

Creating Sustainable Food Procurement Targets for the “AMS Lighter Footprint Strategy

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AGSC 450
The University of British Columbia Food Systems Project
Group 27 Final Report

**Scenario 2: Creating Sustainable Food Procurement Targets
for the “AMS Lighter Footprint Strategy”**

Submitted to:
Land, Food and Community III Teaching Team
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Abstract

This report summarizes the research done by Group 27 for the 2008 University of British Columbia Food Systems Project. This community based action research project was a collaborative effort between the UBC students and staff, the Alma Mater Society Food and Beverage Department (AMSFBD), the Alma Mater Society Sustainability Coordinator, the University of Guelph Hospitality Services and two of the AMSFBD's produce suppliers. It was conducted by undergraduate students with the help of the teaching team in the Faculty of Land and Food Systems, and other stakeholders involved in the effort to make the UBC food system more sustainable.

The purpose of this investigation was to determine: (a) the scope of the existing AMSFBD's sustainable food procurement policies, (b) what is being done to increase sustainable food procurement elsewhere, and (c) what potential areas exist for improvement at UBC. This research was initiated by the drafting of the AMS Lighter Footprint Strategy (AMSLFS) with the goal of having specific targets developed for less ecologically damaging food procurement. We chose to focus on local, namely BC-based food sources, to achieve these ends.

Our methods included using "A Guide to Developing a Sustainable Food Purchasing Policy" as a model for target development and collecting data through literature reviews, interviews and email correspondences with stakeholders.

We learned from the University of Guelph Hospitality Services that having one's own vehicle increases sourcing options. The challenges to sourcing local at the AMS include an overworked staff, time constraints, poor storage options for local produce, financial responsibilities to students and the need for transportation options. Challenges to sourcing local for suppliers include BC's climate, competitive pricing, handling convenience of produce for customers and having their quality standards met.

Our findings indicate that subsequent targets for the AMSFBD include (a) defining their parameters of the term 'local', (b) publicly recognizing that mushrooms are 100% BC grown, (c) implementing an electronic tracking system to help establish a baseline and (d) consistently expressing the desire to purchase local products when in dialogue with suppliers. The recommended next steps include developing an action plan, an evaluation system for the listed targets, and increasing the transparency of the purchasing system at UBC.

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I. Introduction

i. Paper Outline

In this paper we will be addressing opportunities for increasing local food procurement at food outlets on the University of British Columbia's Vancouver campus with the goal of reducing their ecological footprint. First we will introduce the context, the key stakeholders and research focus, and the vision and value assumption of the project. We will then explain the methods used for gathering data, our central findings, followed by a discussion and recommendations for further study. With the purpose of developing achievable local food procurement targets in mind, we will be using the steps outlined in "A Guide to Developing a Sustainable Food Purchasing Policy" as a model for sharing relevant information in this paper.

ii. Problem Statement

In response to the increasing popularity of sustainable ideologies, universities around the world are taking steps to implement changes on their campuses and acknowledge their role in achieving a sustainable future for mankind. On a local scale, universities aim to help maintain the social, ecological and economic wellbeing of their communities, while on a larger scale universities, as centers of progressive research, knowledge and action, are acting as sustainability role models to the global community.

The University of British Columbia (UBC) is progressing toward being a more sustainable institution. In 2007, UBC's student society, the Alma Mater Society (AMS), passed the AMS Environmental Sustainability Policy, which led to the drafting of "The AMS Lighter Footprint Strategy" (AMSLFS) (UBCFSP, 2008). The AMSLFS is designed to help reduce UBC's ecological footprint¹ and has set forth a number of targets, action plans and recommendations to promote sustainability on UBC's Vancouver campus.

One of the primary headings under the AMSLFS is to improve the sustainability of the food system at UBC (UBCFSP, 2008). This focus on food has led to the development of the research scenario "Creating sustainable food procurement targets for the "AMS Lighter Footprint

¹ An ecological footprint is the term used to describe the environmental impact of the way we live. The ecological footprint analysis measures the Earth's carrying capacity by comparing the human demands on natural resources with the Earth's ability to regenerate these resources (Doherty, 2007).

Strategy” for the 2008 AGSC 450 UBC Food System Project. In other words, the aim of this project is to assist stakeholders in developing appropriate food procurement targets for the AMSLFS at UBC.

iii. Introduction to the UBC Food System Project

The University of British Columbia’s Food System Project (UBCFSP) began in the spring of 2002. This project is carried out through community based action research and is conducted by students and a teaching team in the Faculty of Land and Food Systems (LFS), the UBC Sustainability Office, the UBC Social, Ecological, Economic, & Development Studies Program (SEEDS), the UBC Farm, UBC Food Services (UBCFCS), the AMS Food and Beverage Department (AMSFBD), UBC Campus and Community Planning, the Sauder School of Business, and UBC Waste Management. Each year the aforementioned stakeholders and a new group of LFS students evaluate the sustainability of the campus in terms of its ecological, economic and social impact on the immediate community with the major focus being on the food system. In brief, the UBCFSP is a collaborative effort by the entire UBC community to ensure the campus food system is sustainable for the generations that follow.

iv. The AMS Lighter Footprint Strategy (AMSLFS)

