Farm staff regarding garden updates, provision of resources, volunteers, and seek mentorship.
- · Implement a composting system for the Garden.
- · Develop educational and promotional materials for the Garden, including signage (e.g., crop identifiers, developing nutritional profiles for crops), and if hours and funding permit, the construction of a website.
- · Recruit and manage volunteer positions to help with Garden duties (e.g., weeding, watering, planting and harvesting).
- · Research bursaries/awards/grants to help support the Garden.
- · Develop plans for the continued management of the Garden as the summer transitions into the academic year.
- · Maintain a garden journal that records the garden’s history including what is planted and when, dates of maturity, crop yield, weather conditions, any pest problems, and other pertinent observations.

APPENDIX C: LFS Orchard Garden Management Plan Timeline

- · Maintain a record of hours for both this position and the volunteers (volunteers could be asked to record and communicate hours with coordinator).
- · Write a summary report outlining successes, challenges and experiences with the Garden, including recommendations for the following season.

Position 2

Job Title: Orchard Garden Directed Studies Student

Job Duration: Term 1/ Term 2/ Term 3

Job Description: This would be determined by the directed studies student and advising professor

Management Scenario 2 (As the garden expands - Ideal future vision)

Position 1

Job Title: Garden Manager/Coordinator

Job Duration: March- October

Hourly wage: 15\$/hour

Job Description: SAME AS ABOVE

Position 2

Job Title: Outreach Manager

Job Duration: March- October

Hourly wage: ~

Job Description:

Responsible for:

- Education outreach coordinator
- Community involvement
- Website/blog maintenance (including photo and event updates)
- Communication facilitator

Volunteer Job Description

Job Duration: Casual/part-time/Permanent

Job Description:

- Help with general garden maintenance such as: weeding, planting, harvesting, watering.

Benefits: Urban agriculture experience, fresh produce, exercise, fun

APPENDIX C: LFS Orchard Garden Management Plan Timeline

September	<ul style="list-style-type: none"> ➤ Fall term begins ➤ Possible inclusion of directed studies student (will coordinate garden alone or in collaboration with paid Garden Manger) ➤ Fall Harvest begins
October	<ul style="list-style-type: none"> ➤ IPF Grant Proposal DUE ➤ Continuation of fall harvest
November	
December	
January	<ul style="list-style-type: none"> ➤ Winter term begins ➤ Garden Committee begins New Garden Manager/Coordinator Search ➤ Possible inclusion of directed studies student (will coordinate garden alone or in collaboration with paid Garden Manger)
February	
March	<ul style="list-style-type: none"> ➤ Hiring of Garden Manager/Coordinator (March-October) ➤ Development of Production Schedule ➤ Application for Grad Class Council Gift DUE
April	<ul style="list-style-type: none"> ➤ Completion of Production Schedule ➤ Volunteer search (for spring and summer months)
May	
June	
July	
August	

Ongoing engagements:

- Garden Committee Meeting (third Thursday of every month)
- Harvest of summer ready vegetables
- Continued search for volunteers
- Distribution of harvested vegetables

Please see (Appendix B) for Production Schedule used in 2007/2008

Please refer to UBCFSP Group (18) paper for an revised Production Schedule 2009

APPENDIX D: Steps to Setting up a Blog (from the LFS Learning Centre)

1) Go to this webpage:

<http://www.landfood.ubc.ca/WNG1LDP7MO30AHTMLJHLZWNHEDFNBXXFT1JGNKW7WSVGH91FZBF5.html>

Click the "link" in the top right corner.

2) Students should fill out the page. After filling out the username, email address and full name fields, they should select "Just a username, please"

3) Once everyone in the group has completed these steps, a member of the group should go to the following page and login:

<http://blogs.landfood.ubc.ca/wp-login.php>

Once logged in, they should click on the long link above again.

4) The group member should now pick out a blog name (i.e. web address). This cannot be picked carefully. The blog title can be changed later.

5) Once the blog is set up, the group member should go to this page:

<http://blogs.landfood.ubc.ca/duncan/wp-admin/>

On this page, they should click on the "Users" tab on the far right side of the page. Here they can add the other group members as "Administrators" to the blog, giving all members the same privileges.