The AMS expresses its vision for sustainability through the AMSLFS. Aimed at campus sustainability, the main goals of this strategy are to work towards reducing UBC’s ecological footprint to sustainable levels and to serve as a leader and good example for other student organizations and institutions. The strategy strives to create a sustainable as well as equitable future for all students by providing a detailed framework that future student leaders can use to set, implement and measure long- term sustainability goals (Doherty & Stein, 2007). Examples of food procurement strategies in the AMSLFS include, “Significantly reduce the average per-serving EF of food and beverages sold by the AMS by October 31, 2011. This includes a focus on local purchasing as well as reducing high impact ingredients like meat and dairy” (Doherty 2007). The challenge here, like at other universities, is that the target is stated as a general target and the steps to achieving this goal are vague at best and thus difficult to implement. We hope to help develop detailed and tangible targets as next steps for the AMSLFS.

v. Research Focus

Given the sheer size of the UBCFSP we need to appreciate the connections that have been made between UBC and the local community in the past in order to maintain and build upon the work that has already been done. That being said, the next steps that stakeholders have identified include cataloguing the current food procurement practices at the AMS, evaluating what procedures could be improved and helping increase the sustainability of their operation through the development of sustainable food procurement targets. After reviewing previous AGSC 450 reports and other literature, we have agreed that our aim is to determine what role *local* food procurement can play in the AMSFBD. Specifically our goal is to (a) document from where carrots, onions, potatoes, peppers, cucumbers, mushrooms and lettuces are sourced (these items have been identified as the most-used produce varieties at the AMS outlets by stakeholders), (b) to investigate stakeholders' capacity to change their procurement sources, and (c) to develop reasonable targets for the AMSLFS that will decrease the AMSFBD ecological footprint.

vi. The UBCFSP Vision Statement

The UBCFSP is guided by seven vision statements which have been collaboratively developed by all partners in the project. These statements are as follows:

Vision Statement for a Sustainable UBC Food System

The overarching goal of a sustainable food system is to protect and enhance the diversity and quality of the ecosystem and to improve social equity, whereby:

- 1) Food is locally grown, produced and processed.
- 2) Waste must be recycled or composted locally.
- 3) Food is ethnically diverse, affordable, safe and nutritious.
- 4) Providers and educators promote awareness among consumers about cultivation, processing, ingredients and nutrition.
- 5) Food brings people together and enhances community
- 6) Is produced by socially, ecologically conscious producers.
- 7) Providers and growers pay and receive fair prices.

We recognize that each scenario will encompass some aspect of each Vision Statement and we are encouraged that they address issues from food production right through to waste management; they provide a good framework from which to do research.

However, several statements elicited a dialogue within our group, and so we think the Vision Statements can be further refined for future use. For instance, Statement 1 – food is locally grown, produced and processed – is very relevant to our research focus. However, we are unclear of what ‘locally’ means in this situation. It is generally understood that ‘local’ can have multiple meanings, and we feel it is important that a specific definition be provided for the UBCFSP. This is important because people must understand that there are certain constraints to sourcing food locally including ideological, climatic and economic barriers. For instance, in Canada we do not have a year-round growing season. Not explicitly recognizing such an issue is misleading because not everyone is familiar with BC’s regional food production.

Finally, Statement 7 outlines the importance of social equity in the food system. We are concerned with the use of the term ‘fair’ in this statement; ‘fair’ should read ‘a mutually agreed upon and beneficial price’ given that what is fair in the eyes of a producer may not necessarily be fair in the eyes of a grower and vice versa.

vii. Value Assumption Details of the Research Group

Though we are a group of culturally and ethnically diverse senior undergraduate students pursuing degrees in different disciplines, we all agree that sustainable food systems are of paramount importance in our lives. The ideological framework we reference while conducting our research is one of weak anthropocentrism within the ecologically integrated paradigm – in other words, we tend to prioritize human needs while recognizing that the existence of the natural world is essential to human survival.

In terms of our research focus, we recognize the value of locally grown food, and at the same time agree that food needs to be ethnically diverse, appropriate, affordable and nutritious. Furthermore, we believe that economic sustainability cannot be neglected as this is one of the three pillars of sustainability. We view UBC’s closed food system elements such as its

community of consumers, food supplier (the farm), food distribution infrastructure, and waste management systems as a model that is symbolic of the larger food system. We recognize that there are a number of limitations and challenges to overcome before policies for sustainable food procurement can be implemented, nevertheless we think that achieving even the small steps this vision is a worthwhile goal. Finally, we acknowledge that our value assumptions will play an influential role in the target setting process.

II. Research Methodology

Community based action research is the central research method used in the UBCFSP. Hills and Mullett define community based action research as “a collaborative effort between community members, practitioners, decision/policy makers and researchers for the purpose of creating new knowledge or understanding about a practical issue in order to bring about change” (2000). This approach favors consensual and participatory procedures that “enable people (a) to investigate systematically their problems and issues, (b) to formulate powerful and sophisticated accounts of their situations, and (c) to devise plans to deal with the problems at hand” (Stringer, 1999).

Accordingly, a variety of research methods were used including literature reviews, online research, phone interviews, email correspondences, and personal interviews with stakeholders. To ensure the information being collected was under informed consent, we shared the goals of our project with interviewees before requesting their participation. Unfortunately, though all participants verbally agreed to let us use the information we were gathering, receiving signed copies of the consent letters proved difficult in all cases. Given we were not conducting the interviews in person, participants found it logistically difficult and demanding to return the emailed consent forms.

To start we reviewed a selection of required food system sustainability readings for our AGSC 450 course, findings and recommendations from a selection of previous AGSC 450 research reports, the recommended readings provided for our scenario, and a number of university websites from around the world. The focus of our initial literature review was to determine: (a) how the AMS works at UBC, (b) the scope of the existing AMSFBD’s sustainable

food procurement policies, (c) what is being done to increase sustainable food procurement elsewhere, and (d) what potential areas exist for improvement at UBC. After this review, we decided to focus on increasing UBC's local food procurement and learn from the University of Guelph's Hospitality Department. A summary of the environmental, economic and social benefits of local food procurement is available in Appendix A.

In our subsequent research, we collaborated primarily with: the manager of UBC's AMSFBD, Nancy Toogood; the Sustainability Coordinator of UBC's AMS Sustainability Office, Miriam Stein; representatives from the main produce suppliers for the AMS outlets, namely Central Foods Co, LTD. and Allied Food Services; the Purchasing Coordinator from the University of Guelph's Hospitality Department, Mark Kenny; and students from the UBC community. Given that several of these stakeholders are involved in many of the research projects currently, numerous correspondences were assisted in part by collaboration with other AGSC 450 students and any mutually beneficial information was shared.

III. Findings

i. The Definition of 'Local Food Procurement'

Before we can discuss the findings related to the AMSFBD's local food procurement strategies, we must first answer an essential question: What qualifies as 'local procurement'? The term 'local' is many-sided. Contradiction exists because: (a) imposed national and political boundaries have increased the distance to geographically closer goods² (such as Washington State's apples) and (b) the limits of what we deem to be 'local' are blurred because 'local' connotes varying geographical scales³.

Coincidentally, we have discovered that the general appeal for buying 'local' is the desire to support BC farmers and thereby the BC economy⁴ as well as ensure our products meet Canadian defined safety regulations. That being said, for the purpose of this report, *'local food procurement' for the University of British Columbia refers specifically to produce that is grown in BC.*

² For example for the Vancouver market Washington State's apples are geographically closer than apples from the Okanagan, however people typically refer to the latter as being the 'local' good.

³ For example, in people's minds local can be at a municipal, regional, provincial or sometimes even national scale.

⁴ Opinion voiced by Eric Pateman, President of *Edible BC* (Telephone Interview. 1 November 2007.) Art Bomke, Riley Park resident (Telephone Interview 17 October 2007.)

ii. Sustainable Food Procurement at The University of Guelph, Ontario

In a hope of gaining knowledge about sustainable initiatives, specifically related to sustainable food procurement, and to determine where UBC ranks in terms of its sustainability initiatives in this area, we researched the work being done at other Canadian universities. We were very impressed with the advancements being made at the University of Guelph located in Guelph, Ontario. Their vision statement is: “To be recognized as the leader for local sustainability practices in a Canadian university hospitality operation becoming more environmentally responsible while remaining financially viable and satisfying the needs of our customers” (Sustainability). Guelph Hospitality Services manages seven dining facilities and two retail shops on campus. They are a self supporting department serving 18 000 meals per day (Kenny).

Guelph’s sustainability plan was presented and quantified in 2007, though many of its principals have been in practice at the university for many years. The sustainability plan can be found on Guelph Hospitality Services website⁵. There are currently twenty two initiatives underway that encompass many spheres related to sustainability; examples include biodegradable food packaging, waste management and recycling, promoting environmental awareness, co-op food purchasing, and supporting local suppliers (Sustainability). Guelph Hospitality Services also has twenty-four future sustainable initiatives with general implementation dates.

Mark Kenny, the purchasing coordinator for Guelph Hospitality Services, places local sourcing as a primary concern to reduce food miles as well as Guelph’s overall carbon footprint. Approximately 30% of food purchased is from local suppliers, where ‘local’ refers to products grown within the province of Ontario. Of that food, 5% is purchased from The Elmira Produce Auction Cooperative (EPAC). The EPAC is located 35-kilometers from the University of Guelph in the town of Elmira. This auction began operation in 2004 in an attempt to increase the revenue of family farms in the area and to encourage buyers to diversify their diets to include seasonal crops (Benes). The food sold at EPAC must be grown within 75-kilometers of the wholesale lot (Benes). Regular produce suppliers to Guelph source the remaining 25% of locally produced food (Kenny). Up to 41% of produce is sourced locally during Ontario’s main growing season,

⁵ <http://www.hospitality.uoguelph.ca/assets/sustainability/HospitalitySustainabilityInitiatives.pdf>

mid May until October (Sustainability). Purchasing the produce directly from the farmer enhances Kenny's ability to keep track of the origin of his purchases.

Kenny explained that Guelph has faced some challenges in putting into action their local food procurement policies, a major one being the transportation of produce from supply sources such as the farms or auction to the campus. At first a passenger van was used to do the food collection. Then, in the summer of 2007, a cube van with a lift gate to accommodate the loading skids of produce directly by fork lift was purchased to do the collection.