Note:

For those having difficulties using WordPress, video tutorials can be found here:

<http://wordpresstraining.com/training-index/>

APPENDIX E: Additional Information regarding funding and staff

Sustainability Coordinator Information:

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

Summer Work/Study Program Information:

<http://blog.students.ubc.ca/careerservices/2009/03/18/work-study-summer/>

Potential External Grant:

http://www.evergreen.ca/en/cg/pdf/Walmart_Guide2009EN.pdf

Other Potential Funding:

http://www.ams.ubc.ca/student_life/resource_groups/sec/contact.html#funding

APPENDIX F: Submitted Grad Class Council Gift Proposal 2009

Project Name: The Living Fence and Beyond

Primary Applicant: The students of AGSC 450

Project Partners: The UBC Farm, FarmWonders Summer Camp, LFS Orchard Garden Group.

Context:

With the support of the Graduating Class Committee, students and faculty worked together in 2008 to create a centrally-located campus food garden outside of the MacMillan building. The “Orchard Garden” is named after the heritage apple orchard that once grew in the same location, from which a few trees still remain.

The Orchard Garden proved to be a great success in 2008, creating new opportunities for student volunteers from many different faculties to learn hands-on about sustainable food systems and production. Produce from the garden fed hungry students through the student run Agora Café, well attended community dinners, and at the UBC Farm’s Saturday farmer’s markets.

Following this very positive first year, the AGSC 450 students propose an exciting new initiative that will take the Orchard Garden to the next level, with the addition of creative new features and program links that offer new volunteer opportunities and strengthen social justice and sustainability objectives.

Project Description:

Two student leaders – the Orchard Garden Coordinator and the FarmWonders Leader – will be hired to coordinate volunteers and directly manage the creation of two new interconnected campus initiatives. The Orchard Garden Coordinator will engage students, staff, faculty, and community volunteers to: 1) create a “living fence” surrounding the garden, interwoven with edible perennial plants, 2) install new educational signage in the space, and 3) build social service links between the garden and a range of children’s learning programs. The FarmWonders Leader will transform an existing greenhouse at the UBC Farm into a summer children’s learning space. Student volunteers at both sites will work with children and aboriginal groups to strengthen inter-generational and inter-cultural links in the planning, planting, maintenance, harvest, preparation, sharing, and celebration of locally-produced food.

Physical Project Legacies:

1. A “Living Fence” created around the Orchard Garden.
2. Informational signage at the Orchard Garden, showing links to the UBC Farm.
3. Transformation of an existing greenhouse into a summer children’s learning space

Key Project Elements:

Creativity: The project transforms student creativity and vision into a reality. The “Living Fence” demonstrates how edible landscaping can be used as an innovative outdoor building material. The transformation of an existing greenhouse into a children’s classroom demonstrates a creative way to expand social programs with limited resources.

Supporting Social Justice: By enhancing and expanding our on-campus food spaces and sharing these benefits with community members from all ages and backgrounds, the project addresses food access and food security at a grass-roots level.

Supporting Sustainability: The way we produce and consume food determines, to a large degree, how we use the planet’s resources. This collaboration between the Orchard Garden and the UBC Farm demonstrates a range of ecologically-friendly food production techniques to learners of all ages.

Supporting Volunteer Programs: This initiative opens up new opportunities to student and community volunteers, including working with and sharing skills with children and offering hands-on food production experience in new locations on campus. Between the different initiatives encompassed in this project, we anticipate new opportunities for 100 volunteers.

APPENDIX G: Group's Original Grad Class Council Gift Proposal 2009

Project Name: The LFS Orchard Garden "Living Fence" Project (2009)

Applicants: The AGSC 450 Class (Orchard Project- Management Team)

(in collaboration with Dr .Andrew Riseman, The LFS Garden Advisory Committee, and The UBC Farm)

Context:

Over the last few years, students in the Faculty of Food and Land Systems- LFS 450 program have worked with faculty and the staff in creating a "teaching garden" outside of the Macmillan building. The name gives honour to the site, which was home to the original apple orchard that existed in the same location. The purpose of the LFS garden is to serve as a resource to teach and promote food sustainability on campus where students learn and practice small-scale urban agriculture. In addition, the garden provides local produce to other student initiatives such as Agora Eats, the AgUS-run community dinners and the UBC Farm. Produce from these sales are returned to the garden and used to hire work/study students. This current "Living Fence" Project is an exciting expansion of the original garden that allows for broader learning opportunities through a greater production area and the use of a wider array of techniques. It will also greatly improve the aesthetics of the garden. The site is currently designated as an informal learning space in UBC's Public Realm Plan. This improved appearance will draw more attention from students, faculty as well as community members to food system sustainability and related topics.