Another purchasing challenge is meeting requirements outlined by chefs' while ensuring the pricing remains competitive. Local food prices have to be viable compared to non-local alternatives in order to support the bidding staff and transport vehicles from the farms or auction to the eight kitchens on campus (Kenny). Kenny receives weekly updates from his regular suppliers, who also supply other Ontario produced goods, about crop availability and market prices for both local and non-local produce. He then determines the weekly produce demands from his chefs and goes to the auction with the market prices and requirements in mind. Kenny purchases bulk quantities of crops capable of long term storage whenever possible, to ensure the future availability of local products for a longer time. There is a large central refrigerator space for storage of produce skids that are then distributed to the dining facilities when needed.

Guelph's chefs work on a three week rotating menu. A considerable amount of time is spent translating crop availability from the farmer to the chef, and requirements from the chef to the farmer. This dialog allows menus to be adjusted depending on the conditions of the current growing season. Kenny admits that it did take some time to organize their current communication system with suppliers and farmers, but now that it is in place the process is quite streamlined. All food purchasing for Guelph Hospitality Services falls under the role of Mark Kenny; no new jobs had to be created with the introduction of the sustainable initiatives.

iii. Coordinating Stakeholder Support for the Research Project at UBC

It is important to note that a successful sustainable food procurement target will be connected to the overall goals and objectives of the organization in which it is implemented (AASHE *et al.*, 2007). Ensuring that there is support for the target research from stakeholder senior management and staff is important (AASHE *et al.*, 2007). Also, ensuring proper

communication and transparency exist between researchers and stakeholders, identifying what will encourage participation for reaching targets, and attracting support from institutional leaders who have control over budgeting, and planning are all paramount in setting the stage for achieving success (AASHE *et al.*, 2007). Therefore, it is important to discuss the plans early in the development of the targets to hear key players' concerns, suggestions, and to ensure their involvement (AASHE *et al.*, 2007).

In order to meet these objectives, a meeting was set up with Nancy Toogood, the manager of the AMSFBD, on March 4, 2008, to ensure we understood her needs as well as to receive supporting information⁶ to conduct a thorough analysis. Toogood is fully supportive of our research and she reports that her staff also supports environmental and social sustainability initiatives. Unfortunately, Toogood shared that student-elected AMS executives, who are only in office for one or two years, tend to be more financially concerned with the AMS Businesses because this is a significant source of funds for student clubs and initiatives at UBC. Nevertheless, Miriam Stein, the AMS Sustainability Strategy Coordinator, is also fully supportive of our research.

In summary, the produce procurement goals for the various stakeholders are as follows:

- Students desire nutritious, good quality and affordable produce in their meals.
- Food service providers, such as the AMS Outlets, desire produce that is economically viable, of good quality, available in large volumes, easily handled by chefs, and has a reasonable shelf life.
- UBC's AMSFBD desires to be perceived as a leader among sustainable food service providers in academic institutions.
- Suppliers desire to provide and obtain produce that can be purchased in large volumes, at cheap prices, that are easily distributed and of adequate quality.

Clearly there are some similarities and differences between the objectives of the various stakeholders. The goal is to maximize the stated collection of objectives.

⁶ In this meeting, Toogood clarified how the AMSFBD works and also provided us with copies of the procurement sheets for each of the AMS Outlets. These were reviewed with specific attention being paid to the produce specific to our research focus. We also were provided with copies of the invoices from Central Food Co. and Allied Food Services. These are of importance, because on Central's invoices the sources of their products are not listed, while on Allied they are. These are important first steps to tracking the original source of AMSFBD produce.

iv. Anticipating Challenges & Identifying and Prioritizing Opportunities

Being truthful about potential difficulties UBC may face in implementing a local food procurement target is important (AASHE *et al.*, 2007). As stated in the AASHE, “Anticipating challenges is the first step to overcoming them” (2007). We have to consider: Do the current food service providers have contracts or special vendor approval requirements? Will those act as a barrier to implementing targets? What kind of facilities are required to accommodate the cooking and storage needed to implement a new strategy? Further, we must also take into account a learning curve that may be necessary as staff may require additional training to perform successfully with a new target in place (AASHE *et al.*, 2007). Also, there may be short-term costs associated with implementing a strategy even if there are long-term gains; therefore, we must anticipate budgetary constraints as well (AASHE *et al.*, 2007). Some other challenges include on-going management constraints such as supply limitations (e.g. seasonality), service complexity (e.g. more frequent menu changes), the integration of social and environmental concerns into procurement (e.g. cost/price increases versus social and environmental concerns), and finding indicators of progress and target success (AASHE *et al.*, 2007).

v. The Challenges: The AMSFBD and AMS Outlets

Despite the environmentally focused values many of the staff at the AMSFBD live by, they are still challenged by the fact that the AMS is still predominantly putting financial pressures on the AMS Businesses rather than environmental or social pressures. As previously stated, the AMS food outlets have a responsibility to the AMS to deliver funds needed for student projects, to provide affordable food for students as well as meet food demands for foods that aren't necessarily sustainable, such as Caesar salad in January (Toogood March 19, 2008). Unfortunately, unlike at Guelph, the AMS does not have suitable storage units to keep local produce for extended periods of time. Further, as Toogood expressed, it is difficult to demand of her already overworked staff to contribute additional time to initiating better sustainable procurement policies. Also, there is no room in her budget to hire further supporting staff.

Next, the AMS does not have the acquisition capacity to buy local produce in a similar fashion as the University of Guelph. First, though the AMS does have a truck that is occasionally used to pick up produce from specialty suppliers such as Discovery Organics, this amenity is not

available to be used on a regular basis. Instead, Toogood said she would prefer to go about reducing the AMSFBD's ecological footprint by aligning herself with a produce supplier whose buying practices are more sustainable; this does not mean that Toogood desires to switch suppliers but to use her buying power to help shape the food system to be more socially and environmentally conscious. Second, the AMSFBD does not have the storage capacity to extend local harvests as is practiced at the University of Guelph. Luckily, through the Student Union Building Renewal Project the opportunity for crop extension currently exists and this idea should be taken into consideration when drawing up the plans for the new building.

The last challenge is the current inability of the AMSFBD to track what produce is coming from where and to consequently evaluate what percentage of their produce is local. Without this capacity, we are unable to establish a strong baseline or evaluate change in the system should it happen.

Opportunities include the fact that the AMSFBD does not enter into binding contracts with suppliers, though they do sign two-year contractual agreements that define the terms of service such as the price of goods and delivery methods with their produce suppliers. Consequently they are free to leverage UBC's buying power to push suppliers to be more environmentally and socially conscious purchasers. Another opportunity is that the AMS Outlets are willing to accommodate changes such as substituting products to use more local produce should it become available (Toogood meeting, March 19, 2008).

vi. Produce Supplier Challenges: Central Foods Co (Central) and Allied Food Services (Allied)

Both produce suppliers, Central and Allied, have indicated that they are willing to accommodate the needs and any special requests outlined by the AMSFBD. This is an opportunity because it demonstrates that suppliers are willing to work with UBC to better their food services and thereby the food system. Nevertheless, there are many barriers to sourcing produce locally, and despite efforts to coordinate with sales representatives about the specifics of the available opportunities, they were very vague about helping set up any achievable targets.

First, Central said they are willing to accept orders for local foods as specialty items; we assume price increases would be associated with this, but despite several follow ups, no response was provided to date. Allied too is willing to work with the AMSFBD to procure as much local

produce as possible if the produce meets the company's acquisition standards (B. Chow, personal communication, March 17, 2008). Next, according to Allied the quality of the produce is especially important for produce that will be chopped, sliced, or diced – it needs to be able to withstand the mechanical processing before distribution. However, since the AMSFBD buys mostly unprocessed produce, these quality standards do not have to be taken into account. Another positive finding is that Allied reports that when both local and non-local produce sources are available, local sources seem to be 10-15% cheaper than the non-local ones. This saving results mainly from decreased freight charges, particularly related to fuel costs.

However, though both companies try to buy local whenever they can, after interviewing representatives from Central and Allied, a number of constraints in procuring local produce have been identified. First, though there seems to be price incentives to buy locally grown produce, suppliers still need ample warning of when and where products are going to be available; since they are working at an industrial scale they tend to source their produce from growers in areas that can produce year round. For instance, Allied reports that in a given year they procure approximately 80% of their produce from the United States, most of which comes from California (B. Chow, personal communication, March 17, 2008). Moreover, smaller local farms are difficult to deal with because large suppliers like Central do not want inconsistencies in their produce supplies. For instance, small farms will have different harvesting times and variation in their products because of differences in the soil, micro-climate conditions or the farming practices being used by farmers. Hence, small farms are not as dependable as larger ones to deliver the needed quantities and consistent quality associated with monocultures. Therefore, logistically it is less appealing for suppliers such as Central to work with smaller local farms.

Next, climatic factors are also a constraint to both suppliers because the weather determines the availability of local produce. In B.C. it is not possible to supply many produce locally year-round and the prime harvesting season is from June to early-October because of temperature, precipitation and daylight constraints. With respect to providing for the AMSFBD it is unfortunate that this harvesting season does not coincide with the times of the year when UBC is in full attendance.

One of our research goals is to document from where the AMSFBD outlets get their most-used produce. Central was most explicit about where they get the specific items we were researching. As stated by Carolina Gonzales in a phone interview on March 21, 2008:

- Cucumbers
 - Hot House Long English Cucumbers come from B.C in small amounts
 - Cheaper priced Long English Cucumbers in bulk come from Mexico
 - White Spine Cucumbers come from Mexico
- Carrots
 - Snap Top Medium Carrots come from California
 - Jumbo Carrots come from California
 - China Jumbo Carrots come from China
- Mushrooms come from B.C. year-round
- Peppers (all colours) come from Mexico
- Onions come from Washington and Mexico
- Tomatoes (all kinds) come from Mexico
- Potatoes
 - Small Red Potatoes come from BC
 - Bakers Potatoes (80-count) come from Washington
- Green leaf lettuce come from California

During this correspondence it was shared that the product sources don't change year round because of relationships with specific suppliers. It is possible to switch but is considered unfavorable and timely.

Additional information was reported in an earlier phone interview with Central. For instance, it was confirmed that BC mushrooms are available year-round and that potatoes can be sources locally 10 months of the year (A. Wong, personal communication, March 18, 2008). (During the other two months, it is too cold to grow potatoes and the farmers' stores usually run out.) Also reasons for procuring onions from Washington include the high water content of BC onions because of the BC climate, moisture which leads to finished product problems. However, unlike the preceding interview, at this time it was shared that cucumbers are sourced from *local*

greenhouses except during the three to four months when replanting is required. And peppers, though occasionally obtained from local fields are mostly from the *United States* (not Mexico) because BC Hot House cannot compete with the US in terms of price.