Benefits:

The "Living Fence project will provide students with a near-to -classroom site to investigate the biological, social, environmental and economic dimensions of food system sustainability. This is an ideal model for food security because it will directly connect students with a local food system. For example, the strong connections with Agora Eats a student volunteer-run café, commits to using local organic produce for their meals allowing students to understand the full range of issues pertaining to food systems from production to waste management. Also, as an extension of the UBC Farm which is located on south campus, the LFS Orchard garden will serve as a more readily accessible point for the community to connect with urban agriculture.

Creativity:

The LFS garden is a creative outlet for students who want to apply lecture information to a real-world situation. This year AGSC 450 "fence project" students first studied fence design theory and then applied it through their personal lens to create several proposals. This project encouraged students "to think outside of the box" and gave them all the creative liberty they desired. These individual designs were then amalgamated into the final fence plan that the students will build at the end of April 2009. Unfortunately, practical application of classroom knowledge is often an overlooked component of an undergraduate degree. This project attempts to reverse this situation.

Supporting Sustainability:

Currently our industrial, de-centralized food system is reported to be a significant contributor to greenhouse gas emissions, leading to global warming. Research has shown that local food production systems can significantly reduce these emissions. The Orchard Garden can promote sustainability by demonstrating local organic food production, pest management via agro-ecological tools, intercropping and crop rotation as well as waste management by composting. Lastly, the garden's produce will be integrated into the campus food system thereby reducing UBC's Food Mile Footprint.

Supporting Volunteers on Campus:

A **GCC grant** would be used primarily to hire a Garden Coordinator/Manager who will recruit, train, and supervise students and community volunteers. Based on last year's records, we expect, approximately 25 volunteers, providing 150 hrs labour to be engaged in this project. The Manager Coordinator will also act as an "Ambassador" for the gard

APPENDIX H: Innovative Project Fund (IPF)

Introduction:

Over the past few years, students and staff alike have worked together in forming a garden behind the MacMillan building. Originally an apple orchard existed in this space until the University developed the area to create more teaching space for students. This history inspired the title of the LFS Orchard Garden. The project has started out slow in development largely due to lack of consistent funding. It is just recently, that it has begun to be productive; supplying some local produce to other student run initiatives such as Agora Eats, the AgUS-run community dinners, and the UBC Farm. The focus of the garden is to be a mini-model for a sustainable campus food system.

Recently an initiative has gone forward to build a fence for the garden, which will give it a defined space and make it more presentable to the UBC community. So much effort has gone into making the garden productive, so it can represent a sustainable food system model, that its presentation to the public has been terribly overlooked. It becomes hard to recruit volunteers and inspire community members to get involved in local food production, when all they see is a patch of dirt. The fence project is only one of the first steps in attracting the public to the garden. In years to come the stakeholders and committee members of the garden, plan to expand the garden and create a section for a community garden. The benefits to a functional university supported community garden, on the UBC campus, to students and members of the community could be boundless. This will, at the very least, draw attention to the project and shine a light on the fact that UBC is truly at the forefront of sustainable food system research.

Benefits of the Garden to students and the community:

There are many benefits of the continuation and expansion of the Orchard Garden for UBC students. It provides students with a site to research biological, social, environmental, urban planning, and economic dimensions of a sustainable food system. The Orchard Garden will also be a source of many creative outlets for students. As mentioned previously, students invested time in designing layout options for a garden fence, which allowed students to think outside the box, and gave them creative liberty with their own personal fence design. There are also the options to develop seasonal food knowledge and skills, as well as learning about small-scale food production. The garden itself provides direct hands on practise in developing and implementing pest control management strategies and optimal crop rotation production plans. All this provides the potential to push UBC to the forefront of sustainable food system research, as well as providing students with a dynamic hands-on learning experience. Practical applications of university skill sets are often one of the most overlooked components of an undergraduate degree. Urban agriculture will provide an ideal model for food security by connecting people to their food. It will also demonstrate the connection between cities and farms by linking the campus garden to the south campus farm.