Clearly conflicting information is being reported. And as a consequence to the AMSFBD, if their suppliers cannot accurately or consistently account from where they are getting their produce, how can the AMSFBD be able to monitor the scope of their local produce procurement?

Other barriers to local food procurement identified by the suppliers include the product price of local goods and the inability of local growers to meet the volume demands of suppliers. For example, Central claims that imported tomatoes are less expensive than locally produced tomatoes even after accounting for transportation costs (A. Wong, personal communication, March 18, 2008). In order to offer competitive pricing, procuring from non-local sources is necessary because customers want the lowest prices but local sources may not be the least expensive at the time of order. Furthermore, if local sources cannot meet the demands of a customer in terms of quantity, suppliers must look for other producers (B. Chow, personal communication, March 17, 2008).

Another constraint to buying BC produce is inadequate quality. Both Central and Allied have their own standards for acceptable produce quality; the suppliers say they act as filters to reduce customer problems at the site of operation. For example, something that is not obvious to individual consumers is Central's claim that local romaine lettuce tends to be very dirty, making it hard to clean on a large scale (A. Wong, personal communication, March 18, 2008). This hinders the temporal and financial efficiency of the operations at an institution such as UBC which pushes suppliers to choose alternatives to local sources. Moreover, Allied has independent standards for their produce sources. For instance, Allied has third party audits twice a year to ensure appropriate quality; growers and suppliers to Allied must be Hazard Analysis Critical Control Point (HACCP)⁷ certified or in the process of being certified. That means even

⁷ HAPPC is a scientific and systematic approach to ensure food safety by identifying potential hazards during the manufacturing process then implement control measures at specific points during that process (OMAFRA, 2007). Furthermore, Allied Food Services have a quality assurance department that perform microbial testing to ensure they are within a specified range of safety and to prevent or reduce potential biological, chemical and physical food safety hazards.

if a local supplier has produce available, if their standards do not meet Allied's standards, it will not be accepted (B. Chow, personal communication, March 17, 2008).

Last, the handling convenience of produce is another factor that must be considered during purchasing. For example, tomatoes from BC Hothouse have a greenhouse sticker that is considered a hassle for chefs to remove in large quantities – the manual labour associated with this task is an added cost to operations (A. Wong, personal communication, March 18, 2008).

IV. Discussion

i. Target Baseline

After speaking with the produce suppliers and the AMSFBD, it can be said that the purchasing of produce for the AMS Outlets is being done under a self-governed baseline of what individual purchasers deem to be most sustainable. In other words they are doing 'the best they can'. If this is the baseline, then a challenging goal for the AMSLFS is to detail and institutionalize standards of 'best practice food procurement'. However, given the current state of the system, the scale at which the AMSFBD is working, as well as the scale at which both Central and Allied are working, it appears that will be very difficult to make any significant changes to the procurement practices. Nevertheless, some strides towards increased sustainability and a decreased ecological footprint can be made.

ii. Target Types

Following the guidelines set by the AMSLFS, AMS targets can be categorized into two groups. The first, internal targets are targets that the AMS can implement without the involvement of external parties. The second, interactive targets are targets that the AMS requires the assistance or cooperation of another organization to achieve their goal. These two types can also be categorized as either qualitative or quantitative targets. A qualitative target has no specific quantitative goals stated to be met by a certain date. An example of an internal qualitative target would be: "The AMS targets a significant reduction in the average per-serving ecological footprint of food and beverages sold by the AMS by October 31, 2001" (Doherty, 2008). On the other hand, a quantitative target has clearly defined goals describing the rate at which change is being achieved and the ultimate goal for the target. An example would be: "The

AMS will work with UBC Land and Building Services (Sustainability Office) to reduce SUB energy consumption and greenhouse gas emissions by at least 33% by 2020” (Doherty & Stein, 2008). Qualitative targets are often established when there is inadequate data to determine a baseline, and more data is collected over time, qualitative targets will evolve into quantitative targets (Doherty & Stein, 2008). A hierarchy of preferences should be addressed when setting the targets, such that preferences are assigned based on a product’s various defining characteristics such as its geographic source (regional, provincial, national or international), farm source ownership type (independent, cooperative or corporate), and the farming practices used in its production (organic, integrated pest management or conventional). Well-defined targets when assigned priority levels allow an institution to measure the performance of each goal independently to facilitate inter-categorical comparisons and to track year-to-year achievements or losses (AASHE et al., 2007).

iii. Setting Targets for the AMSLFS

Based on our findings, we believe the following targets are necessary first steps to achieving sustainable food procurement and a decreased ecological footprint for the AMSFBD:

Internal Targets

1. Clearly define the meaning of the term ‘local’ for the AMSFBD. (September 2008)

Without a clear understanding of what is included in the local realm for food procurement, it will be impossible to track and ensure that ‘local’ products are being purchased.

2. Publicly recognize that mushrooms purchased from Central Foods Co. are 100% local year round. (Ongoing) This discovered information is worth highlighting because it is already a reality and has not been recognized to date.

Interactive Targets

3. Develop a tracking system in coordination with Central Foods Co. as the primary produce supplier to the AMS Food and Beverage Department to electronically track (a) the

geographical source of produce and (b) the volume of produce being sourced within BC. A good step might be to start with the eight listed items, namely carrots, tomatoes, onions, cucumbers, peppers, potatoes, mushrooms and lettuces so as not to be too overwhelming. (September 2010) Inconsistent or absent information about the sources of produce are a major barrier to improving the AMSFBD connection to local agriculture. Before advancements can be made, a strong baseline needs to be established. It will be beneficial, as was seen at Guelph, to start small, establish a system, and then expand.

4. Specify the desire to purchasing local products when in dialogue with suppliers and request relative price differences between local and non-local produce. (Ongoing) Suppliers are eager to serve customer needs, especially those with as much clout as UBC. Letting them know local is important will help change their buying regimes.

5. Express the need for additional storage facilities in the SUB Renewal Project for local crop extension during the soon approaching design phase of the project. (Immediate) The SUB Renewal motion was officially passed on April 9, 2008.⁸ Plans for this project have been in the works for years, nevertheless the designs have not been finalized.⁹ Given that there are high sustainability goals for the project, recommendations to improve the sustainability of the food system on campus as well as regionally should be well received.

At this stage, only qualitative targets have been established because there is insufficient data to determine a complete baseline. For example, a quantitative target for local produce purchases in the future could be to “increase local produce purchasing of a given set of product by 5%”. But, this is not a feasible target until we have tracked the specific volume of produce being bought through current operations. This data can be obtained by reaching the 3rd target stated above. Thus an originally qualitative target can then evolve into a quantitative target.

⁸ <http://www.ams.ubc.ca/yes/?page=news>

⁹ <http://www.ams.ubc.ca/yes/?page=q1&sub=1>

V. Recommendations

Based on our findings, to progress toward achieving the AMSFBD's end goal of decreasing their ecological footprint through their food procurement, we offer some ideas for stakeholders¹⁰ to consider.

i. Create an Action Plan

Determine how the listed targets can be achieved. An action plan should specify WHO will do WHAT and WHEN. The timeframe in which an action will be completed can be further categorized into short-term and long-term strategies (Doherty & Stein, 2008).

ii. Create an Evaluation Plan

- Establish indicators that will enable a person to conclude that the listed targets have been achieved.
- Once a tracking system is implemented devise a yearly evaluation plan for local food procurement. Through the evaluation process challenges and barriers can be reviewed, providing the opportunity to generate new ideas, refine guidelines, make improvements, and set new targets (AASHE et al., 2007).

iii. Communicate Your Effort and Your Accomplishments

Improve the transparency of the AMSFBD's efforts and accomplishments through easily accessible online documentation. The University of Guelph has successfully communicated its accomplishments through its official website. Though the AMSFBD has made strides in publicly displaying their efforts, the work is not easily accessible online. Improving the AMSFBD's transparency in this manner will trigger more inspiration and gain greater support for the sustainable food procurement initiatives internally (among staffs, students or participating members of an institution) and externally (among food producers, wholesalers, other institutions or the general public).

¹⁰ This includes the 2008 AGSC 450 class.

iv. Investigate transportation

Conduct further research on the constraints preventing the AMSFBD from using a UBC vehicle for local food purchasing. If these barriers can be overcome, some local produce can be bought from farmers' markets or local farms. With a strong action plan for monetary support for the vehicle, the AMSFBD could create more direct relationships with the growers in the area.

VI. Conclusion

The UBC Food System Project is an ongoing process; the 2008 AGSC 450 community have identified several areas for further research where the 2009 AGSC 450 class will carry on. As seen in this paper we were able to uncover some valuable information on the sustainability of the AMSFBD produce system. However, with every question answered, five more questions arose, and due to the time constraints of this course we have had to leave these questions for future students or community stakeholders to resolve in the coming years. We feel that we have set a solid foundation for future study and have made strides in understanding the research focus we set out to resolve, namely to better understand the produce procurement strategies being implemented by the AMSFBD and their suppliers and to help set detailed targets to decrease the ecological footprint of the AMSFBD in the long-term. Nonetheless, our efforts are only one part in the incremental process of determining the ways of improving the sustainability of produce distribution at UBC.

VII. Appendix A

Introduction to Sustainable Food Procurement

Food is a basic human need; therefore, our food choices contribute significantly to the environmental and social aspects of sustainability. We require food for our survival and good health; it connects us with the environment (AASHE, 2007). Some of the most important issues associated with food purchasing in the context of local food procurement include effects of climate change due to increased CO₂ emissions from increased food transportation, weakened local economies and social degradation due to the loss of farms and rural communities, food safety concerns associated with the need to preserve foods with food additives to prolong shelf life and lost nutritional value of food (AASHE *et al.*, 2007). So it is important to understand how buying locally grown produce improves the sustainability of the UBC food system and decreases their ecological footprint.

The Benefits of local food procurement

Environmental:

A “food mile” is defined as the distance a given food travels from where it is grown to where it is eaten. Pirog et al. (2001) showed that conventional supermarket foods travel an average of 1,546 food miles whereas local foods travel on average only 44.6 food miles – the greater the distance a food item travels, the higher the amount of greenhouse gas emissions are generated. Further, air transportation is considered the number one cause of CO₂ emissions followed by road and sea transportation options (MacLeod & Scoot, 2007). Food items that travel by these means thereby contribute to atmospheric and environmental degradation. Therefore, focusing on local food procurement would see a dramatic reduction in CO₂ emissions.