The garden will also be a source of numerous volunteer opportunities for student all across campus. One of the fundamental goals of the LFS faculty is integration, and what better way of integrating students from other faculties than opening up exciting new volunteer opportunities. The garden manager will be able to demonstrate gardening methods allowing volunteers without any agricultural experience to learn and become involved in local food

APPENDIX H: Innovative Project Fund (IPF)

production. With the support of the south campus UBC Farm and Friends of the Farm club there will be what would seem like endless hours of exciting opportunities for those who would like to get involved within the UBC community.

By expanding the garden and creating a community garden section, UBC can invite non-student community members to take part in a local food production system as well as students. The community garden could be open to all community members using a lottery system each year to see who will be granted a plot. The Orchard garden will be visible to the university community, but will also be able to be a way to outreach to members of our community who have little to do with the university. It provides a way of teaching the community, as a whole, the importance of a sustainable food system and how much fun urban agriculture can be.

Proposed use of received funding:

The funding received for the garden will go into expanding the current layout, as well as constructing a shed for tools and a proper irrigation system. Part of it may also go towards employment of a manager position if the funding for this position is not already secure. The price of the expansion of the garden will be difficult to predict until the project actually gets underway, so only a best estimate will be provided in the proposed budget.

Creating an economically sustainable garden:

Currently the garden does not make in sales to meet the salary of a general manager of the garden. Through expansion it should be able to increase production enough that revenue brought in from sales will be adequate to provide a salary for this position. Unfortunately, production will not be able to make it to this point without the funding of the IPF to initiate the expansion and start of the community garden. The community garden will also bring in extra volunteers, which will likely decrease the workload of the garden manager allowing him or her to work fewer hours. There are also other sources of funding, which are in the process of being acquired for the garden. Some past examples of sources of funding include the Grad Class Council Gift, as well as small funds from the student environment centre. Fortunately once the garden is running at full capacity the maintenance costs will be minimal in comparison with these initial costs. The profit that exceeds the yearly cost can be saved and put to use for future improvements.

Summary of project objectives:

- Provide a model for a sustainable food system
- Provide a site for food system education to the UBC community
- Increase volunteer opportunities for UBC students and community
- Supply produce to other student run initiatives
- Application of university skills through dynamic hands on experience for students
- Integration of the entire university community including faculty, students from all faculties, staff, and other community members
- Supporting sustainability and social justice through increasing accessibility to food
- Providing a creative outlet for students

APPENDIX I: Budget and Sales Revenue

Personal and Materials	Details	Costs	In-Kind-Support
Manager salary:	\$15/h X 10h/week X 17 weeks	\$2,550.00	\$0.00
Seeds and plants*	may receive donations	\$600.00	\$0.00
Fertilizer*	may receive donations	\$100.00	\$0.00
GVRD 3 bin compost	donation by UBC student environment center	\$300.00	\$300.00
Soil Samples	\$35 each X 2 (native and non-native samples)	\$70.00	\$70.00
Fence Materials	hardware, screws, wire, etc...	\$250.00	\$0.00
Perennial Plants	for outside the fence perimeter	\$300.00	\$0.00
Signage	plant identification and UBC Farm location signs	\$100.00	\$0.00
Fence Wood	wood to build donated by UBC properties Trust	\$1,500.00	\$1,500.00
Volunteer hours to build fence	15people X \$12.00/hr X 12hr	\$2,160.00	\$2,160.00
Fence Instructor (build and design)	teach students to design and erect fence (volunteer)	\$2,500.00	\$2,500.00
Tool Maintenance	replacing broken tools	\$100.00	\$0.00
Total of Cost and In-Kind-Support		\$10,530.00	\$6,530.00
Total of needs unmet			\$4,000.00

Source	Sales	Total Income from sales
Agora	\$153.50	\$1,476.25
AgUS	\$231.25	
Sprouts	\$46.00	
Independent	\$45.50	
Potato sales	\$1,000	