Economic:

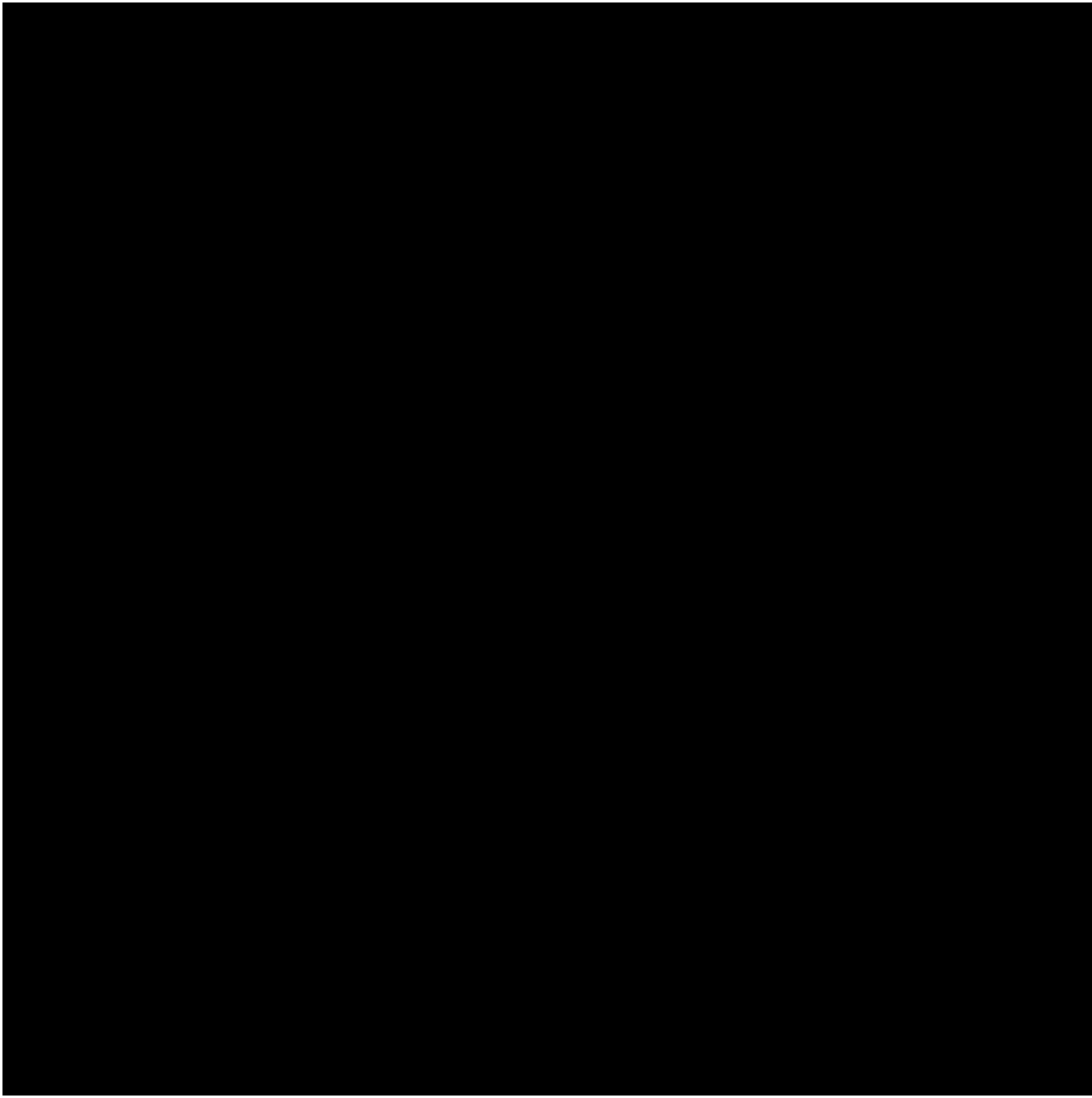
Economic benefits for local food procurement derive from increased support for local food economies. Since more financial resources will remain in the local market, farmers can profit from the stability this provides and maintain strong local production. As well, local economic growth has the potential to boost local employment opportunities (MacLeod & Scoot, 2007).

Social:

By definition, food security exists “when all people at all times have access to nutritious, safe, personally acceptable and culturally appropriate foods that are produced, procured and distributed in ways that are environmentally sound and socially just” (Fairholm, 1998). Local food procurement enables societies (and institutions) to be more food secure by minimizing people’s reliance on imported foods. In addition, Jones (2001) suggests that locally produced fruits and vegetables have greater nutritional value than imported ones; nutrients are lost as the

time from farm (harvest) to table (consumption) increases. For example, vitamin C level in fruits and vegetables such as apples, carrots and tomatoes declines immediately after harvest due to the exposure to heat, air and light. (MacLeod & Scoot, 2007).

In sum, should targeting local food procurement for UBC be feasible, it will allow the university to move toward a more sustainable food system. However we must first explore the goals, expectations and limitations faced by all participants including the food producers, suppliers, buyers, and consumer community.



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